

December 2020

Canada Market Structure Monthly



MARKET MICROSTRUCTURE OBSERVATIONS

- TSX-listed average daily volume decreased to 802M shares in December 2020, a 4% decrease MoM and a 23% increase YoY.
- Non TSX-listed average daily volume surged to 882MM shares in December 2020, a 74% increase MoM and nearly 3x increase YoY. Nine of the top ten traded names were pharmaceutical or biotech companies which have come into the forefront off the back of the COVID-19 vaccine rollout. Most of these stocks trade below \$0.50 per share, so notional value traded did not see nearly as steep an increase (46% MoM). The most traded name was Hemostemix Inc (HEM) with average daily volume of 22M shares, an average trade size of 70K shares and a volume weighted average price of \$0.02. (Note: HEM underwent a reverse 20:1 stock split on December 30).
- Market on Close (MOC) market share for the S&P/TSX Composite rose to 5.7% in December 2020, a MoM increase of 33% and a 2020 high. MOC market share for the S&P/TSX 60 also increased 10% MoM to 15.4%, led by BNS and CM both of which had MOC market share over 40%.
- Block market share in December 2020 returned to pre-pandemic highs, gaining 14% MoM to 11.6% which is in-line with December 2019 levels.
- Average spreads in December 2020 declined across all time bins to the lowest levels since February. Volatility also decreased across all time bins, with the biggest decline in the first 30 minutes of trading, down 21% MoM across the S&P/TSX 60 and 15% across the S&P/TSX Composite.

CANADA MARKET STRUCTURE NEWS

CNSX Markets Inc Submits Proposal to add At-the-Touch Dark Execution

CNSX Markets Inc (CSE) submitted a proposal to introduce at-the-touch (ATT) non-display execution. As with dark orders on other marketplaces and in compliance with IIROC UMIR Rule 6.6, in order for a resting dark order to trade ATT, the active order on entry must be greater than 50 standard trading units and have a value more than \$30,000 or just a value greater than \$100,000. The added functionality will enable Seek Dark Liquidity Only order types to trade against dark orders up to and including the Protected NBBO and will allow these orders to be designated as "Trade with price improvement only" or "Trade with price improvement or dark at-the-touch." Under the proposal, dark orders will also support post-only and min quantity instructions. The comment period runs until January 25. The CSE received approval for an at-the-touch pegged order type in 2018 but never implemented the feature.

https://www.osc.gov.on.ca/en/Marketplaces_cnsx_20201210_significant-change-subject-public-comment.htm



Canadian Securities Administrators Launch Consultation on Activist Short Selling

The Canadian Securities Administrators (CSA) published a consultation paper highlighting activist short selling activity in Canada. Although there has been increased activity since 2015, annually there have been no more than five Canadian targets for every 1,000 Canadian listed issuers. The CSA is seeking public comment on whether the state of activist short selling is problematic in Canada and whether the regulatory framework is sufficient to deter problematic activist short selling. The comment period runs until 3 March, 2021.

https://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20201203_25-403_activist-short-selling.htm

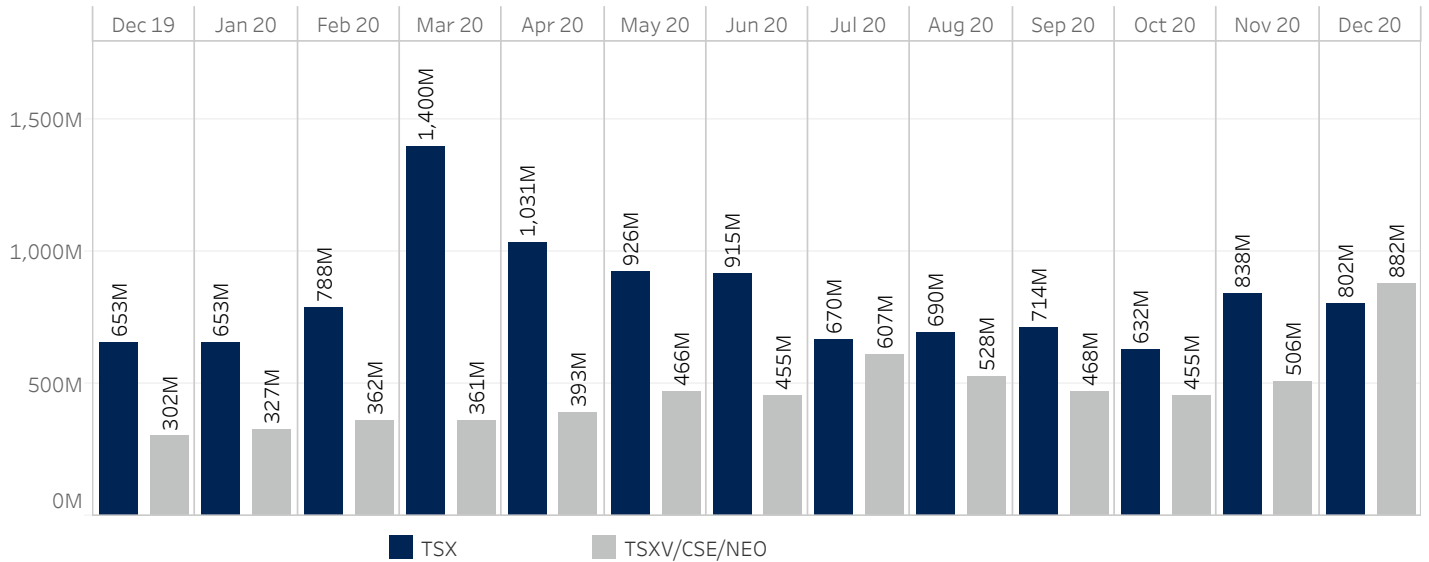
TSX Inc. Proposes Amendments to Alternative Closing Price during Exchange Outage

TSX Inc. submitted a proposal to modify the closing price calculation during a significant exchange service interruption. The Alternative Closing Price will use a five-minute VWAP of consolidated last-sale eligible prices; or, if there is no VWAP available, the Alternative Closing Price will be calculated using the last known market-wide last sale on that day; or if there is no eligible trade for that particular security, the Alternative Closing Price will be the closing price for such security on the last day in which it traded on the applicable exchange. The comment period runs until 29 January, 2021 and the TSX plans to implement the changes in 2Q, 2021 pending regulatory approval.

https://www.osc.gov.on.ca/en/Marketplaces_tsx_20201210_rfc-notice-proposed-amendments.htm

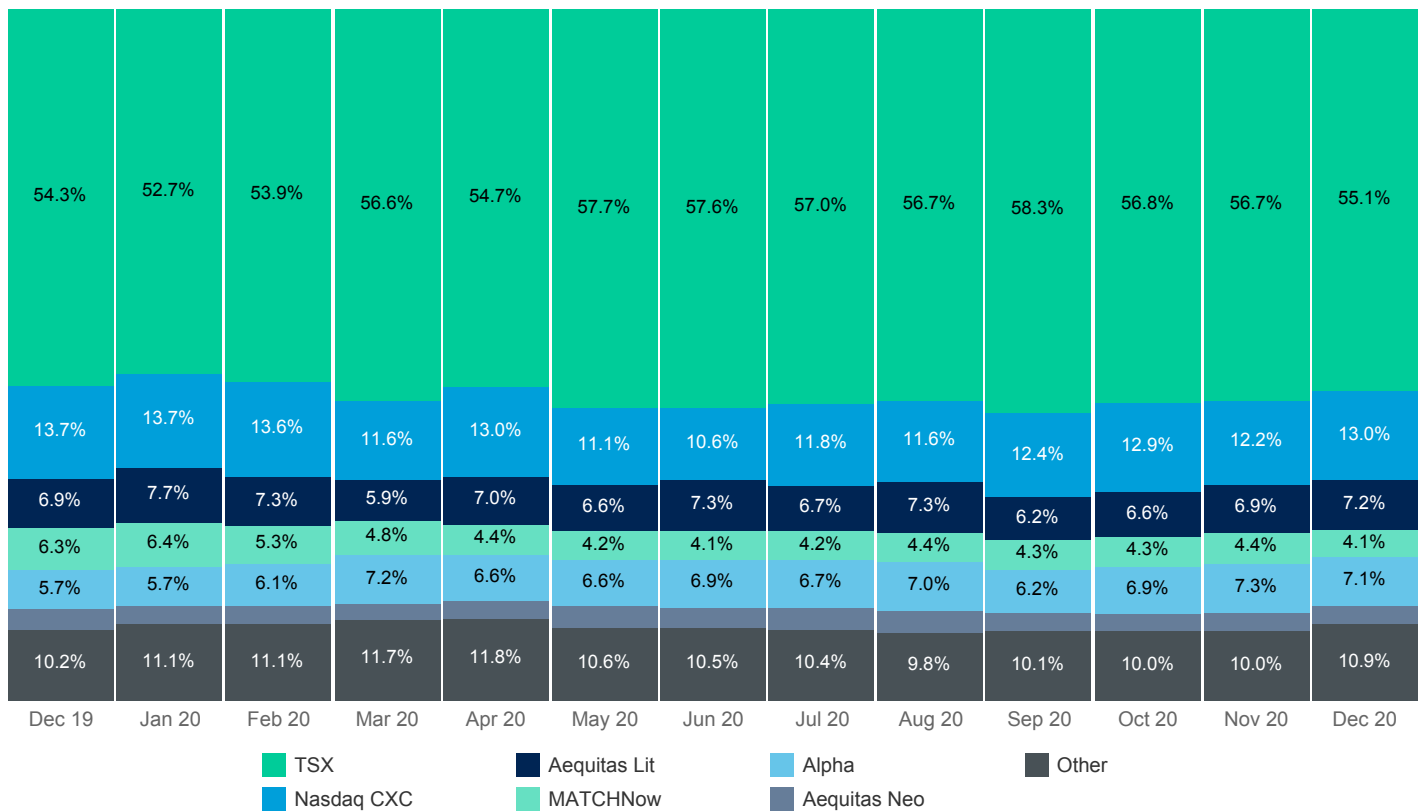


Average Daily Market Volume By Listing Exchange (Shares)



Source data: Virtu Financial

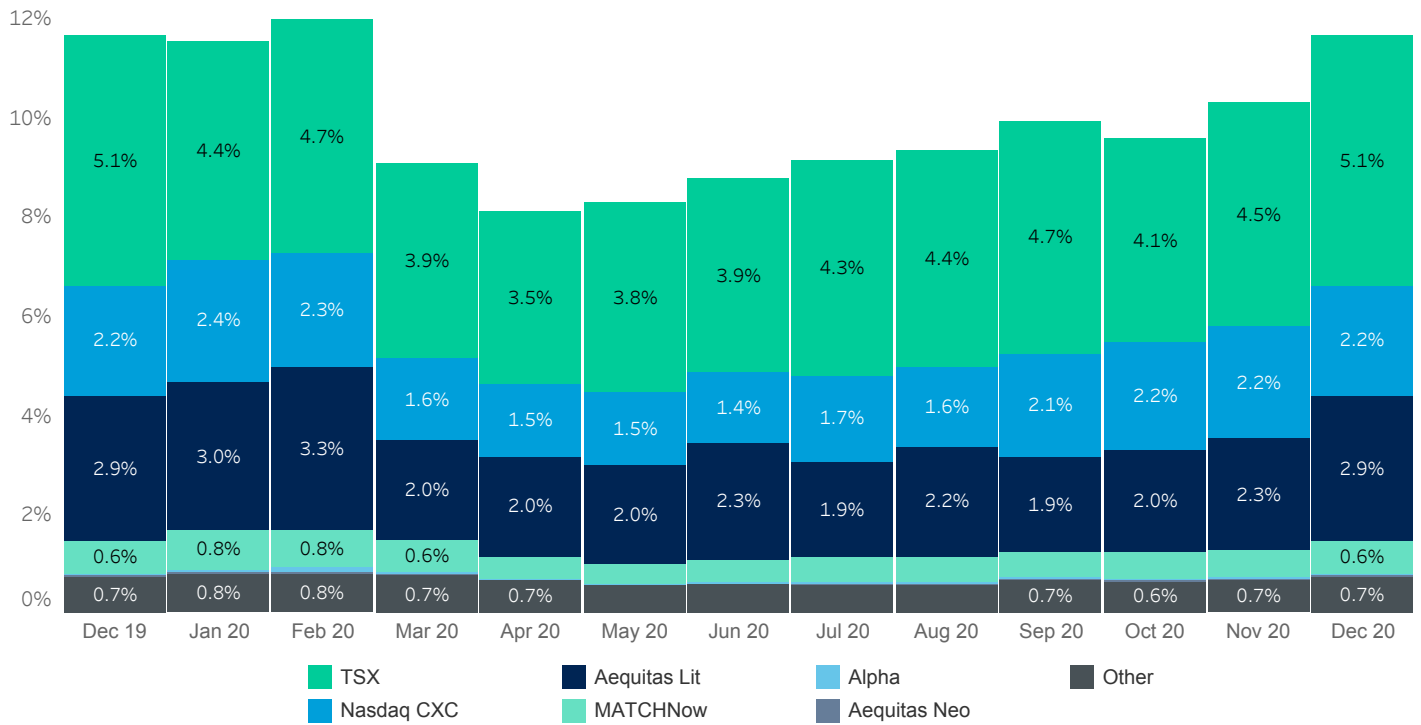
Venue Market Share



TSX listed securities only; Source data: Virtu Financial

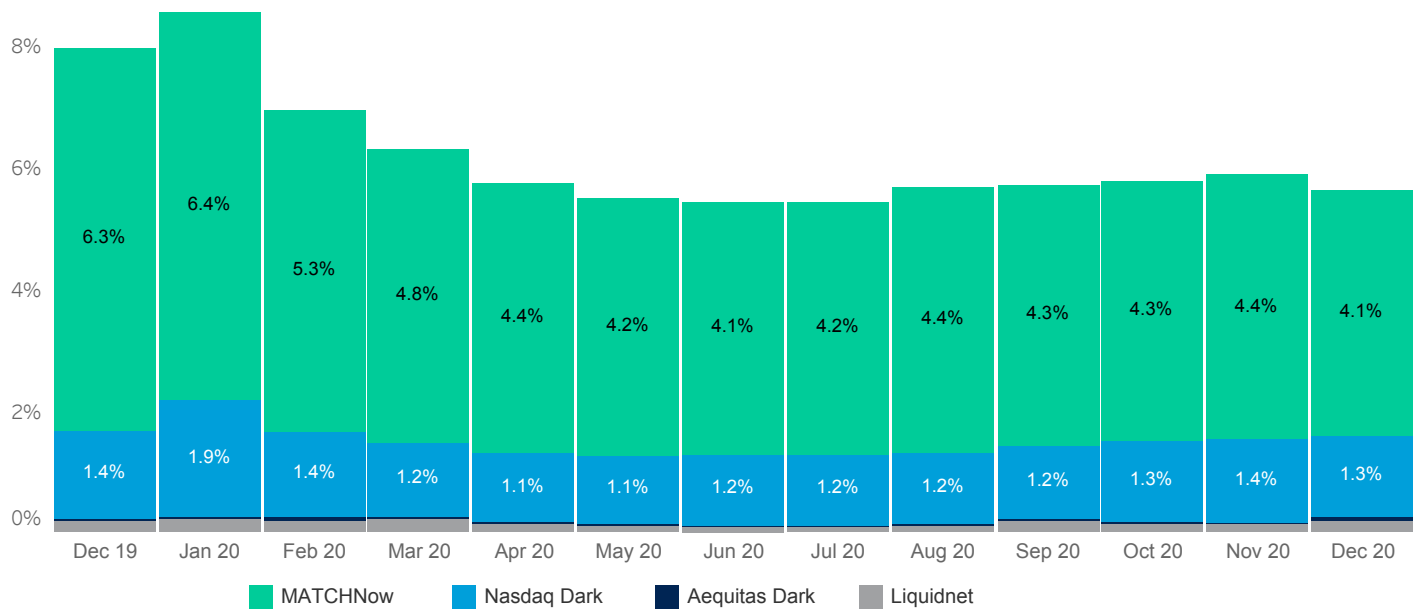


Block Volume Market Share (% of total volume)



Blocks defined as >10K shares and > \$100,000; TSX listed securities only; Source data: Virtu Financial

Dark Venue Market Share (% of total volume)



TSX listed securities only; Source data: Virtu Financial



Quotesize in Shares

		4Q 19	1Q 20			2Q 20			3Q 20			4Q 20		
		Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20
First 30 Min	S&P/TSX 60	656	628	625	507	492	498	524	612	628	654	678	634	744
	S&P/TSX Composite	703	697	704	601	557	523	562	647	674	707	747	715	783
Mid Day	S&P/TSX 60	1,037	1,038	997	631	641	755	742	817	847	846	828	807	942
	S&P/TSX Composite	1,071	1,088	1,053	738	706	788	808	867	901	928	892	863	972
Last 30 Min	S&P/TSX 60	1,568	1,488	1,445	694	786	954	964	1,045	1,056	1,021	1,073	1,084	1,188
	S&P/TSX Composite	1,473	1,452	1,446	865	941	1,049	1,100	1,128	1,159	1,164	1,208	1,163	1,256

Spread Bps

First 30 Min	S&P/TSX 60	4.4	4.4	4.8	15.3	11.5	7.7	7.3	6.7	6.1	6.4	5.9	6.1	5.4
	S&P/TSX Composite	8.8	8.9	9.8	29.1	23.7	17.8	16.2	13.6	12.3	12.3	11.8	12.3	11.3
Mid Day	S&P/TSX 60	2.8	2.8	2.9	7.9	5.6	4.6	4.4	4.3	4.1	4.3	4.2	4.0	3.7
	S&P/TSX Composite	5.9	5.9	6.0	15.2	11.8	9.7	9.0	7.8	7.2	7.3	7.1	7.2	7.0
Last 30 Min	S&P/TSX 60	2.3	2.3	2.3	6.0	4.4	3.6	3.4	3.3	3.1	3.3	3.1	3.0	3.0
	S&P/TSX Composite	5.2	5.1	5.2	12.3	9.4	8.1	7.5	6.8	6.3	6.4	6.1	6.1	6.0

One Minute Volatility Bps

First 30 Min	S&P/TSX 60	10.7	10.2	12.6	52.5	29.7	22.9	21.1	17.0	15.4	17.2	14.4	17.2	13.6
	S&P/TSX Composite	12.2	11.8	14.7	56.8	36.0	27.9	25.6	20.7	19.2	20.7	17.6	20.4	17.5
Mid Day	S&P/TSX 60	3.2	3.1	3.8	22.8	11.7	8.0	7.3	5.7	5.1	6.1	5.4	5.6	4.6
	S&P/TSX Composite	2.9	3.0	3.7	22.5	12.6	8.3	7.8	6.3	5.6	6.5	5.6	6.2	5.3
Last 30 Min	S&P/TSX 60	2.9	3.1	3.5	26.2	12.6	8.6	7.3	5.5	4.7	6.2	5.2	5.4	4.6
	S&P/TSX Composite	2.6	2.6	3.0	24.7	12.9	8.7	7.4	5.9	5.0	6.0	5.2	5.8	4.9

Percent MDV by Time of Day

Open	S&P/TSX 60	0.6%	0.6%	0.7%	0.6%	0.7%	0.6%	0.6%	0.5%	0.6%	0.6%	0.5%	0.6%	0.5%
	S&P/TSX Composite	0.5%	0.6%	0.6%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.5%
First 30 Min	S&P/TSX 60	11.5%	11.1%	11.4%	10.8%	11.2%	12.2%	11.6%	11.8%	11.3%	11.9%	10.5%	12.4%	11.8%
	S&P/TSX Composite	11.1%	10.9%	11.4%	10.8%	11.6%	12.8%	11.6%	12.2%	12.7%	12.4%	11.8%	13.4%	12.3%
Last 30 Min	S&P/TSX 60	28.8%	27.5%	28.0%	27.5%	31.0%	30.2%	31.8%	32.4%	29.4%	32.6%	37.2%	31.5%	33.7%
	S&P/TSX Composite	22.3%	22.5%	21.9%	22.4%	24.4%	23.2%	23.2%	24.8%	23.2%	24.3%	24.5%	23.5%	24.6%
Close	S&P/TSX 60	11.1%	9.8%	10.2%	8.5%	8.8%	8.7%	11.5%	11.4%	9.9%	13.7%	21.0%	13.9%	15.4%
	S&P/TSX Composite	5.0%	4.7%	4.8%	3.7%	3.6%	3.7%	5.1%	5.5%	5.3%	5.2%	4.9%	4.3%	5.7%

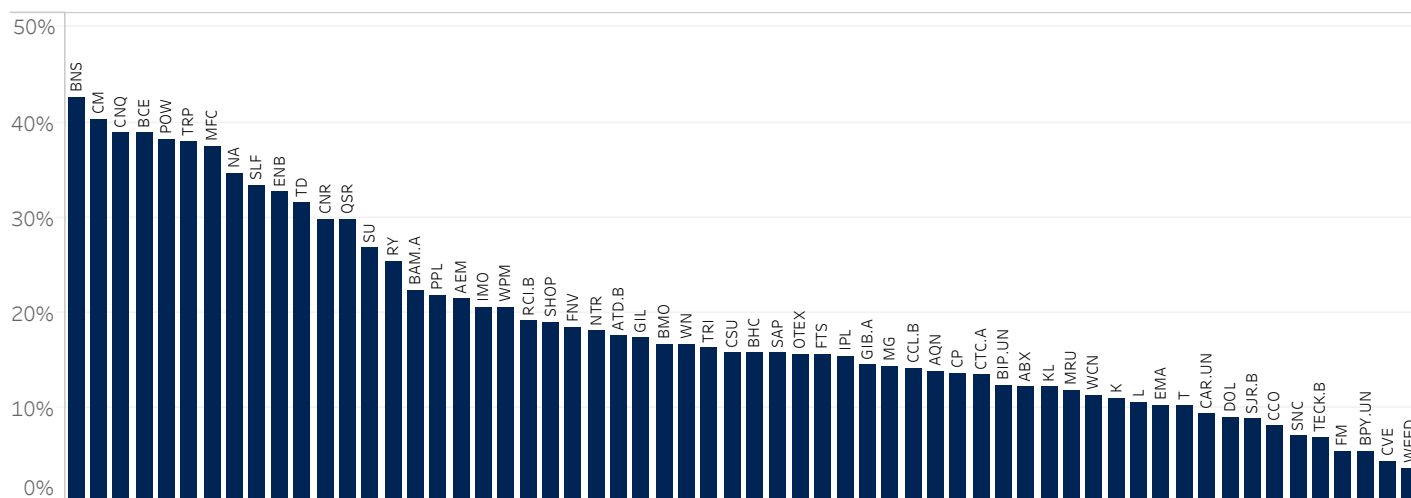
Median used for all metrics

One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP

Source data: Virtu Financial



December 2020 Median MOC % of Daily Volume - S&P/TSX 60



Source data: Virtu Financial



ABOUT VIRTU

Virtu is a leading financial services firm that leverages cutting-edge technology to provide execution services and data, analytics and connectivity products to its clients and deliver liquidity to the global markets. Leveraging its global market making expertise and infrastructure, Virtu provides a robust product suite including offerings in execution, liquidity sourcing, analytics and broker-neutral, multi-dealer platforms in workflow technology. Virtu's product offerings allow clients to trade on hundreds of venues across 50+ countries and in multiple asset classes, including global equities, ETFs, foreign exchange, futures, fixed income and myriad other commodities. In addition, Virtu's integrated, multi-asset analytics platform provides a range of pre and post-trade services, data products and compliance tools that clients rely upon to invest, trade and manage risk across global markets.

To learn more, contact your sales representative or call our desk at:

APAC+852.2846.3553 | **CAN**+1.416.874.0800 | **EMEA**+44.20.7670.4066 | **US**+1.646.682.6199
info@virtu.com | www.virtu.com

© 2021 Virtu Financial, Inc. All rights reserved. Not to be reproduced or retransmitted without permission. These materials are for informational purposes and are not intended to be used to make trading or investment decisions, they are not intended as an offer to sell or the solicitation of an offer to buy any security or financial product, and are not intended as advice (investment, tax or legal). The information contained herein includes Virtu proprietary information and/or has been taken from sources we believe to be reliable, but we do not represent or warrant that such information is accurate or complete and it should not be relied upon as such.

Analytics products and services referenced herein may not be subject to oversight by regulatory authorities in one or more jurisdictions, including in Europe, where such products and services are offered by Virtu ITG Ventures Limited, registered in Ireland No. 295549 ("VIVL"). VIVL does not engage in regulated activity.

Securities products and services are offered by the following subsidiaries of Virtu Financial, Inc. In the U.S., Virtu Americas LLC, member FINRA and SIPC; in Canada, Virtu ITG Canada Corp., member Canadian Investor Protection Fund and Investment Industry Regulatory Organization of Canada; in Europe, Virtu ITG Europe Limited, registered in Ireland No. 283940 ("VIEL") (VIEL is authorized and regulated by the Central Bank of Ireland), and Virtu Financial Ireland Limited, registered in Ireland No. 471719 ("VFIL") (VFIL is authorized and regulated by the Central Bank of Ireland). The registered office of VIEL and VFIL is Whitaker Court, Whitaker Square, Sir John Rogerson's Quay, Dublin 2, Ireland; in Asia, Virtu ITG Hong Kong Limited (SFC License No. AHD810), Virtu ITG Singapore Pte Limited (CMS License No. 100138-1), and Virtu ITG Australia Limited (AFS License No. 219582).