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Best Execution and Order Handling Disclosure

This document provides summary information regarding the order handling and routing practices employed by Virtu Canada Corp.¹ ("Virtu" or "the Firm") and is accessible on Virtu's website².

Virtu, or its affiliates, may act as a market maker, or otherwise act as principal, trading securities on the Canadian marketplaces to which Virtu routes client orders. Virtu principal orders may trade against client orders on these Canadian venues. In certain instances, Virtu may intentionally act as principal to facilitate the execution of a client order, provided that doing so is in line with the order handling practices described within this document. Trades where all or part of the originating order executed against Virtu principal liquidity will be disclosed to the client on a post-trade basis.

Scope of Disclosure

The Firm is a member of the Canadian Investment Regulatory Organization ("CIRO") and is required under Sections 3120-3122 of the Corporation Investment Dealer and Partially Consolidated Rules ("the Rules") to establish, maintain and ensure compliance with written policies and procedures that are reasonably designed to achieve best execution for client orders. This disclosure applies to each client of Virtu, all of whom are institutional clients (as defined in Section 1201 of the Rules) and/or registered broker-dealers that have the ability to trade listed and Over-the-Counter ("OTC") equity securities with Virtu's High Touch Trading Desk and/or Virtu's order routers and suite of algorithms.

Factors Considered for the Purpose of Achieving Best Execution

Virtu considers various factors in its attempt to achieve best execution for client orders, including, but not limited to:

- Prevailing market conditions³,
- Fill prices including opportunities for price improvement,
- Speed of execution,
- · Active, passive, and overall fill rates for protected and unprotected marketplaces,
- Likelihood of execution based on order size,
- Marketplace features⁴, and
- Venue latency and opportunity cost.

Order Handling and Routing Methodology

For Canadian-listed equities, Virtu accepts orders for execution between the hours of 7:00am and 5:00pm Eastern Time, Monday through Friday, not including Canadian statutory holidays. Staff may be further available for assistance before and after these hours. Orders submitted prior to 7:00am will be queued for execution at the open, unless otherwise agreed to by Virtu and the client.

¹ Virtu Canada Corp. is an Investment Dealer registered with the securities regulatory authorities in every province and territory in Canada and is a Dealer Member of the Canadian Investment Regulatory Organization.

² Under Virtu Canada Regulatory Disclosures, www.virtu.com/regulatory-disclosures/

³ Under Section 3121 of the Rules, "prevailing market conditions" include the direction of the market for the security, the depth of the posted market, the last sale price and the prices and volumes of previous trades, the size of the spread, and the liquidity of the security.

⁴ Consideration of marketplace features includes, at a minimum, consideration of the following: opening and closing times, opening mechanisms, the

order types accepted, whether the marketplace is protected or unprotected, and the treatment of marketplace trading fees and/or rebates.

Orders that are cancelled by a marketplace during regular trading hours, but are immediately tradeable, are routed by the Firm's algorithms or order routers to the venue(s) with the next best available price. Outside of core trading hours, the orders are handled as follows:



- <u>Pre-Open Session</u> Orders are queued for the opening auction, unless specifically directed by the client to a destination that will trade the orders in the pre-open as markets open and become available.
- <u>Post-Market / Extended Trading Session</u> Orders received after market close to trade in the post-market trading session are routed to marketplaces that offer extending trading.

All orders will be routed to either the Principal Marketplace⁵ or alternative marketplaces as follows, unless specific instructions are received from the customer to handle otherwise:

- Orders received prior to 9:30am and intended to trade at the opening price of the security are queued for the auction at the opening of the Principal Marketplace that day.
- Orders received after 4:00pm are queued and will be routed to the marketplace(s) at the opening of the Principal Marketplace on the following business day.
- Orders received between 9:30am and 4:00pm will be routed to the marketplace(s) by Virtu's algorithms or routers using the routing and order handling logic described within this document and adjusting trading based on current market conditions.
- Changes to an outstanding order, or portion of an outstanding order, will be handled in the same way as a new order received and will be treated according to the routing conditions listed above.

If a client specifically instructs Virtu to execute an order in a manner other than as described in this document Virtu will abide by client instruction; however, execution quality for the client may be impacted by adhering to the client's specifications.

If a marketplace is unavailable for technical reasons, Virtu will remove the marketplace from its routing until the technical issue(s) is resolved.

Virtu may reject orders it does not wish to accept and nothing in this document should be read as indicating otherwise.

Handling of Market Orders

Virtu accepts market orders from its clients but will apply a collar price on arrival. The collar price is calculated based on price bands or reference prices determined by Virtu and is intended to prevent sizeable market orders from disrupting the market. Market orders will be executed up to the collar price and cancelled back. Market orders with instructions to trade during pre-open and extended hours trading are not accepted during the pre-open and extended trading sessions; limit orders can be used during this time. Market orders are also not accepted for securities halted at the exchange.

Handling of Stop-Loss Orders

The Firm does not support the "stop-loss" order type⁶ offered by certain marketplaces but does provide trading functionality that is designed to replicate stop-loss behaviour. Limit orders received with a stoploss instruction will execute at the defined trigger price and up or down to the defined client limit. Consistent with the Firm's approach to other types of market orders, a collar price is applied to any market order with a stop-loss instruction. The order will execute at the defined trigger price and up or down to the collar price, and then be cancelled back. Application of a collar price on market stop-loss orders is intended to prevent such orders from disrupting the market.

Canadian Equity Marketplaces

Virtu considers and routes orders to Canadian equity marketplaces that are protected or unprotected under the Order Protection Rule ("OPR"). The OPR status of each marketplace is reviewed and

⁵ The "Principal Marketplace" refers to the primary exchange on which a Canadian security is listed.

⁶ As per IIROC Guidance Note 13-0191, a stop loss order is "an order which is entered to buy or sell a particular security with a pre-determined 'trigger' price and which becomes executable once the trigger price has been reached."

changed, if applicable, by the Canadian Securities Administrators ("CSA"). CIRO will publish an updated List of Protected and Unprotected Marketplaces when there are changes based on the determinations of the CSA and is effective as of the date of publication, unless otherwise noted.



The sequence in which marketplaces are ordered for routing is based on Virtu's evaluation of the available Canadian marketplaces, which takes into consideration various factors including, but not

limited to:

- Likelihood of available liquidity based on historical order and trade data;
- Each marketplace's status under OPR (protected or unprotected);
- Speed of execution, including whether a marketplace employs a speed bump;
- Certainty of execution;
- Reliability of quotes; and
- Overall cost of the transaction.

For new marketplaces and/or liquidity sources, Virtu will connect to and consider a new venue in its routing on the launch date, with the following caveats:

- New displayed venues are generally lowest in the sequence to effectively confirm efficacy.
- New unprotected venues that do not display orders are introduced selectively to the Virtu High-Touch Trading Desk prior to being incorporated in client routing.
- Virtu will not post on a new venue until it has demonstrated technical stability.

A summary of the marketplaces to which Virtu routes and the OPR status of each of those marketplaces is available at the end of this disclosure.

Market Data

Virtu's trading products, including its order routers and algorithms, consume real-time market data from all displayed Canadian venues.

Virtu may also provide its clients with requested market data through its proprietary execution management system, Triton. Clients should be aware of the potential risks of trading with incomplete trading data, including potential trade throughs of the visible quote.

Marketplace Fees and Rebates

Virtu may pay marketplace fees or receive marketplace rebates when routing certain orders to certain marketplaces for execution. These fees and rebates are incurred by Virtu when acting as the executing broker, and in some cases, are passed along to clients. Virtu may route to a marketplace based on fees paid or payments received. Canadian investment dealers utilizing Virtu's routing technology and executing under their own trading number will pay fees or receive rebates. Marketplace fee schedules are disclosed on the websites of each marketplace.

Affiliated Marketplaces and Arrangements with Marketplaces

Virtu previously held a minority ownership interest in Aequitas Innovations Inc. ("Aequitas"), a private company which owns and operates Aequitas NEO Exchange and its trading books. In June 2022, Virtu sold our minority interest in Aequitas to Cboe Global Markets, Inc. (the "Aequitas Sale"). Pursuant to the terms of the Aequitas Sale, Virtu may receive additional contingent consideration based on the performance of Aequitas through December 31, 2023.

Foreign Intermediaries

For orders in inter-listed securities⁷ where it appears there is a better price in the U.S. market (after applying an FX rate), Virtu's Best Market Server ("BMS") is designed to route the order to Virtu Americas

⁷ "Inter-listed securities" refers to securities that are listed on both an exchange in Canada and a foreign jurisdiction; predominantly in the United States. Virtu only conducts trades of Canadain listed or quoted securities outside of Canada if such trades are executed on a Foreign Organized Regulated Market, as required under UMIR 6.4 subsection (2)(d). This ensures that trades conducted outside of Canada are conducted on a market that provides substantially the same standards as found in Canada for both regulatory monitoring and public data dissemination.

LLC⁸ for execution. If there is a better quote in the Canadian market, BMS is designed to target the Canadian quote. To minimize the risk of FX rate fluctuations, BMS applies the FX rate at the time of execution to any trades executed in the U.S.; as a result, any FX rate fluctuation risk is borne by Virtu. Virtu acts as principal in any currency conversion transactions and earns revenue on the spread between the bid and ask prices and the cost of the currency.



For orders in securities that are not listed in Canada or where the better quote is outside the Canadian market, Virtu will route to certain affiliated and non-affiliated intermediaries to facilitate order execution.

Virtu Affiliates

Virtu provides its clients with access to the global equity markets via a network of affiliated firms (each a "Virtu Affiliate"), all of which are registered brokerage firms in their local jurisdiction, including: Virtu Americas LLC (United States), Virtu Europe Trading Limited (Ireland, covering Europe), and Virtu Hong Kong Limited (Hong Kong) and Virtu ITG Australia Limited (Australia) that collectively cover Asia Pacific. In certain markets Virtu may use a local broker to facilitate execution; additional details are available upon request.

When handling orders for securities that are not listed in Canada, the Firm may route orders to a Virtu Affiliate that acts as a market maker and provides liquidity on a principal basis. That Virtu Affiliate may earn revenue by acting as principal in facilitating the execution of a Firm client order. Typically, orders would be routed to such a Virtu Affiliate at the instruction of the client or to accommodate a more complex trading strategy involving American Depository Receipts, exchange-traded funds, convertible debentures, warrants, rights or pairs trades.

Unaffiliated Market Makers

When routing client orders for securities that are not listed in Canada, Virtu's non-Canadian affiliates may send non-Canadian orders directly to market makers. These market makers are registered as broker-dealers in the jurisdictions in which they operate. Typically, orders may be routed to a market maker upon client request or to accommodate a more complex trading strategy.

Handling of Inter-listed Securities

Virtu considers the following additional factors when routing an order in an inter-listed security to a foreign intermediary for execution:

- Whether the foreign market has historically demonstrated a reasonable likelihood of liquidity for the listed security;
- The extent of trading in the security on the foreign market relative to the volume of trading on Canadian marketplaces;
- The extent of exposure to settlement risk in a foreign jurisdiction; and
- The extent of exposure to fluctuations in foreign currency exchange.

When an order is routed to a foreign intermediary, the order will be subject to the order handling and routing practices of that intermediary, which may apply different criteria when assessing execution quality due to local rules and regulations. For each intermediary, Virtu has obtained a copy of its order handling and routing practices for review and has determined that the order handling and routing practices as described within these documents are reasonably designed to achieve best execution. Whether an order was routed to an intermediary, along with the identity of the intermediary, can be provided on a trade-by-trade basis upon request.

Use of Client Order and Trade Data

The Firm utilizes a shared services model that allows personnel on shared services teams to have access to client order and execution information. Shared services teams may support both client and principal

⁸ Virtu Americas LLC is an affiliate of Virtu Canada Corp. and registered broker-dealer, member of the Financial Industry Regulatory Authority.

trading activities. The following employee roles at Virtu would generally have access to order and execution information relating to trades conducted through the Firm's brokerage offerings: compliance, legal, operations, technical operations ("core ops") and technology and product management. Client dedicated sales and trading personnel would also have access to such order and execution information. Additional information restrictions may be implemented when required by applicable securities laws. Employee access to client order and trade data is managed through Virtu's access review process and reviewed on a scheduled basis.

Aggregate information is shared across teams including revenues, products used, aggregated volumes, and other information. Certain business units may use information about current and historical client orders, cancellations, and fills (both full and partial), real time market data, and commercially available data, information that clients provide about their customers (if applicable), information about clients and, if applicable, their customers' trading activities and patterns, and any other information clients transmit or otherwise provide to Virtu in connection with any trading or business purpose of the Firm or as required by its regulatory obligations under applicable securities laws.

Canadian Marketplace Summary

Each marketplace OPR status as outlined below is effective as of April 1, 2023⁹. Any changes to the OPR status of Canadian marketplaces are announced and determined by the CSA.

Protected Marketplaces

Virtu connects to and considers quotes from all marketplaces considered protected under OPR:

- CSE
- Nasdaq CXC
- Nasdaq CX2
- NEO-L
- Omega
- TSX
- TSX Venture

All the above marketplaces are considered protected as they meet the market share threshold set out under National Instrument 23-101 *Trading Rules* and its Companion Policy.

Unprotected Marketplaces

Virtu connects to, and where applicable, considers quotes from, the following unprotected marketplaces:

- Alpha
- Alpha-X
- <u>Alpha-Dark</u>
- Lynx
- CSE2
- NEO-N
- ICX
- Liquidnet
- MATCHNow
- Nasdaq CXD
- NEO-D

Lynx and CSE2 are unprotected as it does not meet the market share threshold. ICX, Liquidnet, MATCHNow, Nasdaq CXD and NEO-D are unprotected as these marketplaces do not display orders. NEO-N,<u>and</u>-Alpha, <u>Alpha-X and Alpha-Dark</u> are unprotected as these marketplaces do not provide "automated trading functionality."



⁹ https://www.iiroc.ca/news-and-publications/notices-and-guidance/order-protection-rule-market-share-threshold-effective-april-1-2023