

EQUITY RESEARCH

August 11, 2022

Earnings Update

ALTUS GROUP LIMITED

Analytics Benefitting From Platform Approach

Our Conclusion

Altus reported a solid Q2 that was in line with headline estimates and showed strong organic growth in Altus Analytics and Over Time revenue. Extended tax cycles in the U.K. and Ontario drove property tax growth in the quarter, although partially offset by FX. Altus' transformation into a CRE data and analytics provider appears to be well on track, with improvements still to come as the platform backbone is further built out. While we like the strides made in transitioning the business, we still prefer to remain on the sidelines due to valuation, with the shares currently trading at 17x our 2023 EV/EBITDA estimate. We rely on a sum of the parts for our valuation, applying a 23x multiple on analytics and 13x on CRE consulting, leading to our \$58 price target (from \$54 previously).

Key Points

Strategic Transformation On Track: Altus' plans to become an intelligence-as-a-service provider are progressing well, as new acquisitions are contributing growth, while also enhancing the capabilities of other analytics assets. Altus will roll out its Performance Platform in Q4 that will unite the tech stack, leading to stronger data integration and engineering efficiency. Prior to the full platform being rolled out, Analytics saw Q2 constant currency (c.c.) organic growth of 26% and Over Time c.c. organic growth of 28%. In the medium term, we expect Analytics to generate adjusted EBITDA margins of ~30%, and our 2023 forecast calls for 500 bps Y/Y expansion to 21.8%.

Limited Impact From Macro Backdrop: To-date, inflation and rising interest rates have had a minimal impact on Altus' sales activity. Altus clients and their investments are particularly impacted by macroeconomic factors and they rely on Altus solutions to help navigate complex and constantly changing situations. CRE investors continue to turn to technology to enhance their operations and minimize expenses by limiting headcount. Recurring bookings grew by a high double-digit figure in the midst of the uncertainty, underlining the value that Altus Analytics provides.

Property Tax Update: Q2 is a seasonally strong quarter for the property tax business, with U.K. annuity billings paid out. Year-to-date, the property tax business has been driven by a rebound in U.S. settlement volumes while Canada remains flat Y/Y and the U.K. is modestly down, given FX headwinds and a slowdown in settlement volumes. With 2022 marking the final year of extended tax cycles in the U.K. and Ontario, management expects 2023 tax revenue and adjusted EBITDA to be below 2022 levels.

Amended Credit Facility: Altus increased the size of its credit facility from \$400 million to \$550 million and the funded debt to EBITDA covenant from 4.0x to 4.5x. While management noted that there were no specific acquisitions on the horizon, we expect that management would only extend leverage above the current 2.6x level for a material acquisition. In terms of targets, we expect a focus on Analytics capabilities or property tax tech.

All figures in Canadian dollars unless otherwise stated.

Please see "Price Target Calculation and Key Risks to Price Target" information on page 5. For required regulatory disclosures please refer to "Important Disclosures" beginning on page 6.

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

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

Natalie Zhang, CFA
+1 416-581-2120
Natalie.Zhang@cibc.com

Neutral

AIF-TSX, Sector: Real Estate

Current Price (8/11/22): C\$55.36

Price Target (12-18 mos.): ↑ C\$58.00

Previous: C\$54.00

CIBC Estimates and Valuation

(Dec. 31)	2020	2021	2022	2023
Adj. EPS	1.66A	1.90A	1.74E	1.88E
Prior			1.56E	2.37E
Adj. EBITDA(mln)	98.9A	109.7A	132.0E	158.1E
Prior			132.1E	150.1E

Adj. EPS	Q1	Q2	Q3	Q4
2023	0.24E	0.74E	0.36E	0.54E
Prior	0.98E	0.44E	0.43E	0.51E
2022	0.27A	0.77A	0.26E	0.44E
Prior		0.41E	0.40E	0.48E

Adj. EBITDA(mln)	Q1	Q2	Q3	Q4
2023	27.8E	51.9E	37.5E	41.0E
Prior	27.4E	45.9E	36.5E	40.3E
2022	17.7A	49.7A	29.5E	35.0E
Prior		49.6E	29.9E	34.8E

Valuation	2020	2021	2022	2023
P/E	33.4x	29.1x	31.9x	29.4x
EV/EBITDA	27.0x	24.3x	20.2x	16.9x

Stock Performance and Key Indicators

Enterprise Value:	C\$2,668M	Shares O/S:	44.5M
Market Cap.:	C\$2,464M	Float:	44.2M
52-wk Range:	C\$41.52 - C\$71.96	Div. / Yield:	C\$0.60/1.08%

TSX Composite Index vs. AIF-TSX



(Source: FactSet)

Altus Group Limited (AIF-TSX) — Neutral

Price (8/11/22) C\$55.36 12-18 mo. Price Target C\$58.00

Sector: Real Estate

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

Peer Comparison	2020	2021	2022E	2023E
P/E - Real Estate Services	40.0x	24.3x	22.3x	-
P/E - Altus	41.3x	41.7x	49.0x	-
EV/EBITDA - Real Estate Services	23.7x	17.3x	14.9x	-
EV/EBITDA - Altus	32.5x	30.4x	25.5x	-
P/FCF - Real Estate Services	8.7x	10.1x	-	-
P/FCF - Altus	40.5x	44.8x	-	-
Key Financial Metrics	2020	2021	2022E	2023E
Net Debt/EBITDA	0.5x	2.1x	-	-
Sales Growth	(1.1%)	11.4%	18.7%	7.1%
Per Share Data	2020	2021	2022E	2023E
FCFPS	1.60	1.10	1.03	2.04
Adj. EPS Dil.	1.66	1.90	1.74	1.88
Wgt Avg # of Shares	40.1	41.7	44.4	45.8
FD Number of Shares	38.4	38.4	38.4	38.4
Income Statement	2020	2021	2022E	2023E
Revenue	561	625	743	795
Tot Operating Exp	465	532	632	656
OpEx (% of Revenue)	82.82%	85.10%	85.14%	82.47%
Adj. EBITDA	99	110	132	158
Adj EBITDA Margin	17.6%	17.5%	17.8%	19.9%
D&A	(42)	(47)	(61)	(58)
Interest Expense	(7)	(6)	(16)	(27)
Pretax profit	38	34	16	55
Tax Expense	11	9	4	10
Net Income	22	26	11	45
Net Margin	4.8%	4.1%	1.5%	5.6%
Cash Flow Statement	2020	2021	2022E	2023E
Net CFO	72	56	69	100
Capex	(8)	(11)	(23)	(7)
Free Cash Flow	64	46	46	93
Balance Sheet	2020	2021	2022E	2023E
Cash & ST Investment	70	51	85	155
Intangible Assets	78	287	278	240
Goodwill	261	467	478	478
Total Assets	735	1,199	1,209	1,244
ST Int-Bearing Debt	0	0	0	0
LT Int-Bearing Debt	122	287	343	343
Total Liabilities	352	610	659	672
Shareholders' Equity	383	589	551	572

Source: Factset, Company Reports and CIBC World Market Inc.

Company Profile

Altus is provider of independent advisory services, software and data solutions to the global commercial real estate industry with more than 2,300 employees

Investment Thesis

Altus' strategy has been to consolidate the real estate services business through acquisitions and to cross-sell and expand its information services offering.

Price Target (Base Case): C\$58.00

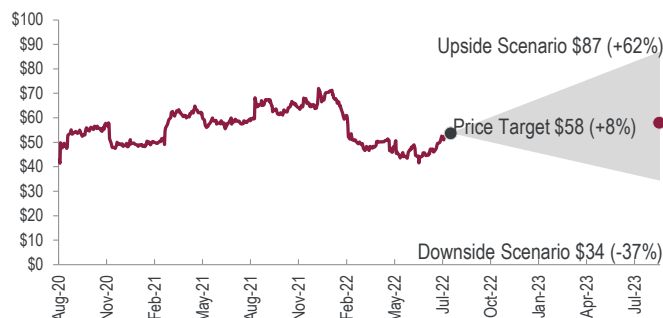
Our price target of \$58 is calculated using a sum-of-the-parts valuation that uses a 13x EV/EBITDA multiple on the CRE Consulting business and a 23x EV/EBITDA multiple on the analytics division.

Upside Scenario: C\$87.00

Our upside is calculated using \$400 Million in Analytics Revenue, a 30x EV/EBITDA multiple on the Analytics Revenue and CRE Consulting growth of 3% and a 16x EV/EBITDA multiple.

Downside Scenario: C\$34.00

Downside is calculated using 2% revenue growth and a 20x EV/EBITDA multiple on the Analytics business and -5% growth and a 10x EV/EBITDA multiple on the CRE Consulting Business



Financial Summary

Divisional Results: Analytics revenue of \$82.1 million was up 37.0% Y/Y in constant currency, and margins in the division were 16.8%, up 180 bps Y/Y. Over Time analytics revenue was \$70.9 million in the quarter, up 40.6% Y/Y in constant currency.

Revenue in the Tax division was \$94 million, up 10.5% Y/Y in constant currency with margins of 45.0% compared to 45.8% in Q2/21. Revenue in the Valuation and Cost Advisory segment was \$31 million, up 12.9% Y/Y in constant currency with margins of 14.6% up 470 bps Y/Y. The cloud migration is on track, with 52% of AE users now on the cloud and management expects to convert the majority of users by end of 2023.

Exhibit 1: AIF – Financial Summary – Q2/F22

	Q2-F2022			Q2-F2021	Y/Y%	Q1-F2022	Q/Q%
	Actual	CIBCe	Cons.				
Consolidated							
Revenue (\$mm)	206	203	202	174	19.0%	168	23.2%
Altus Analytics	82	73	79	59	38%	80	2.3%
Property Tax	94	102	94	87	8%	58	60.0%
Valuation and Cost Advisory	31	28	28	28	12%	29	6.7%
Adj. EBITDA (\$mm)	49.7	49.6	48.8	42	18%	18	180.4%
Adj. EBITDA Margin	24.1%	24.4%	24.2%	24.3%	-1%	10.6%	127.6%
Adjusted EPS	0.77	0.41	0.69	0.75	2%	0.27	187.6%

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

Changes To Our Model: We have updated our model to reflect Q2 results and the strong Analytics organic growth as well as commentary on 2023 tax revenue and Adjusted EBITDA coming in below 2022 level.

Exhibit 2: ISV – Changes To Our Model – 2021 - 2023E

	Revenues (\$MM)	Adj. EBITDA (\$MM)	EPS (\$)
2021A	625	110	1.90
2022E			
CIBC est. – new	743	132	1.74
CIBC est. – prior	736	132	1.56
Consensus	737	135	1.94
2023E			
CIBC est. – new	795	158	1.88
CIBC est. – prior	778	150	2.37
Consensus	789	149	2.28

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

Environmental, Social and Governance (ESG) Metrics for AIF-TSX

CIBC ESG Metrics

Governance Metrics	2017	2018	2019	2020	2021
Insider Ownership	1.7%	1.7%	1.1%	1.0%	0.5%
Board Gender Diversity	37.5%	37.5%	37.5%	37.5%	37.5%
Separation of Chair & CEO	YES	YES	YES	YES	YES
Dual-class Ownership?	NO	NO	NO	NO	NO
Disclose ESG Data?	NO	YES	YES	YES	YES
Social Metrics	2017	2018	2019	2020	2021
CEO Comp./Mkt Cap*	\$1.2	\$1.0	\$1.5	\$1.3	\$0.7
Diversity Targets	NO	NO	NO	NO	YES
Women Managers	22%	22%	19%	20%	30%
Environmental Metrics	2017	2018	2019	2020	2021
Emissions Intensity**	NA	NA	NA	NA	NA
Net-zero Targets?	NO	NO	NO	NO	NO

*CEO Compensation is shown as per thousand dollars of market capitalization

**Emissions Intensity calculated as total emitted CO₂e divided by million \$ of CAD revenue

Sustainalytics ESG Risk Rating



Sustainalytics ESG Risk Rating Ranking

UNIVERSE	RANK (1 st = lowest risk)	PERCENTILE (1 st = lowest risk)
Global Universe	108/14443	2nd
Real Estate INDUSTRY	23/1014	3rd
Real Estate Services SUBINDUSTRY	4/25	13th

Sustainalytics Material ESG Issues

These are the Material ESG Issues driving the ESG Risk Report

Issue Name	ESG Risk Exposure Score Category	ESG Risk Management Score Category	ESG Risk Rating Score Category	Contribution to ESG Risk Rating
Corporate Governance	9.0 High	60.5 Strong	3.6 Low	40.2%
Human Capital	4.0 Medium	34.5 Average	2.7 Low	30.4%
ESG Integration -Financials	3.2 Low	17.8 Weak	2.6 Low	29.3%
Overall	16.2 Low	45.9 Average	8.8 Negligible	100%

CIBC Quantitative Scorecard

Within Sector			Within S&P/TSX Comp.		
Style	Rank	Delta	Style	Rank	Delta
Value	42	-1	Value	184	+180
Momentum	28	+9	Momentum	139	+227
Quality	22	0	Quality	134	+138
Market	28	-3	Market	183	+181
Low Volatility	46	-1	Low Volatility	111	+123
Growth	42	-2	Growth	223	+229

Note: Ranking out of 46 stocks

Note: Ranking out of 237 stocks

General Notes Behind the Quantitative Scorecard

Delta refers to the change in the ranking over the past month. Number of stocks "Within Sector" is defined by the number within the GICS. In the "Within S&P/TSX" category, we use all stocks in the S&P/TSX Composite. For detail on the Quant Factors included in each style above, please contact the CIBC Portfolio Strategy Team.

The table above is based upon quantitative, statistical, and mathematical analysis and is not intended to serve as a fundamental recommendation.

CIBC Technical Scorecard

Factor	TSM Score	Factor	TSM Score
TSM	7	Momentum	C
Beta	0.78	MACD	A
Volatility	↔	Alpha (Sector)	B
Trend	↗	Alpha (Index)	B
RSI	Neutral		

General Notes Behind the Technical Scorecard

TSM: The Trendspotting Matrix uses technical factors to score uptrend durability.

Momentum and alpha metrics compare performance over one-month, one-quarter and one-year timeframes, outputting a rating from A to D.

Trend/Volatility metrics measure price deviations relative to underlying moving averages.

RSI is an oscillator that provides mean-reversion estimations.

MACD is a momentum indicator rated from A to D based off the strength of its signal.

The table above is based upon a technical methodology that examines the past trading patterns and trades and is not intended to serve as a fundamental recommendation.

Price Target Calculation

We value Altus on a sum-of-the-parts basis under the current capital structure, valuing the CRE Consulting business and Analytics business separately. We apply a 13x EV/EBITDA multiple to the Commercial Real business and 23x EV/EBITDA to the Analytics business.

Key Risks To Price Target

The primary risks to our price target include the following: 1) Integration risk from recent acquisitions; 2) Risks involved with Analytics' strategic shift; 3) Upside risk related to accelerating Analytics Growth; 4) Upside risk related to M&A that creates further revenue synergies; and 5) accelerated Argus Cloud Adoption leads to faster-than-expected revenue growth and margin expansion

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 Altus Group Limited (AIF.TO)

- 1b CIBC WM Inc. makes a market in the securities of these companies: Altus Group Limited
- 2a These companies are clients for which a CIBC World Markets company has performed investment banking services in the past 12 months: Altus Group Limited
- 2c CIBC World Markets Inc. has managed or co-managed a public offering of securities for these companies in the past 12 months: Altus Group Limited
- 2e CIBC World Markets Inc. has received compensation for investment banking services from these companies in the past 12 months: Altus Group Limited
- 2g CIBC World Markets Inc. expects to receive or intends to seek compensation for investment banking services from these companies in the next 3 months: Altus Group Limited

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 11 Aug 2022)	Count	Percent	Inv. Banking Relationships	Count	Percent
Outperformer	164	52%	Outperformer	164	100%
Neutral	132	42%	Neutral	132	100%
Underperformer	8	3%	Underperformer	8	100%
Tender	4	1%	Tender	3	75%
Restricted	7	2%	Restricted	7	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.

© 2022 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.