Liquidnet Canada Trading Rules[1]

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[1] For more detail, please refer to the Liquidnet Trading Rules document, which provides information on Liquidnet's global trading services. The Liquidnet Canada Trading Rules document is intended as a summary of relevant provisions of Liquidnet's global Trading Rules document relating to trading of Canadian equities on the Liquidnet Canada ATS.

Part I.   Liquidnet trading services

Section 1.01   Liquidnet trading services

This document describes the various trading services offered by Liquidnet Canada Inc. ("Liquidnet" or "Liquidnet Canada"). The trading services offered by Liquidnet include all the trading and trading-related services described in this Trading Rules document, including the following services:

- *Brokerage services.* The brokerage services offered by Liquidnet involve the receipt and handling of orders and indications from Members and customers (as defined below); these services include providing access to the execution systems operated by Liquidnet and to external execution venues, as described throughout this document.

- *Negotiated execution services.* Liquidnet's negotiated execution systems provide functionality for negotiated executions, as described in Part VII below.

- *Liquidnet H2O execution services.* Liquidnet's H2O execution systems provide functionality for H2O executions, as described in Part VIII below.

- *Execution consulting services.* Liquidnet's Trade Coverage group provides execution consulting services to Members and customers with a focus on Liquidnet's algorithmic offering, as described in Section 10.02 below.

- *Transaction cost analysis service.* Liquidnet's Trade Coverage group provide a transaction cost analysis (TCA) service, as described in Section 10.02 below.

- *Commission management services.* Liquidnet offers commission management services, as described in Section 10.04 below.

- *Analytics.* Liquidnet provides pre-trade and post-trade analytics, as described in Section 10.05 below.

- *Fixed income trading services*. Liquidnet provides fixed income trading services, as described in Section 10.06 below.

- *Anti-gaming services.* Liquidnet provides anti-gaming services, as described in Section 12.11 below.

Liquidnet's negotiation and H2O execution systems are sometimes referred to as the "Liquidnet execution venues."

Section 1.02   Liquidnet technology

The Liquidnet technology comprises all trading and trading-related technology offered or provided by Liquidnet, including the following:

- ***The Liquidnet network.*** The Liquidnet network consists of all technology operated by Liquidnet to facilitate trading and trading-related services on behalf of its Members, customers and LPs (as defined below).

- ***Liquidnet client software.*** The Liquidnet client software consists of all software provided to Members and customers, including the Liquidnet trader application that is installed on trader desktops at Member firms (as described below).

- ***Liquidnet integration adapter.*** The Liquidnet integration adapter integrates Liquidnet's systems with a Member's or customer's order management system or execution management system ("OMS").

The Liquidnet technology is also referred to as the "system" or "Liquidnet".

Section 1.03   Liquidnet entities and countries or regions

Liquidnet dealing entities and countries or regions

Worldwide, there are eight Liquidnet entities that conduct a securities business. Each Liquidnet dealing entity provides the Liquidnet trading services in the specified countries or region:

Liquidnet entity	Countries or Region
Liquidnet, Inc.	US and Mexico
Liquidnet Europe Limited	UK, Switzerland, South Africa, Israel and Turkey
Liquidnet EU Limited	EEA
Liquidnet Canada Inc.	Canada
Liquidnet Asia Limited	Asia
Liquidnet Singapore Pte Ltd.	Southeast Asia
Liquidnet Australia Pty Ltd.	Australia and New Zealand
Liquidnet Japan Inc.	Japan

Role of Liquidnet dealing entities in the trading process

A Member or customer located in a specific region is a Member or customer of the Liquidnet entity in that region (for example, a Member located in Canada is a Member of Liquidnet Canada). A Member located in Canada also is considered a direct participant of the Liquidnet Canada ATS when transmitting a negotiated order, a Liquidnet Only algo order, an LN auto-ex order or an automated negotiation order (see Parts III, IV, V and VIII).

Each Liquidnet entity, and the alternative trading system (ATS) or multilateral trading facility (MTF) that it operates (where applicable), is responsible for execution of trades for the market(s) within its region (for example, Liquidnet Canada is responsible for execution of trades in Canadian equities).

If a Member, customer or LP located in a specific region transmits an order for an equity in another region, Liquidnet's systems record that order as being routed by the Liquidnet entity in the Member's, customer's or LP's region to the Liquidnet entity responsible for execution. The entity located in the Member's, customer's or LP's region is considered the routing broker; the entity responsible for execution is considered the executing broker. The foregoing is subject to the following exceptions pertinent to the Liquidnet Canada ATS:

- Negotiated, Liquidnet Only algo, LN auto-ex and automated negotiation orders by Canadian Members in non-Canadian equities are routed by the Liquidnet Canada ATS to the applicable executing broker.

- Negotiated, Liquidnet Only algo, LN auto-ex and automated negotiation orders by non-Canadian Members in Canadian equities are routed by the applicable routing broker to the Liquidnet Canada ATS.

Liquidnet Canada Inc. (Liquidnet Canada) is authorized as an investment dealer (or equivalent) by the Ontario Securities Commission (OSC), the Autorité des Marchés Financiers of Quebec and the British Columbia, Alberta, Saskatchewan, Manitoba and New Brunswick Securities Commissions. Where required, Liquidnet Canada operates the Liquidnet Canada ATS, which is also registered in these provinces. Liquidnet Canada is a member of and regulated by the Investment Industry Regulatory Organization of Canada (IIROC). Liquidnet Canada is a member of the Toronto Stock Exchange and the TSX Venture Exchange.

The Liquidnet Canada ATS is responsible for all negotiation and H2O functionality for Canadian equities, and all functionality for Canadian fixed income securities. The Liquidnet Canada ATS also is responsible for (i) receipt and routing of negotiation orders, Liquidnet Only algo, LN auto-ex and automated negotiation orders by Canadian Members in non-Canadian equities, and (ii) receipt and routing of orders by Canadian Members in non-Canadian fixed income securities.

In addition to the exchange memberships identified above, Liquidnet Canada may be a subscriber to various registered and non-registered trading venues. As noted in Section 1.17 below, a list of these venues is available on Liquidnet Docs, a password-protected website for Members and customers.

International dealer exemption for Canada

The following affiliates of Liquidnet Canada rely on the international dealer exemption when interacting with Canadian participants in connection with the trading of non-Canadian securities:

- Liquidnet, Inc.
- Liquidnet Europe Limited
- Liquidnet Asia Limited
- Liquidnet Singapore Pte Ltd.

Liquidnet Canada has posted an International Dealer Exemption Notification on Liquidnet Docs. This notification includes the disclosures to customers required under Section 8.18 of National Instrument 31-103 in Canada.

Liquidnet Holdings and other operating Liquidnet affiliates

Liquidnet Holdings, Inc., based in the US, is the direct or indirect parent company of each of the Liquidnet dealing entities. Pursuant to agreements entered into between Liquidnet Holdings and each of the dealing entities, Liquidnet Holdings provides technology-related services to the dealing entities, including services related to the development, testing and maintenance of Liquidnet's trading systems. The agreements include licensing of technology developed by Liquidnet Holdings.

Liquidnet Holdings is the parent company of OTAS Technologies Holding Limited and its subsidiary, Liquidnet Technologies Europe Limited (LTEL). LTEL is a trade analytics provider based in the UK. Institutions, which may include Liquidnet participants, may use commission credits to pay for services provided by LTEL. Liquidnet Holdings is also the parent company of Research Exchange Ltd. (Research Exchange) and Prattle, LLC (Prattle). Research Exchange is based in the UK and operates a platform for aggregating institutional research. Prattle is based in the US and develops systems that produce analytics based on Natural Language Processing (NLP) of public communications.

Liquidnet Holdings is also the parent company of Vega-Chi Financial Technologies Ltd., which provides technology-related services to the Liquidnet dealing entities for fixed income trading. Vega-Chi is based in Cyprus.

Liquidnet is now part of TP ICAP Group

TP ICAP Group ("TP ICAP") recently completed its acquisition of Liquidnet Holdings, Inc. and its subsidiaries. Liquidnet will continue to operate independently under the TP ICAP corporate structure; there have been no changes to broker-dealer counterparties, so there is no need for participants to be re-papered or re-onboarded. For additional information concerning this acquisition, Members and customers should contact their Liquidnet trading coverage.

TP ICAP Group entities

Liquidnet may onboard one or more entities under the TP ICAP Group ("TP ICAP Group entities") as system participants enabled to trade any instruments offered for trading through the Liquidnet system. Each such TP ICAP Group entity onboarded will have the same access to liquidity as other similarly situated participants and will be required to comply with any regulatory restrictions that may be applicable to affiliates of ATS/MTF operators in the relevant jurisdiction(s).

Section 1.04   Liquidnet participant categories

Participant categories

The Liquidnet participant categories for Canadian equities are as follows:

- Members
- Trading desk customers
- Algo and Automated routing customers

- Liquidity partners.

Members

A "Member" is an entity that meets the Member admission and retention criteria set forth in Section 1.05 below, as applicable, and interacts with the Liquidnet broker in the Member's region. Members transmit indications from their OMS to Liquidnet and manage those indications through the Liquidnet desktop application, which is installed at one or more trader desktops at the Member firm. Indications can be transmitted through a periodic sweep, FIX transmission or other method agreed among Liquidnet, the Member and the OMS vendor, as applicable.

Trading desk and algo customers

A "trading desk customer" or an "algo customer" is an entity that interacts with the Liquidnet broker in the customer's region but does not have access to the Liquidnet desktop application. A trading desk customer interacts with Liquidnet by transmitting orders to the Liquidnet high-touch trading desk. Trading desk customers include customers that transmit high-touch orders to Liquidnet by FIX. An "algo customer" is an entity that transmits a low-touch algo order to Liquidnet by FIX.

Automated routing customers

As an alternative means of accessing Liquidnet, buy-side institutions that meet certain applicable Member admission criteria as set forth in Section 1.05 below can transmit orders (including conditional orders) to Liquidnet via an automated order router. For execution purposes, these orders are treated the same as algo orders that cannot route externally, but coverage by Liquidnet personnel is different (see Part XI). These buy-side institutions can participate directly, through a service provider, or through a routing securities dealer (referred to as an "automated routing broker") as long as the securities dealer identifies the buy-side institution to Liquidnet on an order-by-order basis (through FIX or an equivalent mechanism). These orders only access the Liquidnet negotiation and H2O systems and are referred to as "automated routing orders" or "automated flow".

Customers

Trading desk, algo and automated routing customers as a group are referred to as "customers." Buy-side trading desk and algo customers and buy-side automated routing customers can make elections relating to the sources of liquidity with which they interact and use of their trading information. These elections are not currently available to Liquidnet Capital Markets customers and automated routing brokers.

Traders

A "trader" is an employee of a Member or customer firm who has been authorized by the Member's or customer's system administrator to transact business with Liquidnet.

Participating in multiple participant categories

A firm can be both a Member and a customer. When transmitting orders to the applicable Liquidnet broker through the Liquidnet desktop application, the firm is considered a Member; when transmitting orders through the Liquidnet trading desk, as a low-touch algo by FIX, the firm is considered a customer.

Similarly, a firm that participates as an LP also can participate as a customer, subject to the conditions set forth in these Trading Rules.

Liquidity partners

For Canadian equities, "Liquidity partners" (LPs) are IIROC-registered Canadian brokers, including Liquidnet Canada acting as agent (i) on behalf of any of its non-Canadian dealer affiliates, which, in turn, are acting as agent on behalf of a third-party dealer registered outside of Canada, or (ii) directly on behalf of a third-party dealer registered outside of Canada. In such cases, either Liquidnet Canada's non-Canadian dealer affiliate or the third-party dealer routes the order directly to Liquidnet Canada, which transmits the order to the Liquidnet Canada ATS.

IOC orders and resting orders are available from LPs for Canadian equities. LPs do not have access to the Liquidnet desktop application. LPs do not interact with the Liquidnet negotiation system. LPs cannot make elections pursuant to Liquidnet Transparency Controls.

LPs include firms that access the Liquidnet system via their own or third-party routing infrastructure/algos (known as "external LPs") and firms that rely on Liquidnet's technology/algos to access the Liquidnet system. As such, LPs also can create algo orders that interact with Liquidnet H2O as resting orders and also may interact with external venues in the same manner as customer orders. These algo orders do not interact with the Liquidnet negotiation system.

Section 1.05   Other participant workflows

Single-ticket clearing

Liquidnet can settle Member and customer trades with a broker designated by a Member or customer, where the broker provides a single-ticket clearing service to the Member or customer, as described in Section 12.07.

Outsourced trading desk

A buy-side firm that meets all admission and retention criteria as a trading desk or algo customer in its region can trade with Liquidnet through a broker dealer acting as an outsourced trading desk (OTD), subject to the following conditions:

- The OTD must meet all admission and retention criteria applicable to a trading desk customer in the relevant region
- The OTD must identify the buy-side firm to Liquidnet on an order-by- order basis (through FIX or an equivalent mechanism)

- Liquidnet may settle trades either with the broker dealer or directly with the buy-side firm
- The OTD acts on an agency-only basis and does not engage in any proprietary trading or market making activity
- The OTD may also handle transition management business
- Liquidnet will apply Transparency Controls settings based on the settings of the buy-side firm.

The buy-side firm and the OTD are both considered trading desk customers.

Section 1.06   Admission and retention criteria for Members, trading desk customers, automated routing customers and liquidity partners

General

This section sets forth the admission and retention criteria for participation as a Liquidnet Member, trading desk or algo customer, automated routing customer or liquidity partner. As discussed in Section 1.04 above, Members can have access to the Liquidnet desktop application; trading desk and algo customers, automated routing customers and LPs do not.

Admission and retention criteria for Members

- A Canadian Member must be a buy-side institutional investor (also referred to as an "institutional investor" or "buy-side firm").
- A Member must have total equity assets, or total equity assets under management, of US $100 million or more, or the equivalent in another currency.
- A Member must have an order management system (OMS) with which Liquidnet can interface. An OMS is software that a firm uses to manage its order flow.
- A Member must comply with Liquidnet's Trading Rules.
- A Member must enter into a subscriber agreement and other documentation required by Liquidnet.
- A Member must satisfy credit and legal criteria as Liquidnet or its clearing broker may establish from time to time, including criteria concerning total equity assets or total equity assets under management as Liquidnet may establish in any region from time to time. This also includes Liquidnet's compliance with any customer identification procedure and other anti-money laundering rules and regulations relating to customer due diligence.
- Liquidnet's clearing broker must consent to the institution as a Liquidnet customer.
- Liquidnet can terminate a Member's participation based on an inadequate level of system usage.

Admission and retention criteria for trading desk and algo customers

- A Liquidnet Canada trading desk or algo customer must be an institutional investor. or an outsourced trading desk for Canadian equities that meets the requirements set forth in Section 1.05.
- A trading desk or algo customer must comply with Liquidnet's Trading Rules.
- A trading desk or algo customer must satisfy credit and legal criteria as Liquidnet or its clearing broker may establish from time to time. This includes Liquidnet's compliance with any customer identification procedure and other anti-money laundering rules and

regulations relating to customer due diligence.

- Liquidnet's clearing broker must consent to the entity as a Liquidnet customer.
- Liquidnet can terminate a trading desk or algo customer's participation based on an inadequate level of system usage.

Admission and retention criteria for automated routing customers

- An automated routing customer must be: (A) an institutional investor that transmits orders through an internal order router; (B) an institutional investor that transmit orders through an order router operated by a third-party service provider; or (C) a securities dealer that transmits orders through an order router on behalf of one or more institutional investors. Automated routing customers under (A) and (B) are referred to as buy-side automated routing customers; securities dealers under (C) are referred to as automated routing brokers.
- In addition to the admission and retention criteria set forth in this section:
    - Buy-side automated routing customers also must meet Member admission and retention criteria 2 and 5.
    - Customers of an automated routing broker also must meet Member admission and retention criteria 2.
- For an automated routing customer relationship that involves a service provider or securities dealer (a provider), the provider must satisfy Liquidnet, and Liquidnet must determine, that the provider's order handling processes will not cause frustration to, or adversely impact, other Liquidnet participants. In making this determination, Liquidnet will take into consideration a variety of factors, including the provider's automated routing logic and venue prioritization, use of conditional orders, use of committed orders, data usage and disclosure, risk controls and compliance oversight.
- In the case of a securities dealer transmitting an order on behalf of a buy-side firm, the securities dealer must identify the buy-side firm to Liquidnet on an order-by-order basis (through FIX or an equivalent mechanism).
- An automated routing customer must comply with Liquidnet's Trading Rules.
- An automated routing customer must satisfy credit and legal criteria as Liquidnet or its clearing broker may establish from time to time. This includes Liquidnet's compliance with any customer identification procedure and other anti-money laundering rules and regulations relating to customer due diligence.
- Liquidnet's clearing broker must consent to the entity as a Liquidnet customer.
- Liquidnet can terminate an automated routing customer's participation based on an inadequate level of system usage.

Admission and retention criteria for liquidity partners

- The LP and Liquidnet must enter into and maintain in effect a routing agreement mutually acceptable to the LP and Liquidnet, and the LP must comply with its obligations under the agreement.
- An LP located in Canada must be a Canadian securities dealer that is a member of IIROC.
- The LP must interact with Liquidnet in conformance with Liquidnet's technical and functional specifications and in compliance with any restrictions on use of order information.

- An LP must comply with Liquidnet's Trading Rules.
- Liquidnet can terminate a liquidity partner's participation based on an inadequate level of system usage.

Institutional investor as an affiliate or division of a bank

An institutional investor can include an affiliate or division of a bank where the affiliate or division conducts an investment or wealth management business. For the purposes of the foregoing, this may include a broker-dealer affiliate of a bank.

Section 1.07   Liquidnet Transparency Controls

Liquidnet makes available to Members and buy-side trading desk customers a web-based system known as Liquidnet Transparency Controls. Liquidnet Transparency Controls allows Members and such customers to easily see details about the liquidity sources with which they interact and the products and services they participate in that utilize their trading information. Members and such customers use the tool to make elections relating to those liquidity sources and products and services that are complementary to Liquidnet's core offering.

Members or customers can contact their Sales coverage for information regarding their current configurations.

A participant's election to participate in a service through Liquidnet Transparency Controls means that Liquidnet will make the service available to the participant assuming the participant otherwise qualifies for access to the service based on these Trading Rules. In certain cases, where a participant has elected to participate in a specific service through Liquidnet Transparency Controls, Liquidnet can, upon the participant's request, disable the service for specific traders or instrument types. In certain cases, Liquidnet does not report these configurations through the Liquidnet Transparency Controls website, but upon request Liquidnet can provide a participant with a list of any such configurations requested by the participant and implemented by Liquidnet.

Liquidnet Transparency Controls includes certain opt-in and opt-out elections, as described in Liquidnet Transparency Controls. A participant's election to participate in a service means that the participant has either opted-in to an opt-in service or not opted-out from an opt-out service, as described in Liquidnet Transparency Controls. Based on discussions with a participant, Liquidnet may link multiple accounts for the same participant. If linking is applied, changes to the Transparency Controls settings and certain other settings for a participant's account are also applied to the settings for any linked account of the same participant. A participant should contact Liquidnet Member Services or its sales or trading coverage for more detail regarding this process, including the applicable settings to which account linking applies.

Section 1.08   Interacting with sources of liquidity

Member and customer elections regarding certain sources of liquidity

Members and eligible customers can choose whether or not to interact with certain sources of liquidity. For elections relating to liquidity sources, eligible customers are buy-side trading desk customers. These choices apply to negotiations and Liquidnet algo, automated routing, LN

auto- ex, automated negotiation and high touch orders.

Specifically, Members and eligible customers can choose whether or not to interact with:

- IOC orders and actionable resting orders from LPs (broker blocks)
- Liquidity from Liquidnet Capital Markets (LCM) customers (Canadian and US equities).

By opting-in to interact with order flow from LCM customers, Members and eligible customers will interact with each of the following categories of LCM customers:

- Public companies
- Private equity
- Venture capital
- Individual and corporate control persons of public-issuer stock (directors, officers, employees and corporations with controlling interests).

Interaction with LCM customers for Canadian equities is limited to interaction with private equity and venture capital firms. Interaction with public companies and individual and corporate control persons is not available for Canadian equities.

Interaction with a private equity or venture capital firm includes interaction with the firm's limited partners in the situation where the private equity or venture capital firm distributes an equity position to its limited partners.

In determining how to classify a Member or customer that engages in more than one type of business activity, Liquidnet seeks to ascertain the primary business activity of the Member or customer firm's business unit that interacts with Liquidnet.

Sources of liquidity for which an election is not available

All Members and customers interact with the following sources of liquidity and cannot choose whether or not to interact with these sources of liquidity:

- Indications and orders from other Members
- Order from buy-side trading desk customers
- Orders from trading desk customers that are transition managers
- Orders from automated routing customers.

Liquidnet can approve blocking matches with affiliates. Blocking for Canadian equities is not otherwise permitted, except for temporary symbol blocks as described in Section 12.11.

Opposite-side indications or orders with the same Member or customer ID cannot match with each other.

Interaction with LP liquidity for algo orders that can route externally

If a participant creates an algo order that can route to external venues (and therefore, interact with liquidity from various sources, including brokers), the algo order will interact with LP

liquidity regardless of whether the participant has opted-in to interacting with LP liquidity. To interact with LP liquidity through Liquidnet-Only orders or broker block opportunities, a participant will have to opt-in to interacting with LP liquidity through Liquidnet Transparency Controls.

The functionality described in this section applies for all equities.

Display of contras

Matches with the following sources of liquidity are displayed to a Member in the same manner as matches with a buy-side contra Member:

- Liquidity from trading desk customers, including Liquidnet Capital Markets customers and transition managers
- Liquidity from automated routing customers.

Matches with the following source of liquidity are presented to a Member as a match with an LP:

- Actionable resting orders from LPs (broker blocks).

Member and customer interaction with LPs

Members and customers only interact with IOC orders from LPs when they affirmatively create a Liquidnet algo or LN auto-ex order.

For Canadian equities, Liquidnet maintains a current list of external LPs (as defined in Section 1.04) and provides it to Members and customers upon request. For Canadian equities, a Member or customer can only block interaction with a specific LP if the Member or customer is affiliated, and restricted from trading, with the LP for a legal, regulatory or compliance reason.

As noted above, Members and customers can elect to block interaction with all LPs.

Process for Members and customers to confirm and update their elections

Liquidnet maintains for each Member and customer a record of each source of liquidity with which the Member or customer interacts. Through the Liquidnet Transparency Controls web-based system, Members and eligible customers can view and update the sources of liquidity with which they interact. Any changes input through Liquidnet Transparency Controls are implemented within twenty-four hours. A Member or customer also can update its Liquidnet Transparency Controls elections by contacting its sales or trading coverage.

Section 1.09   Securities traded by Liquidnet

Liquidnet provides services and software for trading in equity securities that are listed in Canada. Only exchange-listed equities can be traded on a Liquidnet execution venue.

Section 1.10   Hours of trading

Liquidnet is open for extended trading hours. Canada's hours of operation are 8am – 5pm (local time, ET). For more detail, see the "Liquidnet hours of operation" posted on the Liquidnet Member website.

Section 1.11   Execution fees

Liquidnet's execution fees for Members are set forth in the Commissions and Fees document, which is posted on Liquidnet's public website at http://www.liquidnet.com/transparency-regulatory under the Liquidnet Canada heading.

Section 1.12   Mid-price or better order instructions; price constraints

General

Liquidnet's negotiation and H2O execution functionality provide for mid-price executions in certain situations, as described in Parts VII and VIII below.

Mid-price

"Mid-price" means the mid-point between the highest displayed bid price and lowest displayed ask price in the applicable jurisdiction at the time of execution. Liquidnet determines the best bid and best ask by reference to the applicable market data feed sourced by Liquidnet, as described in Section 12.03 below.

If the spread is one cent, the mid-price is ½ cent above the best bid and below the best ask. If the spread is zero cents, the mid-price is the best bid/best ask. If the spread is negative (i.e., the best bid is higher than the best ask), Liquidnet will not execute the order. If the spread is zero, Liquidnet will only execute the order as set forth in Section 9.04.

Mid-price or better order instruction (non-US equities)

For non-US equities, Liquidnet imputes a mid-price or better order instruction for all algo, LN auto-ex, automated negotiation and LP orders. A "mid-price or better order instruction" means:

- In the case of a buy order, Liquidnet can only execute the order at the mid-price or lower
- In the case of a sell order, Liquidnet can only execute the order at the mid-price or higher.

Price constraint

On any order, a user can provide a fixed limit price. If a user only provides a mid-price or better order instruction, the user's price constraint is the mid-price. If a user provides a fixed limit price for an order and a mid-price or better order instruction also applies, the price constraint of the order is as follows:

- *Buy order.* Lower of the limit price of the order and the mid-price
- *Sell order.* Higher of the limit price of the order and the mid-price.

The price constraint of an order can vary over time based on changes in the mid-price.

Section 1.13   Definition of "within" a price

For purposes of these Trading Rules, the phrase "within" a price includes "at" that price.

Section 1.14   Additional definitions relating to pricing

"Outside a limit" or "outside a limit price" means above the limit price in the case of a buy order and below the limit price in the case of a sell order.

A "tighter limit" means a lower limit price in the case of a buy order and a higher limit price in the case of a sell order. A "looser limit" means a higher limit price in the case of a buy order and a lower limit price in the case of a sell order.

Section 1.15   High-touch and low-touch orders

A high-touch order is an order that requires an action by a Liquidnet trader before Liquidnet can commence trading of the order.

A low-touch order is an order where the customer designates an algo and the algo order can be traded by Liquidnet upon receipt without any action by a Liquidnet trader. Low-touch orders can include algo orders created through the Liquidnet desktop application and Liquidnet algos selected and routed from the customer's OMS desktop, including Liquidnet Only.

Section 1.16   Positive action rate

"Positive action" means sending an invite to a contra or creating an algo, LN auto-ex or automated negotiation order. "Positive action rate" (PAR) is the percentage of matched symbols where a party takes a positive action. Matches broken within ten (10) seconds after match formation where no action was taken by a Member are not included in the Member's PAR calculation. Only matches existing during market hours are included in a Member's PAR calculation.

Section 1.17   Liquidnet Member website (Liquidnet Docs)

For additional information, Members and customers can refer to Liquidnet Docs, a password-protected area of the Liquidnet website.

Members and customers can access Liquidnet Docs in any of the following ways:

- By link from Liquidnet's public website (www.liquidnet.com) at the bottom of the home page by clicking My Liquidnet and entering a user name and password
- By navigating to my.liquidnet.com and entering a user name and password
- Through the Liquidnet desktop application.

Liquidnet Docs is part of My Liquidnet. Members and customers also can access Liquidnet's commission management software through My Liquidnet. Documents that are available through Liquidnet Docs include the following:

- Liquidnet Trading Rules

- Liquidnet Order Handling Q&A
- Liquidnet Global Venues (Equities) – list of global venues to which Liquidnet can route algo and high-touch orders
- Liquidnet vendors with access to non-public participant data
- Liquidnet Transparency Controls (PDF version)
- Liquidnet's US Liquidity Partners
- Liquidnet SSAE18 SOC2
- Liquidnet ISO 27001 Certification
- Third-party market data terms of use
- Liquidnet's Standard Settlement Instructions
- Description of the market analytics provided through the Liquidnet desktop application.

Liquidnet also posts on Liquidnet Docs the following Liquidnet FIX specification document:

- Liquidnet Algos – FIX Specifications.

See Section 10.19 for additional detail.

LPs can access these Trading Rules and other system information through the LP website (lp.liquidnet.com). They can access the LP website directly or by clicking "Liquidity Partners" at the bottom of the home page of Liquidnet's public website.

Participants also can contact any member of their Sales coverage team or any Liquidnet Member Services representative for additional information.

Section 1.18   Desktop application with a subset of functionality

Liquidnet can make available to customers a desktop application with a subset of the functionality available to Members via the Liquidnet desktop application.

This desktop application can include all or a subset of the following functionality:

- The ability to stage indications and create algo and LN auto-ex orders from these indications
- Sending automated targeted invitations for these orders
- List identification functionality
- Analytics, including algo ranking model and course correction.

This version of the desktop application excludes the following functionality:

- Matching and negotiation functionality
- Viewing and executing against broker block notifications
- Receipt of targeted invitations
- Sending of manual targeted invitations
- Alerts of large trades executed by other participants through the system.

For the functionality included in this version of the desktop application, references to Members in these Trading Rules include customers that have access to this desktop application.

Part II.   Indications

Section 2.01   Indications

Members interact with Liquidnet by transmitting indications to the Liquidnet broker in the Member's region. Indications are non-binding, which means that a further affirmative action must be taken by the trader before an executed trade can occur.

Section 2.02   OMS interface

OMS requirement

Every Member that provides indications to Liquidnet must have an OMS with which Liquidnet can interface. An OMS is software that a Member uses to manage its order flow.

OMS integration adapter

When a trader logs on to Liquidnet, the Liquidnet integration adapter electronically transmits to Liquidnet orders from the Member's OMS assigned to that trader. After the trader has logged on, the Liquidnet integration adapter periodically queries the Member's OMS and updates Liquidnet with changes from the OMS relating to the trader's orders.

OMS limit orders

Liquidnet may filter or make ineligible for trading indications of liquidity where the related OMS order has a limit instruction that is outside the market, as described in Section 7.02. If the OMS limit price for a buy order is below the best bid price in the applicable market, or the OMS limit price for a sell order is above the best ask price in the applicable market, it is considered "outside the market."

Additional information

The method of integration with a Member, including whether an OMS integration adapter is provided, can vary based on the Member's OMS and workflow. Members can obtain additional information regarding specific OMS interfaces by contacting Liquidnet Member Services.

Section 2.03   Instrument types

Instrument types

Liquidnet maps indications received from a Member to a Liquidnet instrument type. The Liquidnet instrument type determines the country where any resulting execution will clear and settle.

Liquidnet Instrument Type	Exchange/market where equity is listed/admitted for trading	Settlement Currency	Settlement Country
CAE	Toronto Stock Exchange; TSX Venture Exchange; Canadian Securities Exchange (CSE)	Canadian dollars (or US dollars where the exchange symbol is .U)	Canada

Ticker Button Symbols

The symbol displayed on a ticker button is derived from the symbol that is displayed to the trader in the trader's OMS.

Section 2.04　　Indication quantities

OMS order quantity and available quantity

"OMS order quantity" is the quantity specified in the Member's OMS for a particular OMS order. "Available quantity" is the quantity specified in the Member's OMS for a particular OMS order, less the quantity previously executed or placed at other trading venues, as specified in the Member's OMS.

OMS order quantity and available quantity are determined by the Member's OMS. A trader cannot change these quantities in Liquidnet except by changing the quantities in his OMS.

Working quantity

"Working quantity" for an indication received by Liquidnet defaults to the available quantity for that indication, but a trader can manually change his working quantity with Liquidnet to less than (but not more than) the available quantity. A trader's working quantity sets the maximum quantity he or she can execute in a negotiation or through a Liquidnet algo, LN auto-ex, automated negotiation or manual targeted invitation order . A trader can change his or her working quantity for an indication at any time prior to a negotiation.

Section 2.05　　List identification

Liquidnet makes available "list identification" functionality to facilitate trading of lists by Members. With this functionality, a Member can designate indications transmitted to Liquidnet as part of a list and group, view and manage the indications on the list based on designated order and stock characteristics, such as side, country, sector and percentage of ADV. At a Member's request, Liquidnet also can seek to auto-detect a list based on a number of indications being received by Liquidnet within a short period of time. The execution process for trading an indication on a list is the same as the execution process for trading indications that are not part of a list.

Section 2.06   Available configuration for managing multiple matched indications

General

Liquidnet makes available a desktop configuration to enable traders who have large numbers of simultaneous matches to manage those matched indications at the same time with fewer clicks/keystrokes. A trader with this configuration may select multiple matched indications (including matches with available contras, notifications of broker block opportunities, and/or notifications of firm contra orders) and submit mid-peg orders in response to each of those matches by specifying order quantity as a percentage of the available quantity for each indication.

Order quantity

The quantity percentage specified by a trader, e.g., 25%, 50%, 100%, etc., applies to each indication in the selected group, subject to the applicable minimum match quantity as set forth in Section 7.03 and/or any applicable regulatory minimum quantity, e.g., large-in-scale threshold. If the quantity percentage specified by a trader results in an order quantity below the applicable system minimum or regulatory minimum for any selected indication, Liquidnet will apply the applicable minimum quantity. For example, if a trader selects a group of matched indications in US equities, including one indication in symbol XYZ with an available quantity of 10,000 shares, and the trader specifies 40% as the quantity percentage applicable to each of the matched indications, Liquidnet will submit an order with the applicable minimum match quantity of 5,000 shares for the selected indication in XYZ because the percentage specified by the trader results in an order quantity for XYZ (4,000 shares) below the applicable minimum for US equities (5,000 shares, assuming 5% ADV and US$200,000 minimums also applicable to US equities are higher). Similarly, in the case of a Member configured to match on quantity placed at other trading venues, as set forth in Section 7.04, if a trader at the Member firm specifies a quantity percentage that results in an order quantity greater than the "unplaced" quantity, Liquidnet will create an order for that lesser, unplaced quantity.

Pricing

When submitting mid-peg orders for multiple matched indications, Liquidnet will apply a Member's OMS limits (where provided by the Member) and other applicable pricing preferences specified by the Member (as applicable).

Part III.   Liquidnet algo orders

Section 3.01   Creation of algo orders by participants

Members

Members can create algo orders through the Liquidnet desktop application. A trader at a Liquidnet Member or customer firm can create a Liquidnet algo order by designating all or a portion of an indication as a Liquidnet algo order. A trader can designate a Liquidnet algo order whether or not the trader has received notification of a match on the associated indication.

Customers

Algo customers can transmit algo orders from their OMS. Automated routing customers can transmit automated routing orders from their OMS.

Liquidnet Trading Desk personnel

Liquidnet Trading Desk personnel can create algo orders when handling trading desk customer orders, subject to the customer's instructions. Liquidnet Trading Desk personnel have access to the Liquidnet algo orders described below; they also have access to algos licensed from third party algo providers and can route orders directly to specific third-party execution venues. These customer orders are high-touch orders.

Liquidity partners

Liquidity partners can create algo orders that interact with Liquidnet H2O and external venues, but not with the Liquidnet negotiation system. These algo orders interact with Liquidnet H2O in the same manner as other LP orders but also can access third-party execution venues. The minimum order quantity for an LP resting order for Canadian equities is the lesser of 10,000 shares and $100,000 in value.

Section 3.02   Liquidnet-Only algo orders

Members, customers and Liquidnet Trading Desk personnel can select among various Liquidnet algo types, as set forth below. If a user selects a "Liquidnet-Only" algo, the order can access the Liquidnet negotiation system and Liquidnet H2O but will not access external venues. If the user selects an algo type that is not "Liquidnet-Only", the order can access the Liquidnet negotiation system, Liquidnet H2O and external venues. While Liquidnet-Only orders do not route to external venues, Liquidnet refers to them as algo orders because they are created by participants in the same manner as Liquidnet algo orders that can route to external venues. Liquidnet-Only is a configuration (specifically, a venue type) of the Liquidnet Dark algo. For an order routed to an external venue, execution is subject to the rules of the external venue to which the order is routed.

Section 3.03   **Direct to Desk orders**

Liquidnet Members can use the Liquidnet desktop application to transmit orders to the Liquidnet trading desk by selecting Direct to Desk. Liquidnet also can provide the Direct to Desk option to customers through their OMS. When a Member or customer creates a Direct to Desk order, the Member or customer will provide instructions to the Liquidnet trading desk relating to the handling of the order.

Section 3.04   **Firm and conditional algo orders**

Types of conditionality

Algo orders can interact with the Liquidnet negotiation and H2O systems on a firm or conditional basis. Conditional functionality can be incorporated into Liquidnet's algo order functionality.

Conditional functionality for algo orders directed by Members and customers

Members and customers can take advantage of conditional order functionality for algo and Liquidnet-only orders for Canadian equities. This functionality, which is fully automated from the point at which the Member or customer transmits the conditional order to Liquidnet, allows the Member or customer to rest actionable order flow in the Liquidnet negotiation and H2O systems that may include shares already placed at other trading venues. These orders are considered "conditional" since the Member or customer will commit the order only prior to execution with a matched contra. These conditional orders do not interact with IOC orders from LPs.

Prior to executing a conditional order, Liquidnet sends a request to the Member's or customer's system to commit the shares on the order, and the Member's or customer's system responds by sending all or a portion of its remaining unexecuted shares to Liquidnet (known as a "firm-up"). This firm-up request is used to protect the Member or customer against over-execution. Member and customer firm-up rates are periodically reviewed by Liquidnet personnel, with appropriate follow-up to the Member or customer to address any issues. In deciding what steps, if any, to take, Liquidnet will take into account the Member's or customer's firm-up rate relative to all other participants, whether there is adverse price movement to contra-side participants as a result of the failure to firm-up, potential frustration to other participants, the relative firm-up rates against different categories of contra interaction, and other relevant factors.

Conditional functionality incorporated into Liquidnet's algo functionality

For certain types of algos, as described in Section 3.10 below, Liquidnet interacts with the negotiation and H2O systems on a conditional basis. This type of conditional functionality does not require a firm-up request from the Member or customer. Instead, the Liquidnet algo, which could be working shares at an external venue, must firm-up the order to the negotiation and H2O system, as applicable, immediately prior to execution.

Available configuration to only interact with firm orders

Liquidnet makes available a configuration whereby a participant may elect that its firm resting orders only interact with other firm orders, and not interact with conditional orders (the "Firm Only Configuration"). A participant may contact its Liquidnet Coverage to request the Firm Only Configuration.

Section 3.05   Liquidnet algos for Canadian equities

At present, Liquidnet makes generally available the following suite of algos for trading Canadian equities:

Region	Liquidity Seeking Algos				Benchmark Algos (aka Basic Algos)					
	Liquidnet-Only	Liquidnet Dark	Barracuda	Sweep Then Post	VWAP	TWAP	POV	Dynamic POV	IS	CLOSE
CANADA	Available as a configuration (venue type) of Liquidnet Dark	Available	Available	Available	Available					

Liquidnet may also offer custom versions of its benchmark and liquidity-seeking algos designed to achieve particular objectives, including customization that permits trading prior to open of the primary market. For Canadian equities, Liquidnet offers a version of Liquidnet Dark known as Block Capture. Block Capture is configured to capture buy-side block liquidity at the start of an order by initially targeting the venues that Liquidnet has determined have the highest probability of block liquidity, while also seeking liquidity at other venues through selective use of conditional and firm orders.

Members and customers should contact their Liquidnet coverage for more detail regarding the specific algos that are available in each region. Direct to Desk functionality is not considered an algo type and is available for all regions.

Section 3.06   Roll-out process for new algos and significant algo changes

The roll-out process for new algos and significant algo changes typically involves three stages:

- *Initial stage*. During the initial stage, the algo changes are made available only to Liquidnet Trading Desk personnel.

- *Pilot stage*. During the pilot stage, the algo changes are made available to specific Members and customers. As a general matter, priority is given to Members and customers that are current active users of the applicable algo or that have indicated an intention to use the applicable algo. Where a Member or customer requires customization of an algo that would require time for Liquidnet and the Member or customer to implement, that Member or customer might not be included in the pilot stage.

- *Full roll-out*. At this stage, the algo changes are made available to all Members and customers, subject to technical implementation.

It is Liquidnet's policy to provide Members and customers advance notice of the initial and full roll-out stages of a new algo type and to provide participating Members and customers with notice of the pilot stage. The algo types are: Liquidity Seeking Algos; Benchmark Algos; and Portfolio Trading Algos. Liquidnet also will update on a periodic basis when new algos became available within a particular algo type in a particular region during a preceding period.

Section 3.07 Algo order parameters

A parameter for an order means an election relating to an order that a Member can make through the desktop application. A configuration means an election that Liquidnet Product Support personnel can implement at the request of a Member.

The following parameters are available for Liquidnet algos, depending upon the Liquidnet algo type:

- Strategy
- Algo target quantity
- Algo limit price
- Participation level (where applicable)
- Urgency (where applicable)
- I Would price (where applicable)
- Start and end time
- Participation in opening and closing auction (where applicable)
- Post types
- Venue types
- Minimum quantity

The following additional parameters are available for the portion of a Liquidnet algo that interacts with the Liquidnet negotiation and H2O systems and external venues on a conditional basis:

- Block target quantity
- Block limit price
- Block minimum quantity.

Liquidnet can provide additional algo parameters from time-to-time. Members and customers should contact their Liquidnet coverage or Liquidnet Member Services for more details regarding algo parameters.

Section 3.08 Algo order configurations

The following configurations are available for Liquidnet algos, depending upon the Liquidnet algo type:

- Recurring minimum execution quantity (applies to all executions on the algo)

- If there is an odd-lot residual remaining on a Liquidnet-Only or Liquidnet Dark algo order, Liquidnet automatically cancels the Liquidnet-Only or Liquidnet Dark algo and generates an 'implementation shortfall' algo order without a limit price. A participant with this configuration can request that a different algo type be used for handling these odd-lot residuals. A participant with this configuration also can request that the residual amount to which this applies be configured to an amount other than an odd-lot. This configuration is referred to as "odd-lot completion".
- Venues to which an algo can route (where applicable)
- Whether fair value protection is applied
- Whether block mode is applied (see Section 3.10 below)
- Whether to access the Liquidnet negotiation and H2O systems for a period of time prior to routing to external venues; in this scenario, routing to external venues is delayed for a configurable default time period set by Liquidnet. Members and customers can request that Liquidnet modify this configuration.

The following additional configurations are available for the portion of a Liquidnet algo that interacts with the Liquidnet negotiation and H2O systems on a conditional basis:

- Recurring block minimum quantity
- Block venues
  - Whether to interact with either or both of the negotiation and H2O systems

Liquidnet can provide additional algo order configurations from time-to-time. Members and customers should contact their Liquidnet coverage or Liquidnet Member Services for more details regarding algo order configurations.

A customer can elect on an order-by-order basis whether to interact with LP orders. For buy-side customers, this election is only available if the customer has elected through Liquidnet Transparency Controls to interact with LPs.

Section 3.09   Limit price for algo orders; imputed limit price where trader does not set a limit price

OMS and match limits

When a Member provides a limit price for an indication in its OMS, Liquidnet defaults the limit price for an associated algo order to the OMS limit, unless the Member has overridden the OMS limit with a match limit. Whether or not a Member has an OMS limit on an indication, the Member can set a limit price for the indication through the Liquidnet desktop application (referred to as a "match limit"). In that case, Liquidnet defaults the limit price for an associated algo order to the match limit (as long as it would not override a protected OMS limit, as described in the next paragraph).

Protect OMS limit configuration

By default, Liquidnet enables the protect OMS limit configuration for a Member, but a Member can request to have this configuration disabled. If a trader has this configuration enabled, when setting a match limit or creating an algo order for an indication that has an OMS limit, a trader can set a tighter limit than the OMS limit but not a looser limit. If a trader does not have the protect OMS limit configuration enabled, a trader can override the OMS limit.

Protect match limit configuration

If a trader has the protect match limit configuration enabled, when creating an algo order for an indication where the trader has set a match limit, a trader can set a tighter limit than the match limit but not a looser limit; in other words, the trader cannot override the match limit. If a trader does not have the protect match limit configuration enabled, a trader can override the match limit (as long as it would not override a protected OMS limit).

A trader can only have the protect match limit configuration enabled if the trader also has the protect OMS limit configuration enabled.

Imputed limit price

A trader can elect one of the following defaults for the scenario where a trader does not have an OMS limit or a match limit:

- Set a default imputed limit, as described below
- Set no imputed limit price.

A trader can set a default imputed limit price through the Liquidnet desktop application expressed as either of the following:

- Basis points from the mid-point as of the time that the trader creates the algo order; or
- Cents from the best offer in the market (in the case of a buy order) or cents from the best bid in the market (in the case of a sell order) as of the time that the trader creates the algo order.

In all cases, the minimum price increments of the applicable country (or the applicable class of securities within the country) would apply, such that if the limit price above is not equal to a permitted increment, the effective limit price would be:

- In the case of a buy limit price, the lowest permitted price increment above that limit, and
- In the case of a sell limit price, the highest permitted price increment below that limit price.

A trader can modify an imputed limit price on an order-by-order basis, subject to complying with the price increment requirements of the applicable country (or class of securities of the country).

Section 3.10   Algo order interaction with the Liquidnet negotiation and H2O systems and external venues

Interaction through firm and conditional orders

Liquidnet manages algo order interactions with the Liquidnet negotiation and H2O systems. Interaction with the negotiation and H2O systems can be on a firm or conditional basis, depending upon the algo selected by the Member or customer, as follows:

- *Liquidnet Only.* Liquidnet Only algo orders only interact with the negotiation and H2O systems as firm orders.
- *All Benchmark algos (except Close).* When the Member or customer sets the Liquidnet Block I Would functionality with a block target quantity greater than zero, these orders interact on a conditional basis with the negotiation and H2O systems and with any external execution venue that Liquidnet accesses on a conditional basis (except where the Member or customer has opted-out from interaction with a venue). Interaction is based on the block target quantity, block limit and block minimum quantity designated by the Member or customer. For customers using an order management system (OMS) to create algos, the OMS may display Liquidnet I Would as a configuration even though the actual configuration is Block I Would.
- *Liquidnet Dark.* These orders can interact with the negotiation and H2O systems as conditional and as firm orders.
- *Sweep then Post and Close*. These orders are executed externally and do not interact with the negotiation and H2O systems.

If Liquidnet transmits an algo order to the negotiation and H2O systems on a conditional basis, the algo order can interact with contra-side liquidity in the negotiation and H2O systems, except for contra-side IOC orders in Liquidnet H2O. If Liquidnet transmits the order to the negotiation and H2O systems on a firm basis, the algo order can also interact with contra-side IOC orders in Liquidnet H2O.

Accessing external venues on a conditional basis

Liquidnet's algos can access certain external execution venues on a conditional basis, where permitted by the external venue.

Use of internal and third-party algo and routing technology

Liquidnet internally develops algorithmic, aggregator and smart order routing technologies to maintain trading schedules and route to external venues and exchanges. Liquidnet also utilizes third-party algorithmic, aggregator and smart order routing technologies to maintain trading schedules and route to exchanges and other venues, including the Liquidnet negotiation and H2O systems.

In the situation where a Member or customer algo order has both a conditional order and a firm

order matching with a contra-side order in Liquidnet H2O, Liquidnet will seek to prioritize the execution that would result in a larger execution.

Members and customers should contact their Liquidnet Coverage or Liquidnet Member Services personnel for more detail regarding the third-party algorithmic, aggregator and smart order routing technologies used and licensed by Liquidnet.

Taking into account external and Liquidnet executions

When determining routing logic for current algo orders and evaluating the execution performance of different trading venues, Liquidnet can take into account historical and intra-day executions of other Liquidnet algo orders in the Liquidnet negotiation and H2O systems and at external venues.

Access by Liquidnet algo orders to a subset of information that would be available to a manual contra (block mode)

Liquidnet algo orders (including conditional orders) for Members and customers may receive notification in real-time of a subset of information regarding matched contras that would be available to a trader at a Member firm using the Liquidnet desktop application. These notifications include: matching with an available contra; commencement of a negotiation with a contra; end of a negotiation with a contra; and breaking of a match with a contra.

Liquidnet's algos can utilize this information in making decisions relating to the routing of the Member's or customer's algo order to the Liquidnet execution venues and external venues. The objective in providing these notifications is to increase the opportunity for an algo order to achieve a block execution with a contra in a Liquidnet execution venue. This functionality is sometimes referred to as "block mode." Block mode is available for the Liquidnet Dark, IS and Barracuda algos for Canadian equities.

Section 3.11   Slicing

Through the Liquidnet desktop application, a trader can designate different algo types for different portions of the same indication.

Section 3.12   Algo order automatically created upon negotiated execution (surge capture)

Conditions for a surge capture order

Upon request of a Member, Liquidnet will configure the system to automatically create an algo order (referred to as a "surge capture order") upon behalf of the Member where specified conditions have occurred. Liquidnet refers to this functionality as "surge capture". The following conditions for creation of a surge capture order are applicable for users of Liquidnet version 5.8 or higher:

- Liquidnet, at the Member's request, has enabled the Member for surge capture.
- A trader at the Member firm executes a trade through manual or automated negotiation (as described in Part VII), an LN auto-ex order (as described in Part IV), a manual

targeted invitation order (as described in Part VI); we refer to this as the "triggering execution".

- The trader's firm quantity at the time of the triggering execution is higher than the executed quantity of the triggering execution by at least a round lot for the applicable market

- The execution quantity for the triggering execution meets the minimum match size for the region (as provided in Section 7.03) or any larger minimum execution size set by Liquidnet at the Member's request as a condition for a surge order to be created

- The Member does not, at the time, have a desktop algo order with the same symbol and side.

Time-in-force for surge capture

If an execution occurs that meets the conditions set forth in the preceding sub-section, and a Member has elected this configuration, the system will terminate any negotiation and automatically create an algo order on behalf of the Member with a time-in-force of one minute, or another default time-in-force period for surge capture orders as requested by the Member.

Limit price for surge capture

The limit price for a surge capture order is the execution price for the triggering execution, except that in the case of a mid-price execution where the execution price is not a permitted limit price for the primary market in the applicable jurisdiction, the limit price will round to the next higher (in the case of a buy order) or lower (in the case of a sell order) permitted limit price.

Upon request by a Member, where a mid-price execution occurs in Liquidnet that is not a permitted limit price for an execution venue in the applicable jurisdiction, the limit price will round to the next lower (in the case of a buy order) or higher (in the case of a sell order) permitted limit price when routing to that execution venue.

Upon request by a Member, Liquidnet can compute the limit price for all of a Member's surge capture orders as one of the following (as requested by the Member):

- The execution price for the triggering execution as adjusted by a default basis points or cents per share amount set by the Member; the limit price is increased by the default amount in the case of a buy surge capture order and decreased by the default amount in the case of a sell surge capture order

- The best offer in the market at the time a buy surge capture order is created or the best bid in the market at the time a sell surge capture order is created

- In the case of a buy surge capture order, the lower of the two amounts determined pursuant to the preceding two bullets; in the case of a sell surge capture order, the higher of the two amounts determined pursuant to the preceding two bullets.

Where an adjusted limit price as described in the first bullet is not a permitted limit price for the primary market or an execution venue in the applicable jurisdiction, the system will round the adjusted limit price as described in the first paragraph of this sub-section.

Quantity for surge capture

The quantity for a surge capture order is the lower of the following amounts:

- The amount by which the trader's firm quantity at the time of the triggering execution exceeds the execution quantity of the triggering execution
- The default maximum order size, which is 500,000 shares for Canadian equities

Liquidnet can adjust the default maximum order size for a Member at the Member's request.

Availability by instrument type

For users of Liquidnet version 5.8 or higher, surge capture is available for Canadian equities. A Member can elect to enable surge capture functionality for one or more instrument types, as and when available.

Algo and configurations for a surge capture order

The specific algo and configurations that Liquidnet uses for a surge capture order may vary based on instrument type. For each market, Liquidnet uses a default algo that seeks to execute shares during the time-in-force period of the surge capture order. A Member can request an alternative default algo or alternative configurations for surge capture for any market, subject to Liquidnet's approval.

Ability to edit or cancel a surge capture order

The Liquidnet desktop notifies the user when a surge capture order has been created as described in this Section 3.12. A user can edit or cancel a surge capture order in the same manner as any other desktop algo order.

Ability to create a surge capture order on an order-by-order basis

If Liquidnet has enabled a Member using Liquidnet version 5.8 or higher for surge capture functionality (as described above), upon request by the Member, Liquidnet can configure the Member with the ability, through the desktop application, to enable or disable surge capture functionality on a match-by-match basis prior to the triggering execution. For this purpose, "match" means a match with a contra indication. If a Member elects this configuration, the Member can elect either of the following configurations through the preferences area of the desktop application:

- Surge capture is enabled for all matches, and, prior to a triggering execution, the Member can disable surge capture on a match-by-match basis. This is the default preference.
- Surge capture is disabled for all matches and, prior to a triggering execution, the Member can enable surge capture on a match-by-match basis.

Section 3.13   **Algo orders by participants in Canadian inter-listed equities**

If a participant creates an algo order in a Canadian equity where the issuer also has a fungible listed equity in the US (an inter-listed equity), Liquidnet's routing broker for Canadian equities can execute the inter-listed equity in the US in accordance with Canadian regulation of such securities. Liquidnet settles any shares executed in this manner with the Liquidnet participant in Canadian dollars and in the Canadian equity. All FX conversion is based on the currency conversion rate determined by Liquidnet's routing broker.

A Canadian participant can elect to have this process also apply for LN Only orders, in which case Liquidnet Canada can represent the order conditionally in the Liquidnet Canada ATS while also routing the order to Liquidnet Canada's routing broker for routing to the Liquidnet ATSs in the US.

Section 3.14   **Configuration to only interact with other firm orders**

Members and customers can elect that their orders interact only with other firm orders in Liquidnet H2O and not be displayed to other participants with matching contra-indications.

Part IV.   LN auto-ex orders

Section 4.01   Creation of LN auto-ex orders by Members

Members can create LN auto-ex orders through the Liquidnet desktop application. A trader at a Liquidnet Member firm can create an LN auto-ex order by designating all or a portion of an indication as an LN auto-ex order. A trader can designate an LN auto-ex order whether or not the trader has received notification of a match on the associated indication.

Section 4.02   Execution venues

Execution venues

LN auto-ex orders can access the Liquidnet negotiation system and Liquidnet H2O but cannot access external venues (except for clean-up quantity, as described below).

Clean-up quantity

For certain instrument types, a Member can elect a clean-up quantity on an order-by-order basis. If the remaining quantity of an order is at or below the designated clean-up quantity, Liquidnet can route the order to a third-party execution venue.

Section 4.03   Firm and conditional LN auto-ex orders

LN auto-ex orders can be conditional or firm, as directed by the Member. The creation of a conditional LN auto-ex order does not generate a placement in the Member's OMS immediately upon order creation, and instead generates a placement when the LN auto-ex order is (i) matched with a contra or (ii) prior to execution, as directed by the Member. By default, conditional LN auto-ex orders generate a placement when the LN auto-ex order is matched with a contra . The creation of a firm LN auto-ex order generates a placement in the Member's OMS immediately upon order creation.

Prior to executing a conditional order, Liquidnet sends a request to the Member's system to commit the shares on the order, and the Member's system responds by sending all or a portion of its remaining unexecuted shares to Liquidnet (known as a "firm-up"). This firm-up request is used to protect the Member against over-execution. Member firm-up rates are periodically reviewed by Liquidnet personnel, with appropriate follow-up to the Member to address any issues. In deciding what steps, if any, to take, Liquidnet will take into account the Member's firm-up rate relative to all Members, whether there is adverse price movement to contra-side participants as a result of the failure to firm-up, potential frustration to other participants, the relative firm-up rates against different categories of contra interaction, and other relevant factors.

Section 4.04   Parameters for LN auto-ex orders

The following parameters are available for LN auto-ex orders in Canadian equities:

- Quantity
- Limit price
- Cancel condition: match break, cancel timer (order duration) or cancel time
- Minimum execution quantity
- Whether minimum execution quantity applies to all executions on the auto-ex order or only the first execution
- Whether or not to interact with LPs
- Clean-up quantity
- Whether or not to send targeted invitations

Section 4.05 Configurations for LN auto-ex orders

The following configuration applies for LN auto-ex orders in Canadian equities:

- Whether to interact on a firm or conditional basis

Section 4.06 OMS and match limits

The provisions relating to OMS and match limits set forth in Section 3.09 also apply for LN auto-ex orders.

Section 4.07 Odd-lot residuals

Upon request, Liquidnet can enable a Member for odd-lot completion. If a Member is enabled for odd-lot completion and there is an odd-lot residual remaining on the Member's LN auto-ex order, Liquidnet automatically cancels the LN auto-ex order and generates an "implementation shortfall" algo order without a limit price. A Member with this configuration can request that a different algo type be used for handling these odd-lot residuals. A Member with this configuration also can request that the residual amount to which this applies be configured to an amount other than an odd-lot.

Part V.   Automated negotiation orders

Section 5.01   Creation of automated negotiation orders by Members

Members can create automated negotiation orders through the Liquidnet desktop application. A trader at a Liquidnet Member firm can create an automated negotiation order by designating all or a portion of an indication as an automated negotiation order. A trader can only create an automated negotiation order when the trader has received notification of a match on the associated indication.

Section 5.02   Availability and execution venues

Availability

Automated negotiation order functionality is available for Canadian equities.

Execution venues

Automated negotiation orders can access the Liquidnet negotiation system and Liquidnet H2O but cannot access external venues, except that, for Canadian and US equities and most EMEA equities, if there is an odd-lot remaining on an automated negotiation order and the Member is enabled for odd-lot completion, Liquidnet automatically cancels the automated negotiation order and generates an 'implementation shortfall' algo order. A Member with this configuration can request that a different algo type be used for handling these odd-lot residuals. A Member with this configuration also can request that the residual amount to which this applies be configured to an amount other than an odd-lot.

Interacting with LP liquidity

If a trader's firm has elected to interact with LP orders, by default, the trader's automated negotiation orders will interact with LP orders upon the earlier of: (i) thirty (30) seconds after the order was created and (ii) the time when the order would otherwise be canceled due to all eligible matches with contra indications having broken. Upon trader request, Liquidnet can configure the trader's automated negotiation orders not to interact with LP orders.

Firm orders

Automated negotiation orders must be firm.

Section 5.03   Parameters for automated negotiation orders

The following parameters are available for automated negotiation orders:

- Quantity
- Limit price
- Minimum execution quantity (if previously configured by the Member).

Section 5.04   Configurations for automated negotiation orders

The following configurations apply for automated negotiation orders:

- Match break condition; or cancel timer (order duration)
- Configurations relating to minimum execution quantity (as described below)
- Whether minimum execution quantity applies to all executions on the automated negotiation order or only the first execution.

Section 5.05   Minimum execution quantity for automated negotiation orders

Default minimum execution quantity

Currently, the default minimum execution quantity for all automated negotiation orders is the lowest of:

- The trader's tolerance for the applicable match
- 25% of the target quantity of the automated negotiation order
- For Canadian equities, the minimum quantity cap for automated negotiation orders set by Liquidnet, which is the minimum matching quantity for the symbol, as specified in Section 7.03.

Available configurations

By default, a trader cannot view or adjust the minimum execution quantity for an automated negotiation order. Upon request, Liquidnet can configure a trader with the ability to view and adjust the minimum execution quantity for any automated negotiation order on an order-by-order basis (referred to as the minimum quality control configuration).

By default, a trader with the minimum quantity control configuration cannot increase the minimum execution quantity for an automated negotiation order to an amount that is above match tolerance. Upon request, Liquidnet can configure a trader with the minimum quantity control configuration with the further ability, on an order-by-order basis, to increase the minimum quantity to an amount that is above match tolerance.

Section 5.06   Notification of negotiation status

The desktop application notifies a trader using automated negotiation functionality of the status of any ensuing negotiation with the contra in a similar manner as a manually negotiating trader, ,

except in the scenario where a trader increases his or her minimum execution quantity above match tolerance.

Section 5.07 Associated indication for an automated negotiation order

When a Member creates an automated negotiation order, the Member continues to match on the associated indication. Liquidnet will not change the status of the associated indication.

One of the following available configurations will apply when an automated negotiation order is canceled or fully executed:

- Liquidnet will not change the status of the associated indication i.e., it will remain available to match (default)
- Liquidnet will automatically convert the associated indication to outside.

As noted, Liquidnet will maintain the status of the associated indication "as available to match" when an automated negotiation order is created or when an automated negotiation order is canceled or fully-executed.

Section 5.08 OMS and match limits

The provisions relating to OMS and match limits set forth in Section 3.09 also apply for automated negotiation orders.

Part VI.   Targeted invitations

Section 6.01 **Manual targeted invitations and automated targeted invitations**

There are two types of targeted invitations:

- Manual targeted invitations
- Automated targeted invitations (formerly known as "targeted invitations from algos.").

Automated targeted invitations are an optional parameter or configuration associated with algo, Liquidnet-only and LN auto-ex orders in Canadian equities.

Automated targeted invitations are also available for LP resting orders and LP algo orders in APAC, EMEA, LATAM and US equities. Implementation of automated targeted invitations for LP resting orders and LP algo orders in Canadian equities is subject to prior approval by the Canadian regulators.

Section 6.02 **Qualifying Members and customers**

While all Members can send manual targeted invitations, and all Members and customers can send automated targeted invitations, only qualifying Members and, in the markets noted below, qualifying customers, as described in this Section 6.02, can receive targeted invitations. Only qualifying customers (as determined below) located in APAC, EMEA, LATAM or US can receive targeted invitations in APAC, EMEA, LATAM and US equities. Receipt of targeted invitations by Canadian customers and/or for Canadian equities is subject to prior review and approval by the Canadian regulators.

Qualifying Members and customers are determined on a quarterly basis based on a Member's or customer's activity during the two prior calendar quarters.

To qualify for any quarter, a Member must meet either of the following conditions:

- Average daily liquidity of USD $100M or more provided to Liquidnet during either of the two prior quarters
- Positive action rate (PAR) of 40% or higher during either of the two prior quarters.

To qualify for any quarter, a customer must have created at least nine (9) firm orders during either of the two prior quarters. If a Member is also a customer, the qualifying Member criteria are applied instead of the qualifying customer criteria

Liquidnet will make this determination for each participant promptly after the end of each calendar quarter, notify participants whose eligibility status has changed, and implement the changed status for the remainder of the quarter.

As an example of timing, during early January 2021, Liquidnet would determine which

participants qualify as qualifying Members or customers based on the positive action rate, liquidity data, or order activity for Q3 and Q4 2020, notify participants whose qualification status

has changed, and implement the changed qualification status for these participants for the remainder of the 1st quarter of 2021.

Liquidnet can make exceptions to the eligibility requirements from time-to-time if failure to meet the requirements was the result of a technology configuration (for example, if PAR was below 40% as a result of a technology configuration), subject to an internal process to ensure any exceptions are determined in an objective and non-discriminatory manner.

If a Member or customer has trading desks in multiple regions that operate under a single Member ID or customer ID, the participant can qualify as a qualifying Member or customer in each region if any region meets the qualifying Member or customer conditions.

Liquidnet can update the conditions for becoming a qualifying Member or customer at any time upon prior notice to participants, but any change that further restricts the terms upon which participants can qualify will only become effective subject to 30 days' prior notice to participants.

A new Member or customer is considered a qualifying Member or customer during the calendar quarter that it commences trading on Liquidnet and for the following calendar quarter. For this purpose, a Member or customer that has not traded with Liquidnet for more than one year is treated as a new Member.

For purposes of the determinations above, liquidity is based on the indications transmitted by a Member to Liquidnet. The liquidity of an indication for a particular day is the maximum available quantity of the indication during that day. Average daily liquidity during a quarter takes into account trading days only. For purposes of computing average daily liquidity, amounts in a currency other than US dollars are converted to US dollars. PAR is rounded to the nearest whole percent.

Section 6.03 Liquidnet Transparency Controls for targeted invitations

To receive targeted invitations, a Member or customer must opt-in through Liquidnet Transparency Controls and otherwise qualify as a qualifying Member or customer. Members can send manual targeted invitations, and Members and customers can send automated targeted invitations, whether or not they opt-in through Liquidnet Transparency Controls, and there are no qualification requirements. By opting-in to receive targeted invitations through Liquidnet Transparency Controls, a participant opts-in to Liquidnet accessing the participant's indication, invitation, order and/or execution data to determine whether the participant should receive a targeted invitation, as described below. Any opt-in to targeted invitations through Liquidnet Transparency Controls applies to all regions where this functionality is available, but upon request of a participant Liquidnet can disable access to targeted invitations based on trader or instrument type.

Section 6.04 **Description of manual targeted invitation functionality**

Sending a manual targeted invitation notification

Through the Liquidnet desktop application, a trader at a Member firm can send a manual targeted invitation notification to qualifying Members and customers. A targeted invitation notification relates to a specific stock.

A manual targeted invitation has a notification component, as described in this Section 6.04, and, if there is at least one qualifying recipient for the targeted invitation (as described below), results in a firm order in Liquidnet H2O (a "targeted invitation order") and an indication available for matching in the Liquidnet negotiation system. A targeted invitation order can execute against contra-side orders in the Liquidnet negotiation and H2O systems in the same manner as an algo order, subject to the following exceptions:

- The notification and other provisions of this Part VI apply
- Manual targeted invitation orders in Canadian equities cannot execute against orders from LPs.

Manual targeted invitation orders in APAC, EMEA, LATAM and US equities can execute against orders from LPs, subject to the Member having opted-in to interacting with LPs. But if a Member has opted-in to interacting with LPs, a trader at the Member firm can instruct Liquidnet that the trader does not want to interact with LPs for manual targeted invitation orders in these equities. Implementation of this functionality for Canadian equities is subject to review and approval by the Canadian regulators.

A manual targeted invitation notification is displayed during the period that the targeted invitation is in effect.

Setting criteria for who can receive a targeted invitation notification

This sub-section applies to the notification component of a targeted invitation. When creating a manual targeted invitation, a trader must designate a look-back period, which can be any of the following:

- Current trading day
- Current trading day and the prior trading day
- Current trading day and the 5 preceding trading days
- Current trading day and the 10 preceding trading days
- Current trading day and the 15 preceding trading days
- Current trading day and the 20 preceding trading days
- Current trading day and the 30 preceding trading days
- Current trading day and the 45 preceding trading days
- Current trading day and the 60 preceding trading days
- Current trading day and the 90 preceding trading days.

By default, a targeted invitation notification is sent to traders at qualifying Members and customers where the recipient trader meets any of the following criteria:

- *Opposite-side indication in Liquidnet.* Liquidnet received an opposite-side indication from the recipient at any time during the look-back period, where the available quantity was at least the minimum matching and negotiation size for the applicable region, as set forth in Section 7.03.

- *Opposite-side indication placed away.* The recipient has or had an opposite-side indication in its OMS at any time during the look-back period where the quantity placed at other brokers is or was at least the minimum matching and negotiation size for the applicable region, as set forth in Section 7.03.

- *Opposite-side order in Liquidnet*. Liquidnet received an opposite-side order from the recipient at any time during the look-back period, where the order size was at least the minimum matching and negotiation size for the applicable region, as set forth in Section 7.03.

- *Opposite-side execution in Liquidnet.* The recipient executed in Liquidnet with anyone at any time during the look-back period, where the recipient executed on the opposite-side to the sender's order (for example, the recipient executed a buy order and the sender's targeted invitation is for a sell order) and the recipient's execution quantity was at least the minimum matching and negotiation size for the applicable region, as set forth in Section 7.03.

- *Executed against sender.* The recipient executed in Liquidnet against the sender at any time during the look-back period, where the execution quantity was at least the minimum matching and negotiation size for the applicable region, as set forth in Section 7.03.

- *Invited the sender.* The recipient sent the sender a negotiation invitation or targeted invitation notification at any time during the current trading day.

All targeting criteria are applied for the specific stock. The foregoing is subject to the exceptions described below.

Traders with same-side indications or orders

A trader is not eligible to receive a targeted invitation notification in a symbol if the trader had a same-side indication in the symbol during the applicable look-back period (the shorter of the 20 prior trading days and the sender's look-back period) on a more recent trading day than, or the same trading day as, the trader's most recent opposite-side indication in that symbol. A trader is not eligible to receive a targeted invitation notification in a symbol if the trader had a same-side order in the symbol during the applicable look-back period (the shorter of the 20 prior trading days and the senders look-back period) on a more recent trading day than, or the same trading day as, the trader's most recent opposite-side order in that symbol.

Restricting the criteria for who can receive a targeted invitation notification

Through the desktop application, a trader can restrict the recipients of a manual targeted invitation notification to recipients that meet either or both of the following criteria, as described above:

- Executed against sender
- Invited the sender.

Targeted invitations not available where a match or broker block opportunity exists

A trader can only create a manual targeted invitation based on an unmatched indication. A trader cannot create a manual targeted invitation or receive a targeted invitation notification on a stock where the trader has a matched indication in the Liquidnet negotiation system or has received notification of a broker block opportunity in Liquidnet H2O.

Hours of availability

A trader can only create a targeted invitation during the regular trading hours of the primary listing market for the applicable country.

Order details for a targeted invitation

For any targeted invitation, a sending trader must specify the following:

- *Quantity.* The quantity of a manual targeted invitation order defaults to the trader's working quantity on the indication. Quantity cannot be greater than the working quantity on the indication and cannot be less than the default minimum order size for manual targeted invitations, as set forth in the next bullet.

- *Minimum order size.* The minimum order size for a manual targeted invitation order in Canadian equities is the lesser of 25,000 shares and 15% of ADV.

- *Minimum execution size.* The default minimum execution size for a manual targeted invitation order in Canadian equities is the minimum matching and negotiation size for the region, as set forth in Section 7.03. The minimum execution size for a manual targeted invitation order cannot be greater than the working quantity on the indication and cannot be less than the minimum matching and negotiation size, as set forth in Section 7.03.

- *Limit price.* At the time that a manual targeted invitation is first sent, the limit price specified by a sender must be at or above the current mid-price, in the case of a buy targeted invitation, or at or below the current mid-price, in the case of a sell targeted invitation.

- ***Maximum number of recipients.*** A sender can select a maximum number of recipients for a manual targeted invitation notification. Where the number of qualifying recipients exceeds the maximum number of recipients specified by the sender, Liquidnet prioritizes the recipients based on pre-set criteria, as described below.

- ***Time-in-force.*** A sender must specify a time-in-force for a manual targeted invitation, which cannot be less than one minute. A targeted invitation expires upon the earlier of (i) expiration of the specified time-in-force, and (ii) the end of the current trading day. A trader may cancel a manual targeted invitation prior to the expiration of the specified time-in-force period. Expiration (or cancellation) of a manual targeted invitation results in the expiration (or cancellation) of the applicable targeted invitation notification and order. Liquidnet may terminate a Member's participation in manual targeted invitation functionality based on repeated cancelations. A trader can elect to have a manual targeted invitation order automatically cancelled when all recipients have dismissed the targeted invitation notification.

Prioritization of recipients

Where the number of qualifying recipients exceeds the maximum number of recipients specified by the sender, Liquidnet prioritizes the recipients based on a set of prioritization rules that Liquidnet may update from time-to-time. Liquidnet maintains and provides to Members upon request the details regarding these prioritization rules. These prioritization rules take into account the reason why the recipient received the notification (for example, based on having an opposite-side indication transmitted to Liquidnet), whether the recipient has a current indication or order transmitted to Liquidnet, the most recent time period during which the recipient had an indication or order, and similar factors.

Notification to sender

A sender is notified if there are no qualifying recipients for a manual targeted invitation.

Receiving a targeted invitation notification

A targeted invitation notification is displayed to a qualifying Member through the Liquidnet desktop application or to a qualifying customer through its order or execution management system (EMS), subject to Liquidnet and the EMS provider having implemented this functionality for the specific EMS. The notification includes the targeted invitation display amount, which is the greater of (i) the minimum execution size designated by the sender, and (ii) the minimum order size for targeted invitations in the applicable region, as set forth above, but the recipient must take an action through the desktop application to view the display amount. The size of a targeted invitation order can be greater than the targeted invitation display amount A recipient is further made aware through the Liquidnet desktop application or its EMS, as applicable, when a targeted invitation expires.

A qualifying Member in APAC, EMEA, LATAM or the US can also request that Liquidnet send targeted invitations to the Member's EMS (subject to implementation of this functionality for the

specific EMS) in addition to sending targeted invitations to the Member through the Liquidnet desktop application. In such cases, a Member may receive targeted invitations through its EMS even when not logged into the Liquidnet desktop application.

If the limit price of a manual targeted invitation is not executable at a specific time based on the current market and the sender's price constraint and is still not executable on that basis after a configured period of time, the system provides the sender a notification to either adjust his or her limit price for the targeted invitation or cancel the targeted invitation.

Responses by recipient

A trader a Member firm has the following two options upon receipt of a targeted invitation notification through the Liquidnet desktop application:

- Notify the sender that the recipient is interested and request more time to respond to the targeted invitation
- Dismiss the notification.

A trader at a customer firm does not have these options.

If a trader at a Member firm dismisses a notification in a symbol, the trader cannot receive another targeted invitation notification for that symbol for the rest of that trading day, but the trader can send a targeted invitation in that symbol.

A recipient at a Member or customer firm can take any other action permitted by these Trading Rules for that participant category, including the creation of an opposite-side indication or order, as applicable.

Information received by the sender

A sender of a manual targeted invitation is notified when a recipient indicates interest and requests more time. If a trader elects to have his or her manual targeted invitation order automatically cancelled when all recipients have dismissed the targeted invitation notification, the trader can determine that all of the targeted invitation notifications sent by the sender have been dismissed by any recipients.

Trader grouping for targeted invitations

If a Member has grouping enabled, a trader, through the Liquidnet desktop trading application, can configure himself or herself to receive a targeted invitation notification based on another trader's data. This configuration is separate from the configuration to access another trader's indications and orders, as described in Section 7.08.

Section 6.05 **Editing a manual targeted invitation**

Through the desktop application, a trader can edit any of the following fields of a manual targeted invitation:

- Quantity
- Minimum execution size
- Limit price.

Liquidity Watch and surveillance for targeted invitations

Liquidnet can disable targeted invitations functionality for a Member or customer in accordance with Liquidnet's Liquidity Watch and surveillance processes, as set forth in Section 12.11.

Section 6.06 **Automated targeted invitations**

Types of orders

Liquidnet makes available targeted invitation functionality for Liquidnet-only and LN auto-ex orders and for the following types of Liquidnet algo orders: Liquidnet Dark; Barracuda; VWAP; TWAP; POV (including Dynamic POV) and IS. This functionality applies to these types of Liquidnet orders, whether firm or conditional. Liquidnet refers to this functionality as "automated targeted invitations".

As noted above in Section 6.01, Liquidnet has introduced automated targeted invitation functionality for LP resting orders, whether firm or conditional, and LP algo orders. This functionality applies to LP orders in APAC, EMEA, LATAM and US equities, except, for EMEA equities, this functionality is not available for conditional LP resting orders. Availability of automated targeted invitations for LP resting orders and LP algo orders in Canadian equities is subject to prior approval by the Canadian regulators.

Applicability of description relating to manual targeted invitations

The provisions of Section 6.04 relating to manual targeted invitations are also applicable to automated targeted invitations, except as otherwise set forth in this Section 6.07.

Automated targeted invitations from low-touch algo orders from customers

For low-touch orders (whether from algo or automated routing customers), subject to the customer's consent (as described below), Liquidnet can send targeted invitation notifications to Members and customers that are qualifying recipients. Liquidnet applies the following default configurations for automated targeted invitations:

- Maximum number of recipients – 10
- Look-back period – 20 days

- Minimum order size – same as minimum order size for manual targeted invitations, as set forth in Section 6.04.

For any algo order, Liquidnet can send up to one targeted invitation per day to any eligible recipient. If one or more prior recipients have dismissed a targeted invitation, Liquidnet can send a subsequent targeted invitation to additional recipients as long as the total of those recipients and prior recipients who have not dismissed the targeted invitation does not exceed the sender's maximum number of recipients. In other words, the number of targeted invitations outstanding at any time cannot exceed the sender's maximum number of recipients.

Participants can modify the default configurations for automated targeted invitations in the same manner that Members can modify the default configurations for manual targeted invitations.

The minimum execution size for an automated targeted invitation is the minimum execution size for the underlying algo order.

Any configuration above for a participant applies to all automated targeted invitations sent by the participant.

Automated targeted invitations from high-touch orders from customers

For high-touch orders, subject to the customer's consent (as described below), a Liquidnet trader can elect to authorize Liquidnet to send targeted invitation notifications for a particular order. Liquidnet applies the same default configurations, and permits adjustment of configurations, as described in the section above on automated targeted invitations from low-touch algo orders from customers.

Automated targeted invitations for Member orders created through the desktop application

For orders created by a Member through the desktop application (whether algo or LN auto-ex orders), the Member (through the consent process described below) can authorize Liquidnet to send targeted invitation notifications to other participants that are qualifying recipients. Liquidnet applies the same default configurations, and permits adjustment of configurations, as described in the section above on automated targeted invitations from low-touch algo orders from customers.

Automated targeted invitations from LP orders

For orders transmitted by an LP (whether algo or resting orders), the LP (through the consent process below) can authorize Liquidnet to send targeted invitation notifications to Members that are qualifying recipients (and have elected to interact with LP resting orders). Liquidnet applies the same default configurations, and permits adjustment of configurations, as described in the section above on automated targeted invitations from low-touch algo orders from customers. To

avoid "flickering" of targeted invitation notifications, Liquidnet may require that an LP resting order remain in-force for a configurable period of time before allowing a targeted invitation notification associated with that order to be sent to Members.

Consent to sending of automated targeted invitations

Liquidnet will not send targeted invitations for a participant order unless consented to by the participant. The consent process depends on the method through which a participant transmits the associated order, as follows:

- *Members (desktop application).* Liquidnet is not authorized to send targeted invitations from an algo order or LN auto-ex order created by a Member through the desktop application unless the Member authorizes Liquidnet to do so through a checkbox in the order screen for the particular order. This checkbox is unchecked by default unless the Member specifically requests that Liquidnet configure the Member to have the checkbox checked by default.

- *Customers (low-touch and high-touch orders).* Liquidnet is not authorized to send automated targeted invitations from an algo order from a customer unless the customer consents in writing. The customer's written consent can authorize Liquidnet to send automated targeted invitations from all of the customer's orders, unless otherwise instructed by the customer for a specific order (a "blanket authorization"), or authorize Liquidnet to send automated targeted invitations on an order-by-order basis where specifically consented to by the customer for the order (an "order-by-order" authorization). Written consent includes consent by email or IM.

  The order-by-order authorization is a two-step process: first, the customer must consent in writing to order-by-order authorization; second, the customer must provide authorization for the specific order. The authorization for the second step can be provided through a field or tag in a FIX message or other method as agreed between Liquidnet and the customer.

  If a customer has provided a blanket authorization, Liquidnet is authorized to send automated targeted invitations from any order from the customer unless the customer through a field or tag in a FIX message or other method as agreed between Liquidnet and the customer instructs Liquidnet not to send automated targeted invitations from the order.

- *Liquidity partners (algo and resting orders).* Liquidnet is not authorized to send automated targeted invitations from an LP algo or resting order unless the LP consents in writing. The LP's written consent can authorize Liquidnet to send automated targeted invitations from all of the LP's algo or resting orders, unless otherwise instructed by the LP for a specific order (a "blanket authorization"), or authorize Liquidnet to send automated targeted invitations on an order-by-order basis where specifically consented to by the LP for the order (an "order-by-order" authorization). Written consent includes consent by email or IM.

The order-by-order authorization is a two-step process: first, the LP must consent in writing to order-by-order authorization; second, the LP must provide authorization for the specific order. The authorization for the second step can be provided through a field or tag in a FIX message or other method as agreed between Liquidnet and the LP.

If an LP has provided a blanket authorization, Liquidnet is authorized to send automated targeted invitations from any resting and/or algo order from the LP unless the LP through a field or tag in a FIX message or other method as agreed between Liquidnet and the LP instructs Liquidnet not to send automated targeted invitations from the order.

Guidelines for determining when to send an automated targeted invitation

Liquidnet does not automatically send an automated targeted invitation from an algo order that can route to external venues. Instead, Liquidnet's routing systems estimate the quantity that the algo order will execute externally over a period of time and the expected remaining quantity for the algo order over that time period. If the expected remaining quantity for the algo order after a period of time determined by Liquidnet will be below the minimum order size for targeted invitations for the applicable region, Liquidnet will not send an automated targeted invitation. In addition, Liquidnet's ATS systems can (i) delay the sending of automated targeted invitations for an algo order that can route externally, to allow for internal block executions. These guidelines for sending targeted invitations only apply if the participant has consented to Liquidnet sending automated targeted invitations from the participant's algo orders.

Automated targeted invitations from automated routing customer algo orders

Liquidnet can send automated targeted invitations from orders from automated routing customers subject to the following conditions:

- Liquidnet will only send a targeted invitation if the order size is 50,000 shares or greater and the order has been resting in Liquidnet for at least six minutes.
- For all conditional orders where targeted invitations are sent and the contra accepts, the automated routing customer must maintain a firm-up rate of 95% or higher. If the customer does not maintain this firm-up rate, Liquidnet will discuss this issue with the customer; if, after discussion, the customer is still unable to maintain this firm-up rate, Liquidnet will no longer send automated targeted invitations from orders on behalf of the customer.
- The automated routing customer must maintain an average of six minutes or higher for how long its orders continue to rest in Liquidnet after Liquidnet has sent a targeted invitation. If the customer does not maintain this average, Liquidnet would discuss this issue with the customer; if, after discussion, the customer is still unable to maintain this average, Liquidnet will no longer send automated targeted invitations from orders on behalf of the customer.

Liquidnet has established these conditions for the benefit of the recipients of these targeted invitations.

Cancellation of automated targeted invitations

Liquidnet will cancel any targeted invitation notifications for an order upon the occurrence of any of the following:

- *Remaining order size.* The sender's remaining order size is below the minimum order size for targeted invitations for the applicable region, as set forth in Section 6.04. For manual targeted invitations, the system will also cancel the targeted invitation order. For automated targeted invitations, cancellation of the targeted invitation notification does not affect the parent order.

- *Cancellation of associated order.* The participant cancels the associated order, and, in the case of an order other than a high-touch order, a period of three seconds has elapsed.

- *Expiration of associated order.* The associated order expires.

Resending of a targeted invitation after a cancel

Liquidnet can resend a targeted invitation after a cancel subject to the conditions set forth above except that the six-minute period described above runs from the most recent cancel of the targeted invitation.

Notifications to senders of automated targeted invitations

A sender of an automated targeted invitation from an order created through the Liquidnet desktop application is notified of the following through the Liquidnet desktop application:

- Whether or not there are any qualifying recipients
- When a recipient requests more time
- When all recipients have dismissed the targeted invitation notification (this notification will no longer be available starting with Liquidnet version 5.21).

A sender of an automated targeted invitation from an order not created through the Liquidnet desktop application is not notified of the items above, but Liquidnet can provide a report to buy-side senders on T+1 as to whether or not there were any qualifying recipients for any such targeted invitations, as described in Section 11.09.

Targeting criteria

All targeting criteria described in Section 6.04 apply to targeted invitations described in this Section 6.07.

Receiving automated targeted invitations from LP orders

A Member or customer eligible to receive targeted invitations only receives notification of automated targeted invitations from LP resting orders and LP algo orders if the Member or customer has both (i) elected to interact with LP resting orders and (ii) elected to receive targeted invitations. A trader at a Member or customer firm that has elected to receive targeted invitations and interact with LP resting orders may elect not to receive targeted invitation notifications from LP orders.

A notification of an automated targeted invitation from an LP resting order or LP algo order indicates to the recipient that it is a "broker targeted invitation".

Section 6.08 **VHT liquidity opportunities**

When a Member has an unmatched indication in the pool, Liquidnet will notify such Member through the desktop application when one of the following has occurred regarding the same symbol as the unmatched indication:

- There was a Liquidnet execution in the symbol earlier that trading day reported through the desktop application and the Member has also opted to have its intra-day Liquidnet executions reported through the Liquidnet desktop application (for non-attributed trades)
- The Member had a matched indication (active or passive) in the symbol earlier that trading day
- The Member failed to respond to a targeted invitation notification in the symbol earlier that trading day
- The Member received an invitation to negotiate in the symbol earlier that trading day
- The Member had a Liquidnet execution in the symbol earlier that trading day.

Such notification is referred to herein as a "VHT liquidity opportunity icon" or "Raindrop icon" and will be in the form of an alert icon displayed next to the symbol on the desktop application. Display of a Raindrop icon is intended to prompt a Member to create a targeted invitation for that unmatched indication.

In any of the circumstances outlined above, a Member's information will not be used by the Liquidnet system to trigger display of a Raindrop icon unless the Member is also opted-in to receive targeted invitations.

Part VII.   Negotiation functionality

Section 7.01 **ATS**

Negotiation functionality for Canadian equities is provided through the Liquidnet Canada ATS.

Section 7.02 **Indication matching functionality**

Election to participate

Members can elect whether or not to participate in Liquidnet's negotiation functionality. If a Member elects to participate, Liquidnet the broker transmits indications received from the Member to Liquidnet's indication matching engine.

Contras

When a trader has an indication in Liquidnet that is transmitted to Liquidnet's indication matching engine, and there is at least one other trader with a matching indication on the opposite side (a "contra-party" or "contra"), Liquidnet notifies the first trader and any contra. A matching indication (or "match") is one that is in the same equity and instrument type and where both the trader and the contra are within each other's minimum tolerance quantities (see Section 7.03 below). Members cannot be matched with opposite side orders having the same Member ID.

Setting indications of liquidity to outside

A trader may set an indication to "outside," which makes the indication ineligible for Liquidnet's indication matching engine. Indications that are eligible for Liquidnet's indication matching engine are considered "in the pool."

Upon request, Liquidnet can configure a Member's indications to be automatically set to outside if the Member does not take an action on a match of the indication within a specified period of time after commencement of the match, as directed by the Member. Liquidnet now implements this configuration with an exception where the Member previously executed with one or more of the contras on the indication.

Price and time alerts

When a trader sets an indication to outside, the trader can set a price alert. The alert notifies the trader when the price set for the indication is back in the market.

For all traders who have upgraded to Liquidnet version 5.15 or higher, when a trader sets an indication to outside, the trader may also create an alert to prompt the trader to return the indication toavailable to match status in either of the following scenarios:

- after a set period of time, e.g., ten (10) minutes

- at a specified market price offset, e.g., 35 basis points below the current best bid for a buy indication or 35 basis points above the current best offer for a sell indication.

The default time period and default price offset for such alerts are configurable by the trader.

Matches

Liquidnet determines matches based on the security IDs provided by each Member. Liquidnet only matches buy and sell indications for a security if they are of the same instrument type.

Matching indications with OMS limits - during market hours

During regular trading hours in the applicable market, indications with OMS limits are eligible for matching where the limit on a buy indication is at or above the applicable reference price and the limit on a sell indication is at or below the applicable reference price. The default reference price for regular trading hours is the bid (in the case of a buy indication) and the offer (in the case of a sell indication), but a Member can request for one or more instrument types that Liquidnet set the reference price as the mid-price.

Matching indications with OMS limits – pre-open and market open

Liquidnet allows matching of indications pre-open or at market open for Canadian equities based on the following reference prices in the applicable stock:

- If there is a valid best bid and best offer in the market, the best bid (in the case of a buy indication) and the best offer (in the case of a sell indication)
- If a valid best bid and best offer is not available, last sale price
- If a valid best bid and best offer and last sale price are not available, most recent closing price.

Matching indications with OMS limits – after the close

Liquidnet only allows matching of indications for Canadian equities after the close if the closing price is within each side's OMS limit.

Match pop-ups

In addition to a standard match notification, the system provides a larger alert to the trader on each side upon commencement of a match (also referred to as a "match pop-up"). A trader can close a match pop-up at any time. A trader also can request that Liquidnet disable all match pop-ups for the trader from displaying upon the commencement of a match. Through internal tools, Trade Coverage personnel can request the refresh of a match pop-up, which has the following effect: (i) if the trader has previously closed the pop-up for that match, the system will send another match pop-up to the trader; and (ii) if the trader has not previously closed the pop-up and the pop-up is no longer visible to the trader because it is hidden behind another screen on the trader's desktop, the system will attempt to make the pop-up visible to the trader.

Match break notification

The system notifies both sides if a match breaks. If a trader has Liquidnet version 5.9 or higher , the system further reports to the trader if a match break results from the contra changing the contra's indication to outside status.

Match breaks due to market movement

Given the frequency of price movements during market hours, when a match where either side has a limit would otherwise break due to market movement, Liquidnet delays breaking the match for a short time period configurable by Liquidnet (currently set at two (2) seconds) to prevent "flickering" of matches. If the market does not return to a level within this period that would permit matching, the system will break the match.

Section 7.03 Minimum quantity for matching and negotiation (tolerance)

Minimum match quantity

Liquidnet does not match two contra-side indications unless each indication meets the following minimum quantity requirement: either (i) greater than 5000 shares and greater than CAD$30,000 in value, or (ii) greater than CAD$100,000 in value.

The minimum quantity for matching is in addition to the current tolerance conditions that Liquidnet applies. For purposes of this Section 8.03, "ADV" means the average daily trading volume in the stock for the 30 prior trading days.

Tolerance

A trader is matched with a contra only if the working quantity of each trader is at or above the other trader's minimum tolerance quantity (or "tolerance"). A trader's tolerance on an indication represents the minimum working quantity in shares that a contra must have for the trader to be matched against that contra. Tolerance is intended to protect a trader from being matched and negotiating with a contra whose working quantity is too small.

A trader's tolerance on an indication equals the lowest of the following three quantities:

- *Working quantity tolerance.* The trader's working quantity on the indication multiplied by the trader's working quantity tolerance percentage.
- *ADV tolerance percentage.* The ADV of the stock multiplied by the trader's ADV tolerance percentage.
- *Default maximum tolerance.* The default maximum tolerance for the applicable region, as described below.

Working quantity and ADV tolerance percentages

Through the Liquidnet desktop application, a trader can adjust his or her default working

quantity tolerance percentage or default ADV tolerance percentage, or each of them, to a different percentage, ranging from 1% to 25%. The default tolerance percentages apply to all of a trader's indications, unless the trader overrides the defaults for a specific indication (as described below). For new Members, these default working quantity and ADV tolerances are set at 3% for each trader.

A trader can also request that Liquidnet disable ADV tolerance, in which case ADV tolerance would not apply to the trader's indications.

Maximum tolerance

Members have the following options with respect to maximum tolerance:

- For each country, a Member can determine whether a maximum tolerance should be applied.
- If a Member determines that a maximum tolerance should be applied for a country, the Member can choose to keep the default maximum tolerance set by Liquidnet, or the Member can choose to increase or, if applicable, decrease the maximum tolerance.
- If the Member wants to change the default maximum tolerance for a country, the Member can choose to set the maximum tolerance based on number of shares or based on principal value.

A Member should contact its Sales coverage or Member Services for a report of its maximum tolerances, if any, for each country, and to request any modifications, or to request that a maximum tolerance be enabled or disabled. Maximum tolerances are set at the Member level.

For Canadian equities, if a trader is set to the default maximum tolerance, this is the equivalent of not applying any tolerance other than the minimum quantity for matching, as provided in this Section 7.03.

Adjusting tolerance for an indication

A trader can adjust his or her tolerance for an indication through the Liquidnet desktop application by taking any of the following actions for the indication:

- Adjusting the tolerance share number
- Adjusting the tolerance principal value
- Adjusting the working quantity tolerance percentage
- Adjusting the ADV tolerance percentage.

If the trader adjusts any of these parameters, the system will use that parameter as the trader's tolerance, except that the tolerance cannot exceed 25% of the trader's working quantity on the indication or 25% of ADV (unless the trader has disabled ADV tolerance for all indications). If a trader adjusts a parameter and the adjustment does not cause the trader's adjusted tolerance value to exceed 25% of working quantity (and 25% of ADV, where applicable), and a subsequent execution or other event causes the adjusted tolerance value to exceed 25% of the trader's working quantity, the system will compute the trader's tolerance based on his working quantity

(and, where applicable ADV) tolerance percentages that were in place prior to the tolerance adjustment.

Examples of how tolerance works

The following scenarios illustrate how the rules above apply for an indication.

Scenario 1

- Member A has set a working quantity percentage of 10% and an ADV percentage of 10%.
- Trader A works for Member A and does not override the percentages set by his firm.
- Trader A has an indication for 800,000 shares in a Canadian equity.
- The ADV in the stock is 700,000 shares.
- Member A has instructed Liquidnet not to apply a maximum tolerance for Canadian equities.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 70,000 shares:
    - Working quantity (800,000 shares) x working quantity percentage (10%) = 80,000 shares
    - ADV (700,000 shares) x ADV percentage (10%) = 70,000 shares
    - Lesser of working quantity tolerance (80,000 shares) and ADV tolerance (70,000 shares) = 70,000 shares.

Scenario 2

- Same as Scenario 1, except that Member A applies the default maximum tolerance for Canadian equities, which is 35,000 shares.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 35,000 shares:
    - Working quantity (800,000 shares) x working quantity percentage (10%) = 80,000 shares
    - ADV (700,000 shares) x ADV percentage (10%) = 70,000 shares
    - Maximum tolerance of 35,000 shares
    - Least of working quantity tolerance (80,000 shares), ADV tolerance (70,000 shares) and maximum tolerance (35,000 shares) = 35,000 shares.

Scenario 3

- Same as Scenario 1, except that Trader A has disabled ADV tolerance through the Liquidnet desktop application.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 80,000 shares:
    - Working quantity (800,000 shares) x working quantity percentage (10%) = 80,000 shares
    - ADV tolerance – not applicable
    - Maximum tolerance – not applicable.

Scenario 4

- Same as Scenario 2, except that Trader A uses the desktop application to decrease his share tolerance from 35,000 to 30,000 shares.
- **Result:** Trader A will only be matched with a contra if the contra has a working quantity of 30,000 shares. Trader A's change overrides the other tolerance parameters.

Scenario 5

- Same as Scenario 2, except that Trader A uses the desktop application to increase his share tolerance from 35,000 to 200,000 shares.
- **Result:** The system will only allow Trader A to increase his tolerance to 175,000 shares.
  - o Working quantity (800,000 shares) x maximum working quantity percentage (25%) = 200,000 shares
  - o ADV tolerance (700,000 shares) x maximum ADV tolerance percentage (25%) = 175,000 shares
  - o Maximum tolerance – overridden.
  - o Lesser of working quantity tolerance (200,000 shares) and ADV tolerance (175,000 shares) = 175,000 shares.

Minimum match quantity requirement

In all cases, a match only occurs if each side meets the minimum match quantity requirement for the applicable region, as described above.

Adjusting tolerance during a match

A trader can decrease, but cannot increase, his or her tolerance during a match.

Tolerance after an initial trade is executed

After an initial trade is executed on an indication, if the trader has any residual amount left to trade on that indication, tolerance for the indication will vary depending on which of the following two configurations, applicable to all contras, are implemented for the Member:

- The trader's tolerance will be reset to the applicable minimum match quantity for the symbol
- The trader's original tolerance settings will continue to apply.

A Member can change this configuration at any time upon notice to Liquidnet.

Section 7.04 **Matching on placed orders**

Member firms that meet certain criteria may be configured to match with other Liquidnet contras based on a quantity that includes shares already placed at other trading venues. Liquidnet monitors Members with this configuration for usage in alignment with Member community protocols.

A Member with this configuration must manually update the OMS to free up shares placed at the other trading venues before submitting or accepting a bid or offer in a Liquidnet negotiation or creating a Member order.

Members that are configured to match on placed orders can set filters so they do not match when they have executed a specified percentage of the parent OMS order away from Liquidnet that day and the remaining quantity on the order is below a specified percentage of the 30-day historical ADV for the stock.

Section 7.05 **Indication status**

Indications may be either "available to match" or "outside"

Currently, an indication that is in the pool can have a status of passive or active; and. a trader can indicate that he is ready to receive an initial proposal to negotiate by changing the status of his indication from passive to active. During Q1, 2022, Liquidnet began piloting a version of the desktop application where active and passive indication status have been consolidated into a single "available to match" status, and all indications received by Liquidnet are, by default, available to match with other available contras in the pool (unless otherwise configured for a Member/trader). Once matched with an available contra, a trader participating in this pilot can send or receive an initial proposal to negotiate. If a trader changes the status of an indication to "outside", that indication will not match with other available contra indications.

During Q2 2022, Liquidnet plans to roll-out this simplified version of the desktop application to all Members, and these Trading Rules have been updated to reflect this planned change, i.e., indications are described herein as either "available to match" or "outside." Members who do not upgrade to a version of the Liquidnet software that supports this change may continue to see their indications in the pool as either active or passive

Manually changing status from outside

A trader can manually change the status of an indication from outside to available to match.

Carrying over status to the next trading day

Liquidnet makes available to Members a configuration where the status of the Member's indications (available to match or outside) are carried over to the next trading day.

Defaulting indications to outside

Liquidnet makes available to Members various configuration rules that default specific types of indications to outside. These rules can include, for example, defaulting to outside: indicationswith market-on-open instructions; indications with market-on-close instructions; or indications that are part of a portfolio or program list.

Trader availability setting

For all traders who have upgraded to Liquidnet version 5.15 or higher, Liquidnet offers an optional "availability" setting to traders. Any trader who elects this configuration is classified as "Available" upon login to the desktop application. If a trader sets his or her status to "Not Available", and the trader is being covered by one or more "Available" grouped traders (as disclosed in Section 7.08), the trader will be prompted to confirm that any matches for indications assigned to the "Not Available" trader will be covered by the "Available" grouped trader(s) before his or her status is changed to "Not Available".

If the trader who sets his or her status to "Not Available" is not being covered by any other "Available" grouped traders, the trader will be prompted to confirm the following before his or her status is changed to "Not Available":

- Any existing matches for indications assigned to the "Not Available" trader will be broken
- Any automate negotiation orders created by the "Not Available" trader will be canceled
- Any other orders assigned to or created by the "Not Available" trader will remain open and can be paused separately.

New matches will not form for indications assigned to the "Not Available" trader (assuming no alternative coverage grouping). When such trader sets his or her status back to "Available", any indications assigned to the trader will once again be available for matching.

If a match is broken due to a trader's status changing to "Not Available", the trader's sales coverage is notified that the broken match resulted from such change in availability.

Section 7.06 **Prioritization of contras**

General priority rules

The system prioritizes available contras based on time , except that the contra that represents the LPC (see Section 8.10) is prioritized ahead of other contras.

These general priority rules are subject to the exceptions set forth below in this Section 8.06.

Exceptions where sender cannot execute against a contra

The following exceptions apply where a trader has Liquidnet version 5.9 or higher and the trader submits a negotiation proposal from a match pop-up:

- If the system determines that the quantity of the sender's proposal is below the minimum quantity of an LPC contra, the system can transmit the sender's proposal to a lower priority contra instead of the LPC.
- If the system determines that the sender has a limit price that is more restrictive than the mid-price and a higher priority contra has a mid-price or better order instruction, the system can transmit the sender's proposal to a lower priority contra who does not have a mid-price or better order instruction.

Previous mid-peg invitation missed or declined by a trader

If a mid-peg invitation sent by a trader (Trader 1) is above the tolerance of a contra (Trader 2) and missed or declined by Trader 2 (or expires), (i) Trader 1 will be the only available contra displayed to Trader 2 for a period of 30 seconds (and, thus, the only contra to whom Trader 2 can send an invitation during that period), and (ii) a trader at another Member firm will not see Trader 2 as an available contra during this 30-second period (and, thus, cannot submit a proposal to Trader 2 during this 30-second period). The 30-second period is reduced to 10 seconds when Trader 2 declined the invitation from Trader 1 and specified the reason as "Explicit Price Only."

Section 7.07 **Negotiations**

Starting a negotiation; submitting an initial proposal

When the system notifies a trader of an available contra for a security, the trader can start a negotiation for that security by specifying a price and negotiation quantity and submitting a bid or offer. This is also referred to as "submitting an initial proposal."

When a trader submits an initial proposal in response to a match, he or she is making a firm bid or offer. A trader can only submit a proposal on any match to one contra at a time.

Submitting an initial proposal from the match pop-up screen or the negotiation room

A trader can submit an initial proposal from the match pop-up screen or from the negotiation room. If a trader does not have a match pop-up displayed for a match, a trader can open the negotiation room or open the match pop-up screen to submit an initial proposal.

Negotiation quantity

"Negotiation quantity" is the quantity set by a trader when he makes a bid, offer, counter-bid or counter-offer or agreed to by a trader when he accepts a bid, offer, counter-bid or counter-offer. A trader's negotiation quantity defaults to his working quantity at the start of a negotiation, but the trader can modify his negotiation quantity before submitting a bid, offer, counter-bid, or counter-offer.

Bids and offers (proposals)

Liquidnet negotiations are anonymous one-to-one negotiations through which traders submit bids and offers to each other. The first bid or offer in a negotiation is submitted when one trader submits an initial proposal. Subsequent bids and offers may be submitted as counter-bids or counter-offers in the negotiation. "Bids and offers" are sometimes referred to as "proposals".

A trader (or a group of traders, as described below) may only enter into a negotiation with respect to a specific indication with one contra at a time.

Prices specified in proposals are limit prices. Proposals in Liquidnet negotiations are firm orders.

Prior to starting a negotiation, submitting a proposal, or taking any other action in a negotiation, a trader should confirm that the price and quantity and other information relating to that action accurately reflect the trader's and the Member's intended action. In particular, the trader should confirm that the proposal price is within any limit price set by the Member and within any price and quantity limits set in the Member's OMS. Traders should be aware that Liquidnet does not

update available quantity or working quantity for changes in OMS order quantity once a negotiation has commenced.

Priced, mid-peg and closing price proposals

There are three types of negotiation proposals: priced, mid-peg and closing price. A priced proposal has an associated price displayed to the contra and can only be executed at the indicated price. A mid-peg proposal does not have an associated price. A mid-peg proposal, if accepted, is executed at the mid-price at the time of execution. A closing price proposal, if accepted, is executed at the closing price for the stock. The closing price for a stock is determined by reference to the applicable market data feed sourced by Liquidnet, as described in Section 12.03 below. A closing price proposal cannot be executed if the execution price is more than 1.5% away from the mid-point as of the time of execution. Closing price proposals for Canadian equities are subject to the additional condition that a closing price proposal cannot be executed if the closing price is outside the national best bid and offer as of the time of execution.

Prior to the open of trading, only priced proposals can be submitted during a negotiation. During the regular trading session in the primary market, only priced and mid-peg proposals can be submitted during a negotiation. For Canadian equities, after the close of the regular trading session in the primary market, only closing price proposals can be submitted during a negotiation.

Responding to an initial proposal

When a trader submits an initial proposal, the system displays a match pop-up to the trader at the contra Member firm notifying the contra of the initial proposal. Upon receipt of the initial proposal, the trader at the contra Member firm can adjust his or her quantity (the negotiation quantity) and also take one of the following actions:

- Seek to execute against the proposal
- Submit a counter-proposal
- Decline the proposal.

However, a contra cannot submit a counter-proposal in response to a mid-peg invitation.

Chat

Traders can send messages to each other during a negotiation via the chat feature. A chat message does not constitute a proposal, acceptance, cancellation or similar event. A trader cannot send a chat message along with or in response to a mid-peg proposal.

Providing reason for a decline

When declining a proposal (including a mid-peg proposal), a trader must specify a decline reason. Liquidnet provides default reasons; traders can modify the list of default reasons through the settings area of the desktop application.

Canceling a proposal

After a trader submits a proposal, he or she can cancel that proposal by either:

- Clicking cancel, to cancel the proposal; or
- Clicking end, to terminate the negotiation (in this situation, we encourage the trader to send a chat notice to the contra).

If a trader cancels a proposal, he or she can resubmit another proposal.

Counter-proposals

A trader can submit a counter-proposal in response to a priced proposal by specifying a negotiation quantity and price (or mid-peg) and submitting. If a trader submits a counter-proposal, the trader receiving the counter-proposal has the same options as above upon receipt of an initial proposal.

Declining a proposal or ending a negotiation

If a trader declines a proposal or ends a negotiation, it terminates the current negotiation.

Time limit

There is a 30-second time limit for responding to an initial proposal and a 20-second time limit for responding to a subsequent proposal in a negotiation. If an initial proposal is not accepted by a contra within 30 seconds, the initial proposal expires. If a subsequent proposal in a negotiation is not accepted by a contra within 20 seconds, the proposal expires.

Either trader can submit a proposal in a negotiation after one of the traders has failed to respond to a proposal within the applicable time limit. After a time expiration, if the two traders submit a proposal at the same price and within each other's tolerances, and prior to either trader receiving the other trader's proposal, the second proposal received by the Liquidnet back-end software will be treated as an accept.

The timer for any proposal starts when the Liquidnet back-end software confirms that the contra has received the proposal. Any acceptance, to be effective, must be received by the Liquidnet back-end software prior to the expiration of its 30-second (or 20-second) clock.

Proposals significantly away from the best bid and best ask

Liquidnet allows traders to trade outside the current best bid and best ask (subject to certain price restrictions required by law as described below), but Liquidnet may require a trader who submits a proposal that is significantly outside the current best bid and best ask to specifically confirm the proposal.

Minimum tolerance quantities during negotiations

A trader specifies a negotiation quantity each time he or she submits a proposal. If a trader submits a negotiation quantity that is below the trader's own minimum tolerance for the associated indication, Liquidnet reduces the trader's tolerance for the indication to this negotiation quantity.

If the negotiation quantity submitted by a contra is below a trader's minimum tolerance, Liquidnet notifies the trader that the contra's proposal is below the trader's tolerance. Commencing with Liquidnet version 5.9, this notification will be provided by displaying to the trader the possible execution sizes as the range between (i) the minimum execution size for the applicable market and security, and (ii) the trader's minimum tolerance for the indication.

The contra then has the same options as he would have in response to any other proposal.

A trader's tolerance during a negotiation is the product of his working quantity and tolerance percentage. For example, if a trader has a working quantity of 100,000 shares and a tolerance percentage of 20%, his tolerance for the negotiation is 20,000 shares.

A trader can change his working quantity for an indication prior to a negotiation. When a negotiation starts, the working quantity is no longer updated upon a change in the OMS. A trader cannot change his available quantity for an indication.

Crossed proposals

If a trader submits a bid during a negotiation that is higher than the contra's offer, or submits an offer during a negotiation that is lower than the contra's bid, the system will execute the order at the contra's bid or offer price, as applicable.

Acceptances

A trader can accept a contra's proposal by clicking accept. A trader also can accept a proposal by submitting the same price as the price of the contra's proposal (as long as the trader's negotiation quantity is within the contra's tolerance).

Accepts after changing quantity

If a trader accepts after changing his negotiation quantity, it is treated as an accept if the trader's negotiation quantity is still above the contra's tolerance, but is treated as a counter-proposal if the trader's negotiation quantity is below the contra's tolerance.

Imputed price constraint for accept of mid-peg proposal

When a trader accepts a mid-peg proposal:

- If the accepting trader is a buyer, Liquidnet imputes a price constraint of 30 basis points above the mid displayed to the trader when the trader clicks accept
- If the accepting trader is a seller, Liquidnet imputes a price constraint of 30 basis points below the mid displayed to the trader when the trader clicks accept.

Hard limits on submitting or accepting a negotiation proposal

If a Member has the protect OMS limit configuration enabled, the system does not permit a trader to submit or accept a negotiation proposal that is outside the trader's OMS limit. If a Member has the protect match limit configuration enabled, the system does not permit a trader to submit or accept a negotiation proposal that is outside the trader's match limit.

Liquidnet refers to the restrictions described in this sub-section as "hard limits" because a trader cannot override them.

Soft limits on acceptance of a negotiation proposal

Upon request, Liquidnet can configure a trader for any of the following alerts after a trader accepts a negotiation proposal:

- Alert that the execution price is outside the trader's OMS limit
- Alert that the execution price is outside the trader's match limit
- Alert that the execution price is outside the spread.

These alerts are soft alerts; a trade is not executed unless the trader confirms the acceptance after receipt of the alert and Liquidnet's back-end software records the confirmation. These soft alerts do not apply where a hard OMS or match limit applies.

The system also provides certain types of alerts prior to a trader accepting a negotiation proposal.

Limit price for mid-peg proposal sent during a negotiation; imputed limit price where trader does not set a limit price

When a Member provides a limit price in its OMS, Liquidnet applies that limit price to a mid-peg proposal sent by the Member during a negotiation. If the Member does not provide a limit price in its OMS, the Member can set a limit price for the associated indication through the Liquidnet desktop application (referred to as a "match limit"). In that case, Liquidnet applies the match limit to a mid-peg proposal sent by the Member during a negotiation. A trader can modify a match limit but not an OMS limit during a negotiation.

If the Member does not set an OMS limit or a match limit for an indication, Liquidnet imputes a limit price (as described in this sub-section) for execution of a mid-peg proposal. The constraints described in the preceding sub-section apply to the accepting trader; the imputed limit price described in this sub-section applies to the trader who submits a mid-peg proposal for acceptance by the contra where Liquidnet has not received an OMS limit price from the trader's OMS or a match limit.

This default limit price restricts a mid-peg proposal from being executed at a price that, in the case of a buy (or sell) proposal, is more than 35 basis points above (or below) the mid-point of the best bid and offer in the market as of the time that the submitter opened the negotiation room. Members can override the default limit price of 35 basis points for one or more countries and set a different limit price through the Liquidnet desktop application expressed as either of the following:

- Basis points from the mid-point as of the time that the submitter opened the negotiation room; or
- Cents from the best offer in the market (in the case of a buy order) or cents from the best bid in the market (in the case of a sell order) as of the time that the submitter opened the negotiation room.

In all cases, the minimum price increments of the applicable country (or the applicable class of securities within the country) would apply, such that if the imputed limit price above is not equal to a permitted increment, the imputed limit price would be adjusted to the following:

- In the case of a buy limit price, the lowest permitted price increment above that limit price, and
- In the case of a sell limit price, the highest permitted price increment below that price constraint.

A trader can modify a default limit price on an order-by-order basis, subject to complying with the price increment requirements of the applicable country (or class of securities of the country).

Priority and effectiveness of acceptances, cancellations, expirations and other negotiation events

The effectiveness of an acceptance, cancellation, or end request depends upon which event is first received by the Liquidnet back-end software and recorded in the Liquidnet database. Accordingly, a cancellation or end request is effective over an acceptance if the Liquidnet back-end software receives and records in the Liquidnet database the cancellation or end request prior to the receipt and recording of the acceptance; conversely, an acceptance is effective over a cancellation or end request if the Liquidnet back-end software receives and records in the Liquidnet database the acceptance prior to the receipt and recording of the cancellation or end request. An effective acceptance received and recorded as set forth above constitutes an executed trade in Liquidnet.

All proposals, cancels, modifications, counter-proposals, and acceptances are deemed effective when they are received and recorded by the Liquidnet back-end software, and are not effective until such time.

Execution quantity

When an acceptance is effective in accordance with the preceding section, a trade is executed for the lesser of the two parties' negotiation quantities, except that all negotiations are subject to a minimum execution quantity equal to the minimum match quantity set forth in Section 7.03 above. However, in the case of a continuing negotiation after a partial execution, the minimum execution quantity for negotiations will be the lesser of (i) the minimum execution quantity set forth in Section 7.03, and (ii) the remaining unexecuted quantity of the side with the lower remaining unexecuted quantity. In all cases, an execution cannot be less than the minimum execution size as mandated by any regulation for the applicable jurisdiction (see, for example, Section 9.02).

Confirming messages

When a trader submits a proposal or other instruction during the negotiation process, the trader should receive a message in the negotiation room dialog box confirming the trader's instruction. The trader should contact Liquidnet Member Services promptly if he fails to receive a prompt confirming message or if the trader has a question about the confirming message.

Members and traders should contact Liquidnet Member Services promptly if they believe an error, failure or delay in transmission or receipt of a proposal, acceptance, confirmation or other negotiation event has occurred. Liquidnet Member Services will promptly respond to the Member or trader.

A trader should not exit the negotiation room after an accept until the effectiveness of the acceptance has been confirmed back to the trader in the negotiation room dialog box.

Groups of traders

A Member, through its OMS, assigns orders to individual traders. The individual trader to which an OMS order is assigned has the ability to manage any resulting indications or orders in the system. If a Member has grouping enabled, a trader through the system can configure himself or herself to access and take action on indications and orders of one or more other traders. However, at any time, only one trader can negotiate, create an order or otherwise take an action with respect to such an indication or order. If grouping is enabled for a Member, traders should coordinate with each other regarding the handling of indications and orders.

Closing price proposals

After the close of the regular session of trading in the primary market of the applicable country, the only type of proposal that can be submitted during a negotiation is a closing price proposal. The implementation of closing price proposals for Canadian equities is subject to prior approval by the Canadian regulators. Liquidnet will notify Members and customers prior to closing price proposals becoming effective for Canadian equities.

Trading on close in Canadian equities

For Canadian equities, when the regular trading session of the listed market (TSX, TSXV or CSE) has closed, Liquidnet terminates all open negotiations by setting the matching indications to the Outside status. Traders wishing to recommence the negotiation may do so, but they must manually set their indications as available to match again.

Continuing negotiations

After a trade is executed, the participants can continue to negotiate and execute trades with respect to the same security as long as they each have a remaining working quantity, even if one trader's remaining quantity is below the contra's minimum tolerance quantity.

In a continuing negotiation, either party can submit a proposal.

In a continuing negotiation, the negotiation quantity for each trader defaults to the lesser of the trader's negotiation quantity at the time of execution and the trader's current working quantity.

In a continuing negotiation, if the two traders submit proposals at the same price and within each other's tolerances, and prior to either trader receiving the other trader's proposal, the second proposal received by the Liquidnet back-end software will be treated as an accept.

Long name and other security information displayed in negotiation room

During a negotiation, Liquidnet posts the "long name" for the security in the negotiation room. The long name is provided by Liquidnet's market data vendor. Liquidnet also displays in the negotiation room the applicable exchange and currency for the security that is being negotiated. For example, "TSX" refers to the Toronto Stock Exchange and "CAD" refers to Canadian dollars. The purpose of displaying this information is to identify the security that is being negotiated and the settlement country and currency. When entering a negotiation, a trader should confirm that the long name, applicable exchange and currency are accurate; the trader should contact Liquidnet Member Services if he has any questions about the security that is being negotiated or the long name description, market, or currency that is displayed before proceeding with the negotiation.

Section 7.08 **Non-block orders in Canadian equities restricted to mid-peg**

In compliance with IIROC rules, a negotiation order for Canadian equities that (i) is 50 standard trading units or less and has a value of CAD$100,000 or less, or (ii) has a value of CAD$30,000 or less, is only permitted if it is a mid-peg order. The Liquidnet desktop application automatically restricts orders below these thresholds to mid-peg.

Section 7.09 Auto-negotiations

Background on auto-negotiations and the LPC

The system can transmit all or a portion of a Liquidnet algo, automated routing, LN auto-ex , automated negotiation or manual targeted invitation order as an indication eligible for matching through the Liquidnet indication matching engine. When such a match occurs, the indication associated with the Liquidnet algo, automated routing, LN auto-ex or automated negotiation order is represented as an available indication to the contra trader with an indication (sometime referred to as the "manual contra").

In this situation, the system can negotiate on behalf of the trader with the Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order. The feature of the negotiation functionality that performs this negotiation is referred to as the "Liquidnet pool contra" or "LPC". The functionality is referred to as "auto-negotiation".

Consistent with Liquidnet's negotiation functionality, a manual contra can only negotiate with one contra on a match; the contra to the manual contra could be another manual negotiator or the LPC, negotiating on behalf of one or more traders that have created Liquidnet algo, automated routing, LN auto-ex , automated negotiation or manual targeted invitation orders.

The LPC only can negotiate with one manual contra at any time with respect to any match.

Prior to the LPC commencing or entering into an auto-negotiation, the related Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order is canceled from Liquidnet H2O. The Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order can be resumed in Liquidnet H2O upon termination of the auto-negotiation.

The LPC will only execute in accordance with the price constraint instructions of the trader who created the Liquidnet algo, automated routing, LN auto-ex or automated negotiation or manual targeted invitation order.

LPC or manual contra can commence a negotiation

A negotiation can be commenced by the LPC or by the manual contra.

Negotiation commenced by the LPC

The LPC can send a mid-peg proposal to the manual contra. In response, the manual contra has the same options as it does upon receipt of a mid-peg proposal from another manual contra (as described in Section 7.08 above on negotiations).

Negotiation commenced by the manual contra

The manual contra can send an invitation to the LPC, either as a mid-peg proposal or a priced proposal.

- If the manual contra sends a mid-peg proposal, the LPC can enter into the negotiation room and accept on behalf of the trader who created the Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order (subject to the execution price being within the price constraints of the manual contra and the LPC).

- If the manual contra sends a priced proposal:

  o If the proposal is at or better than the mid (from the perspective of the LPC), the LPC can enter into the negotiation room and accept on behalf of the trader who created the Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order.

  o If the proposal is worse than the mid (from the perspective of the LPC), the LPC can enter into the negotiation room and respond to the manual contra with a mid-peg proposal. In response to the LPC's mid-peg proposal, the manual contra has the same options as it does upon receipt of a mid-peg proposal from another manual contra (as described in Section 7.08 above on negotiations).

Prioritization where the LPC represents multiple contras

Where the LPC represents multiple contras, Liquidnet executes the two (or more) same-side orders equally (for each order, up to its quantity), except that execution amounts are rounded up or down to the closest higher or lower round lot amounts to avoid an odd-lot execution. In addition, a same-side order may be unable to participate in an execution based on its minimum size being too large.

Automated negotiation instruction

Members notified of a match can provide an automated negotiation instruction. With this instruction, which represents a firm order, the LPC can negotiate on behalf of the Member. In addition, the Member's order can interact in Liquidnet H2O against other Member and customer orders but not against orders from LPs. A Member providing an automated negotiation instruction can designate an expiration time or condition through the Liquidnet desktop application. Please refer to Part V for additional detail.

Additional detail on auto-negotiation

When a Member or customer creates a Liquidnet algo, LN auto-ex or automated negotiation order, depending on the order type and parameters, all or a portion of the order can be submitted to match for potential negotiation with a manually negotiating contra. The Liquidnet system can send an invite to the manual contra and automatically negotiate on behalf of the Member or customer that created the Liquidnet algo, automated routing, LN auto-ex, automated negotiation

order or manual targeted invitation. Liquidnet will send an invite in an attempt to engage the manual contra. In certain scenarios, after a failed attempt, the system will stop sending invites to the manual contra. Failed attempts could result from the manual contra declining or missing the invite or the limit on the Liquidnet algo, LN auto-ex or automated negotiation order going out of market before the manual contra responds to the invite. A Member can request a configuration whereby the Member would continue to receive invites until the Member declines the invite or exits the negotiation.

Ability of Trade Coverage personnel to reset the auto-negotiation functionality

Through internal sales tools, Trade Coverage personnel can reset the auto-negotiation functionality, which results in the Liquidnet system sending an additional invite to the manual contra, provided that the manual contra is still available to match, the Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order is still within the parameters (limit and quantity) to send an invite, and one of the following sets of conditions has occurred:

- The LPC and the manual contra are matched and there was a partial execution between the two sides more than 30 seconds prior
- The LPC and the manual contra are matched a Trade Coverage representative is aware that the manual contra was off the desk earlier, and the Trade Coverage personnel subsequently becomes aware that the manual contra has returned to the desk
- The LPC and the manual contra are matched a previous negotiation failed because the mid-price moved away from the manual contra's limit, and the price has now moved back within the manual contra's limit
- The LPC and the manual contra are matched and a technical issue arose that prevented the negotiation from completing.

A Trade Coverage representative has no ability to modify the parameters of the Liquidnet algo, automated routing, LN auto-ex, automated negotiation or manual targeted invitation order.

Conditional LPC orders

The parent order to an LPC order can be a conditional order. In this scenario, the system automatically sends a request to the participant's system to commit the shares on the parent order. The participant's system responds by either sending or not sending a firm-up of the shares (known as a firm-up). These firm-up processes are automated. These messages are transmitted using the FIX protocol. The permitted time period for a firm-up is one second if the parent order is a Liquidnet algo or automated routing order and five seconds if the parent order is an LN auto-ex order.

The information in a firm-up request message includes an order identifier for the conditional order and confirmation of the order instructions from the conditional order, including symbol, side, limit price, quantity and other order instructions, such as minimum quantity, time-in-force

and mid-peg or better. Sending a firm-up request message communicates to a participant that there is at least one contra-side firm or conditional order.

Part VIII.   Liquidnet H2O execution functionality

Section 8.01 **Liquidnet Canada ATS**

Liquidnet H2O execution functionality for Canadian equities, as described in this Part VIII, is provided through the Liquidnet Canada ATS.

Section 8.02 Liquidnet algo, LN auto-ex and automated negotiation orders; LP IOC orders

Liquidnet H2O involves four types of orders:

- Liquidnet algo, automated routing, LN auto-ex, automated negotiation and manual targeted invitation orders created by Members, customers, or the Liquidnet trading desk as applicable ("customer H20 orders")
- LP IOC orders transmitted by liquidity partners (LPs)
- LP resting orders transmitted by LPs
- Accepts by Members in response to notification of a broker block opportunity (referred to as "broker block accepts").

Canadian liquidity partners (LPs) can create algo orders that interact with Liquidnet H2O as resting orders and also may interact with external venues. These algo orders do not interact with the Liquidnet negotiation system.

Liquidnet H2O handles all auto-executions described in this Part VIII.

Section 8.03 Execution, cancellation and editing of customer H2O orders

A customer H2O order or a broker block accept can execute against any other order in Liquidnet H20, except that an automated negotiation order cannot execute against an LP IOC or resting order.

A customer H20 order only executes in Liquidnet H2O if the execution price is within the price constraints of the Liquidnet algo, LN auto-ex or automated negotiation order and the contra's Liquidnet algo, LN auto-ex, automated negotiation or LP order.

Liquidnet H2O only executes orders in round lots.

The quantity of any execution is the lesser of the quantity of the customer H2O order and the quantity of the opposite-side order (but rounded down to the highest round lot). Effective on or after May 2, 2022, the minimum order size for H2O resting orders will be: (i) greater than 5,000 shares and CAD$30,000 in value, or (ii) greater than CAD$100,000 in value.

A trader can request cancellation (or edit) of a customer H2O order in Liquidnet H2O. Cancellation (or edit) is effective upon receipt and processing by Liquidnet's back-end software except to the extent Liquidnet's back-end software has previously processed an execution.

All customer H2O orders in Canadian equities in Liquidnet H2O are resting orders and are automatically cancelled at the close of trading of the regular session of the applicable exchange. Traders should monitor open orders during the trading day and request cancellations (or edits) as appropriate.

Liquidnet H2O can execute an order in a stock when the primary market in the applicable country has opened.

Section 8.04   Liquidity partners; LP IOC orders

LPs do not have access to the Liquidnet desktop application. Accordingly, they are not able to view any Liquidnet indications, nor are they able to participate in any negotiations. They can participate in Liquidnet functionality only as set forth in this Part VIII.

LPs have the ability to transmit IOC (referred to as "LP IOC orders") or resting orders to Liquidnet H2O for Canadian equities.

For each LP IOC order, the LP must specify the security, side (buy or sell) and quantity.

An LP also can specify the limit price of an LP IOC order. If no limit price is specified for an LP IOC order (i.e., a market order), Liquidnet H2O imputes the following limit price:

- Current best bid (in the case of a streaming sell order)
- Current best ask (in the case of a streaming buy order).

The system only executes LP IOC orders at or below the mid-price in the case of an LP IOC sell order and at or above the mid-price in the case of an LP IOC buy order.

LP IOC orders are not displayed. LP IOC orders are all IOC (immediate or cancel).

Section 8.05 LP resting orders

General

LPs also can transmit resting orders to Liquidnet H2O.

For each resting order, the LP must specify the security, side (buy or sell) and quantity. An LP also can specify the limit price of an LP resting order. If no limit price is specified for an LP resting order (i.e., a market order), Liquidnet H2O imputes the following limit price:

- Current best bid (in the case of an LP resting sell order)
- Current best ask (in the case of an LP resting buy order).

By default, the system only executes LP resting orders at or below the mid-price in the case of an LP resting sell order and at or above the mid-price in the case of an LP resting buy order, except that an LP can override this default upon request to Liquidnet.

All LP resting orders are automatically canceled at the close of trading. An LP can cancel a resting order at any time.

Minimum order size

The minimum order size for an LP resting order for Canadian equities is the lesser of 10,000 shares and CA$100,000 in value. Effective on or after May 2, 2022, for Canadian equities, the minimum order size for an LP resting order will be (i) greater than 5,000 shares and CAD$30,000 in value. Or (ii) greater than CAD$100,000 in value.

Conditional orders from LPs

LPs can transmit day orders on a conditional basis. This functionality, which is fully automated from the point at which the LP transmits the conditional order to Liquidnet, allows the LP to rest actionable order flow in the ATS that may include shares already placed at other trading venues. These orders are considered "conditional" since the LP will commit the order only prior to execution with a matched contra order. Prior to executing a conditional order, Liquidnet sends a request to the participant's system to commit the shares on the order, and the LP's system responds by sending remaining unexecuted shares to Liquidnet (known as a "firm-up"). This firm-up request is used to protect the participant against over-execution. LP firm-up rates are periodically reviewed by Liquidnet personnel, with appropriate follow-up to the LP to address any issues. In deciding what steps, if any, to take, Liquidnet will take into account the LP's firm-up rate relative to all LPs, whether there is adverse price movement to contra-side participants as a result of the failure to firm-up, potential frustration to other participants, the relative firm-up rates against different categories of contra interaction, and other relevant factors.

Section 8.06 Execution of LP orders

Contras to an LP order

For Canadian equities:

- An LP IOC order can execute against a firm customer H2O order
- An LP resting order can execute against a customer H2O order or against a broker block accept. An LP resting order also can execute against another LP resting order
- An LP IOC order also can execute against an LP resting order.

Execution quantity

Liquidnet only executes LP orders in round lots.

The quantity of any execution is the lesser of the quantity of the matching buy and sell orders, subject to any applicable minimum quantity (and rounded down to the highest round lot).

The minimum execution quantity for an LP resting order in Canadian equities is the lesser of 10,000 shares and CA$100,000 in value.

Section 8.07 Execution price

For Canadian equities, all trades in Liquidnet H2O are executed at the mid-price.

Section 8.08 Liquidnet back-end software for H2O execution functionality

An execution or cancellation of a customer H2O order or LP IOC order is deemed effective when it is received, processed and recorded by the Liquidnet back-end software, and is not effective until such time. The effectiveness of an execution or cancellation depends upon which event is first received, processed and recorded by the Liquidnet back-end software.

Section 8.09 Broker block opportunities

Notification of broker block opportunities

As described above, LPs can transmit resting orders to Liquidnet H2O. A Member with an opposite-side indication to an LP resting order can receive notification of the LP resting order as a broker block opportunity, except for LPs that have elected not to display their LP resting orders as broker block opportunities.

Notification is only provided to a Member when the limit price specified by the LP for its buy resting order is at or above the mid-price, or when the limit price specified by the LP for its sell resting order is at or below the mid-price. If a notification is provided and the mid-price subsequently moves above the limit price of the LP's buy order, or below the limit price of the LP's sell order, this is indicated in the notification to the Member.

A Member does not receive notification of a broker block opportunity if the Member has a match with another Member or customer. If there are multiple LP contras, the Member only receives one broker blocks notification.

Minimum quantity for notification of broker block opportunities

Currently, Members only receive notification of a broker block opportunity if the broker block opportunity meets (i) the tolerance of the Member's indication, (ii) any minimum execution size as mandated by regulation for the applicable market and (iii) the minimum broker blocks execution quantity for the applicable region, as follows:

- Canadian equities: either (i) greater than 5000 shares and CAD $30,000 in value, or (ii) greater than CAD$100,000 in value.

A Member also receives notification of a broker block opportunity if two or more LPs in the aggregate have opposite-side quantity that meets the applicable minimum notification quantity as described in this sub-section.

By default a Member also will receive notification of a broker block opportunity that is below the tolerance of the Member's indication if the broker

block opportunity meets the minimum execution size for the applicable market and the minimum broker blocks execution quantity for the applicable region. The notification will indicate whether the quantity of the broker block opportunity is below the Member's tolerance. A Member can elect only to receive notification of broker block opportunities that are at or above the Member's tolerance.

Creation and execution of broker block accepts

Upon receipt of notification of a broker block opportunity, a Member can create a broker block accept. A broker block accept is a resting order in Liquidnet H2O with a time-in-force, configurable by Liquidnet, as notified by Liquidnet to participants in advance. A broker block accept cannot be canceled by the Member during this time-in-force period. The current time-in-force configuration for a broker block accept is two (2) seconds. The execution price of a broker block accept cannot be higher than the mid-price as of the time that the Member submits a buy broker block accept or lower than the mid-price as of the time that the Member submits a sell broker block accept. During the time-in-force period, the broker block accept can execute against any contra-side orders in Liquidnet H2O. A broker block accept can execute against any opposite-side order or orders in Liquidnet H2O, subject to meeting the tolerance of the Member's indication and the minimum broker blocks execution quantity for the applicable region, as set forth above, and subject to the rules of execution priority as set forth in Section 8.09.

In response to an LP resting order, a Member is not able to reduce its quantity below the minimum size for execution of the LP resting order; this can reveal to the Member information regarding the minimum size for execution of the LP resting order.

Executions of broker block accepts against LP resting orders occur in the Liquidnet H2O system.

Odd-lot completion

Upon request, Liquidnet can enable a Member for odd-lot completion. If a Member is enabled for odd-lot completion and there is an odd-lot residual remaining on the Member's order after a broker block accept, Liquidnet automatically cancels the Member's order and generates an "implementation shortfall" algo order without a limit price. A Member with this configuration can request that a different algo type be used for handling these odd-lot residuals. A Member with this configuration also can request that the residual amount to which this applies be configured to an amount other than an odd-lot.

Configuration to participate in broker block functionality

Members elect through Liquidnet Transparency Controls whether to interact with resting orders from LPs. If a Member elects to interact with resting orders from LPs, Liquidnet can configure the Member to include or exclude receipt of notice of broker block opportunities. Members should contact their Liquidnet Sales coverage if they wish to change their configuration.

Configuration to dismiss same symbol and side broker blocks for the rest of the trading day

Upon request Liquidnet can set a configuration where the system will display to a trader, upon receipt

of a broker block, an option to dismiss the broker block for the remainder of the trading day. If the trader elects this dismissal option, the system will block the trader from receiving any broker blocks for the specific symbol and side for the rest of the trading day.

Broker blocks notifications based on placed orders

Member firms that meet certain criteria may be configured to receive broker block notifications based on a quantity that includes shares already placed at other trading venues. Liquidnet monitors Members with this configuration for usage in alignment with Member community protocols.

A Member with this configuration must manually update the OMS to free up shares placed at the other trading venues before creating a broker block accept in response to such a broker block notification.

Members that are configured to receive broker blocks notifications on placed orders can set filters so they do not receive such notifications when they have executed a specified percentage of the parent OMS order away from Liquidnet that day and the remaining quantity on the order is below a specified percentage of the 30-day historical ADV for the stock.

Section 8.10   Execution priority for Liquidnet H2O orders

Execution priority

For Canadian equities, orders in Liquidnet H2O, which only execute at the mid-price, are prioritized for execution as follows:

- *Execution against Member and customer orders*. As a first priority, an order transmitted to Liquidnet H2O (the transmitted order) will execute against a contra-side order from a Member or customer (whether firm or conditional) that is resting in Liquidnet H2O as of the time of receipt of the transmitted order.
- *Execution against firm LP resting orders.* As a second priority, the transmitted order will execute against a firm contra-side LP resting order that is resting in Liquidnet H2O as of the time of receipt of the transmitted order.
- *Execution against conditional LP resting orders.* As a third priority, the transmitted order will execute against a conditional contra-side LP resting order that is resting in Liquidnet H2O as of the time of receipt of the transmitted order.

Transmitted resting orders not executed in full upon receipt

Where the transmitted order is a resting order and is not executed in full upon receipt, the transmitted order can execute against any subsequently entered contra-order in Liquidnet H2O. As noted above, the possible types of contra-orders in Liquidnet H2O consist of:

- Member and customer orders, firm or conditional
- Resting orders from LPs, firm or conditional
- IOC orders from LPs
- Member broker block accepts.

Multiple contra-side orders within the same prioritization category

If Liquidnet H2O receives two (or more) same-side resting orders in the same security available for execution and both (or all) are in the same prioritization category, and Liquidnet H2O then receives a contra-order, Liquidnet H2O executes the two (or more) same-side orders equally (for each order, up to its quantity), except that execution amounts are rounded up or down to the closest higher or lower round lot amounts to avoid an odd-lot execution. If an equal split would result in an execution size for a same-side order that is below the order's minimum quantity, the same-side order would not participate in the execution.

For purposes of the preceding paragraph, the prioritization categories are as follows:

- Orders from Members and customers (whether firm or conditional)
- Firm resting orders from LPs
- Conditional resting orders from LPs.

Other applicable conditions

The foregoing rules of priority are subject to minimum size and other conditions for execution as set forth in these Trading Rules. In all cases, execution against a conditional order is subject to firm-up of the conditional order by the contra.

Section 8.11   Principal, agency and other orders by LPs

For Canadian equities, LPs can send agency and non-agency orders (such as inventory orders) to Liquidnet.

LPs can send customer orders to Liquidnet H2O, including orders of customers of their affiliates.

The list of external LPs described in Section 1.08 identifies which LPs are enabled to send non-agency orders in Canadian equities to Liquidnet.

Section 8.12 Blocking interaction with LPs

General

Members and customers only interact with IOC orders from LPs when they affirmatively create a customer H2O order that is firm. Members and customers elect through Liquidnet Transparency Controls whether to interact with resting and IOC orders from LPs for orders that do not access external venues.

Canadian equities – blocking interaction with specific LPs

For Canadian equities, a Member or customer can only block interaction with a specific LP if the Member or customer is affiliated with the LP and restricted from trading with the LP for a legal, regulatory or compliance reason.

Section 8.13 Aggregating opposite-side orders to meet an order's minimum size

For purposes of this Section 8.13, "aggregation" means executing an order (the "first order") against multiple opposite-side orders where the multiple opposite-side orders do not satisfy the first order's minimum size individually but do satisfy the first order's minimum size when aggregated. Liquidnet H2O does not aggregate to execute against an order from an LP, unless the LP specifically requests that it be configured to allow for aggregation. Liquidnet H2O aggregates to execute against other types of participant orders.

Section 8.14 Conditional orders in Liquidnet H2O

Types of conditional orders

Liquidnet H2O receives various types of conditional orders, as described in this section.

LPs can transmit resting orders on a conditional basis.

A Member or customer order can also rest in Liquidnet H2O as a conditional order. There are two ways in which this can occur:

- The parent order from the participant is a conditional order, and Liquidnet, in turn, sends a conditional order to Liquidnet H2O.
- The parent order from the participant is a firm order, but Liquidnet sends a conditional order to Liquidnet H2O. Liquidnet may send a conditional order to Liquidnet H2O in this scenario to facilitate interaction with Liquidnet H2O in conjunction with interacting with external execution venues

Firm-up and execution of conditional orders

When one or more conditional orders match against one or more firm orders or against one or more other conditional orders, this triggers a firm-up request state. For this purpose, a match means that the contra-side orders are executable against each other subject to firm-up of any conditional orders. During the period of the firm-up request state (the firm-up period), the orders that triggered the firm-up request state can only execute against each other (i.e., no other orders can execute against the orders that triggered the firm-up request state). All firm-up requests and responses are transmitted automatically using either the FIX protocol or a proprietary communication protocol agreed between Liquidnet and the applicable OMS vendor. Liquidnet H2O will not execute a conditional order until a firm-up is received from the participant.

The firm-up request process works as follows:

- *Category 1.* If a conditional LP order (Category 1 conditional order) matches against a firm contra-side order, Liquidnet H2O sends a firm-up request to the LP. Liquidnet H2O cancels the LP's conditional order upon sending the firm-up request to the LP. The matching orders are in a firm-up request state for up to one second, which means that the LP order will execute against the firm contra-side resting order if the LP firms-up within one second. When Liquidnet H2O receives a firm-up from the LP, Liquidnet H2O treats this as a new firm order. The LP's firm order is cancelled after receipt of the firm-up and any associated execution.

- *Category 2.* If a conditional algo order (Category 2 conditional order) matches against a firm contra-side order, Liquidnet sends a firm-up request to the Member or customer. Liquidnet cancels the conditional order upon sending the firm-up request to the Member or customer. The matching orders are in a firm-up request state for up to one second, which means that the algo order will execute against the firm contra-side resting order if the Member or customer firms-up within one second. When Liquidnet receives a firm-up from the Member or customer, the H2O ATS treats this as a new firm order. The Member's or customer's firm order is cancelled after receipt of the firm-up and any associated execution. If the Member's or customer's order is firm and the order from Liquidnet is conditional in Liquidnet H2O, the same process applies except that the firm-up is by Liquidnet instead of the Member or customer.

- *Category 3.* If a conditional LN auto-ex order (Category 3 conditional order) matches against a firm contra-side order, Liquidnet sends a firm-up request to the Member that created the order. The matching orders are in a firm-up state for up to five seconds, which means that the LN auto-ex order will execute against the firm contra-side order if the Member firms-up within five seconds. When Liquidnet H2O receives a firm-up from the Member, Liquidnet H2O treats this as a new firm order. If the Member firms-up within the firm-up period, the Member's firm order is cancelled after receipt of the firm-up and any associated execution. If the Member sends a firm-up after the five-second period but within ten seconds after the firm-up request, Liquidnet treats the order as a firm order for an additional five seconds, but the original firm-up period is not extended. Liquidnet cancels the conditional order if Liquidnet does not receive a firm-up within the firm-up period, the firm-up is for less than the full quantity of the conditional order, or Liquidnet executes the full quantity of the conditional order. If Liquidnet does not cancel the conditional order at that time, the conditional order is cancelled after a pre-determined time period that depends on the OMS and typically ranges between 10 and 60 seconds.

If there are conditional orders on both sides of a match, the firm-up process follows the description above, subject to the following:

- If both sides are Category 1 or 2 conditional orders, the one-second firm-up period runs concurrently for both sides.
- If both sides are Category 3 conditional orders, the five-second firm-up period runs concurrently for both sides.
- If one side is a Category 1 or 2 conditional order, and the other side is a Category 3 conditional order, a firm-up request is first sent to the Category 3 side. A firm-up request

is only sent to the Category 1 or 2 side if a firm-up has first been received from the Category 3 side within the five-second time period that applies for Category 3 orders.

- Execution priority where there are multiple contras on either or both sides is determined in accordance with Section 9.11.

The information in a firm-up request message includes an order identifier for the conditional order and confirmation of the order instructions from the conditional order, including symbol, side, limit price, quantity and other order instructions, such as minimum quantity, time-in-force and mid-peg or better. Sending a firm-up request message communicates to a participant that there is at least one contra-side firm or conditional order.

Section 8.15 Liquidnet as the sole execution venue for an LP order

An LP is not permitted to recommend or propose to a customer that the customer designate Liquidnet, or implement or provide any technology that designates Liquidnet, as the sole execution venue for an order or facilitate a customer setting up this type of order. Any order transmitted to Liquidnet should also be sent on similar terms to one or more other execution venues capable of executing the order. An LP is not permitted to recommend or propose any action or implement or provide any technology that seeks to evade this restriction – for example, selecting a second venue that the LP knows will be unable to execute the order.

Part IX. **Price restrictions; permitted price and quantity increments; short sale and other order and execution-related provisions**

Section 9.01 Price restrictions

The following table identifies price restrictions on the Liquidnet Canada ATS.

Jurisdiction	Price restrictions
Canada	In accordance with National Instrument 23-101, for Canadian equities, the Liquidnet system is reasonably designed to prevent executions outside the highest displayed bid and lowest displayed ask in the market at the time of execution. A negotiation order for Canadian equities that (i) is 50 standard trading units or less and has a value of Cdn$100,000 or less, or (ii) has a value of Cdn$30,000 or less is only permitted if it is a mid-peg order.

Section 9.02 Permitted price and quantity increments

The following table identifies the permitted price and quantity increments for the Liquidnet Canada ATS:

Jurisdiction	Permitted price increments	Permitted quantity increments
Canada	Up to 3 decimals	Round lots only (multiples of 100 shares)

Liquidnet may need to round an OMS limit price up or down to conform to the permitted price increment in the relevant jurisdiction. When a Member has a buy indication, Liquidnet rounds the Member's limit price down to the closest permitted price increment; when a Member has a sell indication, Liquidnet rounds the Member's limit price up to the closest permitted price increment.

Section 9.03 Short sales

Members and customers must comply with all legal restrictions on short sales applicable to them, including any restrictions on short sales in specific equities for which the applicable regulator has imposed short sale restrictions (referred to as "affected securities") and any disclosure obligations relating to short sale positions imposed by applicable regulators.

Members and customers are permitted to execute short sales in Canadian equities through Liquidnet. By submitting a short sale offer during a negotiation, creating a Liquidnet algo, automated routing, LN auto-ex, manual targeted invitation or automated negotiation order or transmitting an order to the trading desk, the trader confirms to Liquidnet that the trader has made arrangements prior to the entry of the order to borrow the securities that would be required to settle the trade. For traders using the desktop application, a notice will appear to confirm that

delivery can be made within three business days. If the trader is not able to make this confirmation, the trader will not be able proceed with the negotiation or Liquidnet algo, automated routing, LN auto-ex, automated negotiation order or manual targeted invitation order .

Members must identify short sales in their OMS

Members and customers must identify short sales of Canadian equities in their OMS to enable compliance with the short sale requirements described above in this section and for recordkeeping purposes.

Section 9.04 Locked and crossed markets

Liquidnet will not execute an order for an equity if the market in that equity is crossed (i.e., the best posted bid is higher than the best posted offer). If the market in an equity is locked (i.e., the best posted bid is equal to the best posted offer), Liquidnet can execute the order if at least one side of the trade is participating in a manual negotiation, has created an automated negotiation order or is responding to a broker block notification.

Section 9.05 Marketplace thresholds for Canadian equities

Pursuant to IIROC Rules Notice 15-0186, Liquidnet has implemented marketplace thresholds for the trading of Canadian equities. Any match that would violate the price movement thresholds set against reference prices defined by IIROC (NLSP and One-Minute Reference Price, as described below) will be rejected, and an error message will be provided to the affected parties explaining that the trade was rejected for failure to comply with IIROC marketplace thresholds. Additional details concerning the implementation of marketplace thresholds for the trading of Canadian equities are available on the Liquidnet website.

For the purposes of determining a price increase or decline, a marketplace must compare each order of a security to be traded on the marketplace to two reference prices:

- The national last sale price of that security on that particular trading day (NLSP); and
- The national last sale price of that security that occurred on the most recent minute interval (One-Minute Reference Price).

  - For example: at 10:00:00 the One-Minute Reference Price would be the value of the NLSP at 10:00:00 and remains constant for one minute until it is updated at the next minute increment at 10:01:00. The value of the One-Minute Reference Price at 10:01:08 is the value of the One-Minute Reference Price that was established at 10:01:00 and does not change, regardless of any orders that are executed, until it is reset at 10:02:00 to the value of the NLSP at 10:02:00.

Section 9.06   Order-handling instructions for Canadian equities

When transmitting an order to Liquidnet, a participant trading Canadian equities is required to notify Liquidnet if the participant is an insider or significant shareholder in the issuer, as these

terms are defined under Canadian regulations. For an order created through the Liquidnet desktop application, a Member is required to provide this notification through the Liquidnet desktop application. For an order transmitted by FIX, a customer is required to provide this notification through FIX Tag 6763 (UMIR Regulation ID) or another FIX tag as agreed between Liquidnet and the customer. If a customer does not provide FIX Tag 6763 for an order, Liquidnet interprets this as a value of "NA" (not applicable).

Section 9.07 UMIR requirements in Canada

Entering orders for display on a marketplace

Under the Universal Market Integrity Rules in Canada (UMIR), Liquidnet Canada is required to immediately enter for display on a marketplace an order that is 50 standard trading units or CAD$100,000 or less, subject to certain exceptions. One exception is that Liquidnet Canada determines based on market conditions that immediately entering the order on a marketplace would not be in the best interests of the client. Another exception is that the participant has specifically instructed Liquidnet Canada not to immediately display the full order. Liquidnet Canada treats an algo order as an instruction not to immediately display the participant's full order on a marketplace. Liquidnet also can determine that a participant does not want Liquidnet Canada to immediately display its full orders on a marketplace based on the course of dealing between Liquidnet Canada and the participant. Liquidnet Canada's view is that immediately displaying a full order on a marketplace is not in the best interests of the participant, absent unusual circumstances. However, Liquidnet Canada will comply with any instructions to the contrary from the participant.

Background on UMIR

Liquidnet Canada has posted on the Compliance page of our Member website background information on UMIR and certain provisions of UMIR that are applicable to our participants.

Part X. **Additional services – trading desk; execution consulting services; transaction cost analysis; Liquidnet Capital Markets; commission management; analytics; fixed income trading services**

Section 10.01 Liquidnet trading desk services

Trading capacity

Liquidnet's global trading desk is agency-only, except in the case of a test trade or an error or accommodation, as described in Section 12.10 below.

Liquidnet Canada trading desk

Liquidnet Canada operates an electronic agency-only trading desk for trading Canadian equities. The Liquidnet Canada trading desk is based in Toronto, but may also be operated from New York. In handling an order, the Liquidnet Canada trading desk can create a Liquidnet algo order to access external venues and the Liquidnet Canada ATS. Canadian Trading Desk personnel also have access to third-party algos. A customer can provide the Liquidnet Canada trading desk with specific instructions for handling an order, including whether to access the Liquidnet ATS.

Residual executions

Trading desk services include executing the residual portion of an order that was executed in part through a Liquidnet execution venue. If Liquidnet executes an order in a Liquidnet execution venue and in an external venue, Liquidnet will provide the trader with a weighted average price for the executions in the Liquidnet execution venues and the external execution venues.

Cross-border trading desk customer orders

If a trading desk customer or LP located in a specific region transmits an order for an equity in another region, Liquidnet's systems record that order as being routed by the Liquidnet entity in the customer's region to the Liquidnet entity responsible for execution. The entity located in the customer's region is considered the routing broker; the entity responsible for execution is considered the executing broker. For example, if a customer located in Hong Kong transmits an order for a US equity, Liquidnet's systems record the order as being routed by Liquidnet Asia Limited (the routing broker) to Liquidnet, Inc. (the executing broker).

Section 10.02 Execution consulting services; transaction cost analysis

Liquidnet's Trade Coverage group is responsible for providing execution consulting services to Members and customers with a focus on Liquidnet's algorithmic offering. This group is also responsible for providing various transaction cost analysis (TCA) reports for Members and customers and for various internal products. Liquidnet's Trade Coveragepersonnel are available to discuss execution results with Members and customers, and they can generate and provide customized TCA reports to

Members and customers. Members and customers should contact their Sales or EQS coverage for additional information on this service.

Section 10.03 Liquidnet Capital Markets

Liquidnet Capital Markets

The Liquidnet Capital Markets (LCM) team works with public issuers and stockholders of these issuers, as well as with Members and customers that seek to transact with public issuers and their stockholders. LCM makes public issuer liquidity for US equities available to Canadian, EMEA and US Members and customers. Subject to prior notice from Liquidnet, for Canadian equities, Members and customers may also interact with liquidity from LCM customers who are private equity or venture capital firms. All such transactions are facilitated through the Liquidnet Canada trading desk.

Section 10.04 Commission management service

Research payment program (Canadian Members and customers)

Liquidnet offers a research payment program that allows Members and customers in Canada trading any global equities to appoint Liquidnet as agent to collect add-on amounts on trades executed by a Member or customer with Liquidnet and pay, as agent, for permissible services. Permissible services include goods and/or services that comply with National Instrument 23-102 in Canada. To participate in the program, a Member or customer must contact Liquidnet to set up an account for the research payment program. A Member or customer can add pennies or basis points to its base execution rate to be collected into a Member's or customer's account balance (research amount). Members and customers can direct Liquidnet to pay vendors from the Member's or customer's account balance for permissible services. Liquidnet will not pay an invoice until it has been approved by the Member or customer. A Member or customer should not forward any invoice to Liquidnet, or have a vendor forward an invoice to Liquidnet, unless the Member or customer has confirmed that the invoice is for a permissible service.

Liquidnet reserves the right to reject an invoice, including for the following reasons:

- Liquidnet believes that the invoiced service is not a permissible service
- Liquidnet and the Member or customer are unable to work out a mutually satisfactory process for implementation of the program, including approval of invoices
- The vendor requests Liquidnet to sign an agreement on terms that are not acceptable to Liquidnet.

All new Canadian participants in Liquidnet's research payment program must enter into an agreement with Liquidnet Canada Inc.

The research amount in a Member's or customer's account is reduced by any payment from the account and any applicable sales, use or withholding taxes.

If a Member or customer becomes insolvent or otherwise terminates the operation of its business, Liquidnet will contact the Member or customer regarding the disposition of its research amount balance. If the Member or customer does not advise Liquidnet regarding the disposition of such balance within six months after terminating the operation of its business, Liquidnet will reduce the customer's research amount balance to zero, and the funds will be returned to Liquidnet.

Third-party providers

As an alternative to Liquidnet's commission sharing programs described above, a Member or customer in Canada can add-on to the Member's or customer's base execution rate for payment to a third-party commission management aggregation provider. The third-party aggregation provider must be approved by Liquidnet. A Member or customer also can allocate for payment to the third-party aggregation provider a percentage of commissions as agreed between Liquidnet and the Member or customer. Liquidnet provides, or confirms that the third-party aggregation provider provides, each of these Members and customers with certain disclosures regarding these referral arrangements as required by Sections 13.7 to 13.11 of National Instrument 31-103. These disclosures include all relevant fees and conflicts of interests and are provided prior to the Member or customer commencing participating in the program.

Commission aggregation service

Liquidnet, Inc. provides a service to Members and customers where Liquidnet can administer payments to research and other permissible service providers for executions at Liquidnet and at third-party brokers (referred to as the "commission aggregation service"). As part of the commission aggregation service, Liquidnet provides software that Members and customers use to monitor the amounts in their commission aggregation account (referred to as the "commission aggregation balance") and payments to Liquidnet and third-party brokers.

For Member and customers that participate in this service, Liquidnet receives trade information from the Member or customer and third-party brokers regarding executions that occur away from Liquidnet. On a periodic basis (typically monthly for the commission aggregation service and twice a month for the research payment account service), third-party brokers transfer a Member's or customer's balance with the broker to Liquidnet. These amounts are added to the Member's or customer's balance at Liquidnet along with amounts accrued based on executions through Liquidnet. A Member's or customer's balance is reduced by any payment from the commission aggregation account and any applicable sales, use or withholding taxes. The process for payment of invoices is the same as described above under "Commission sharing".

Liquidnet may charge third-party brokers an administrative fee in connection with Liquidnet's commission aggregation service.

Custody of assets

Liquidnet Canada holds all CSA cash balances in dedicated commission management accounts located in Canada.

Liquidnet, Inc. holds all commission aggregation balances in various accounts for the benefit of Liquidnet's commission aggregation customers. It holds US dollar funds in accounts in the US, Canadian dollar funds in accounts in Canada, and various currency funds in accounts in Bermuda.

Commission analyzer service

Liquidnet provides software that Members and customers can use to analyze their commissions incurred, and payments made, broken out by broker. Members and customers also can view commission targets set for each broker and progress towards meeting those targets.

Broker vote service

Liquidnet provides software that Members and customers can use to vote on providers of eligible services. These votes determine payment targets to various providers, as displayed through the commission analyzer software.

Additional detail

Members and customers can contact Liquidnet's commission management group or their Sales coverage for additional detail.

Section 10.05 Analytics and alerts

Algo ranking model

The Liquidnet desktop application provides pre-trade and post-trade analytics to aid in pre-trade decision making and post-trade evaluation. For EMEA and US equities, this includes Liquidnet's Algo Ranking Model (ARM), a pre-trade analytics tool that ranks Liquidnet's suite of algorithms for a proposed order (including specific settings for the algo, such as neutral) according to how the algorithms have performed historically given a set of order characteristics and specified market conditions. Where Liquidnet has made a customized change to an algo for a Member, the rankings are based on the standard version of the algo. The model ranks algorithms along three dimensions: performance; fill rate; and performance/fill rate combination. When this Section 10.05 refers to the ranking of an "algo", it means the ranking of a specific setting for the algo.

When submitting a request to the ARM, a trader inputs the relevant details of the proposed order, including symbol, side, quantity, order type and limit price, if applicable. A trader can also input "trader conviction", which means how bullish or bearish the trader is on the stock.

For US equities, the ARM includes course correction functionality for any open orders where the algo ranking model is used. With course correction functionality, a trader is alerted to any change in the top ranked algo based on changes in market conditions or the remaining leaves quantity and is provided the option to update his or her order to the new top ranked algo.

Liquidnet has introduced ARM and course correction for Canadian equities.

A trader with ARM and course correction can enable automated course correction. If a trader has enabled automated course correction, the system monitors for a change in the top ranked algo based on changes in market conditions or the remaining leaves quantity and will automatically change the algo to the new top ranked algo.

Liquidnet ranks algorithms based on such set of orders, market conditions, and algorithms that provide sufficiently strong confidence in ranking. Where confidence is not sufficient (for example in new markets or for new algorithms), an interpolation and mapping process produces approximate ranking.

Liquidnet makes available a service where Liquidnet can incorporate into the ARM product for a participant portfolio manager profile data provided by a third-party vendor to Liquidnet. Participation in this service is subject to prior approval by the participant, Liquidnet and the third-party vendor.

Alerts of abnormal price movements

The Liquidnet desktop application also provides alerts of abnormal price movements.

Raindrop alerts (formerly known as VHT liquidity opportunity alerts)

When a Member has an unmatched indication in the pool, Liquidnet will notify such Member through the desktop application when one of the following has occurred regarding the same symbol as the unmatched indication:

- There was a Liquidnet execution in the symbol earlier that trading day advertised through the desktop application and the Member has also elected to have its intra-day Liquidnet executions advertised through the Liquidnet desktop application (for non-attributed trades in markets where intraday community advertising is the default setting)
- The Member had a matched indication in the symbol earlier that trading day
- The Member failed to respond to a targeted invitation notification in the symbol earlier that trading day
- The Member received an invitation to negotiate in the symbol earlier that trading day
- The Member had a Liquidnet execution in the symbol earlier that trading day.

Such notification is referred to herein as a "Raindrop icon" and will be in the form of an alert icon displayed next to the symbol on the desktop application. Display of a Raindrop icon is intended to prompt a Member to create a targeted invitation for that unmatched indication.

In any of the circumstances outlined above, a Member's information will not be used by the Liquidnet system to trigger display of a Raindrop icon unless the Member is also opted-in to receive targeted invitations.

Trading analytics

Liquidnet makes available to Members and customers analytics provided by one or more Liquidnet affiliates, including Liquidnet Technologies Europe Limited (LTEL). Liquidnet can make these analytics available through the Liquidnet desktop application, a participant's EMS/OMS and/or via API. Sales and trading personnel can send analytics to Members and customers together with a description of the analytics being provided. Certain Liquidnet personnel can generate reports based on these analytics and third-party data and analytics and send these reports to Members and customers directly or through Liquidnet sales and trading personnel.

These analytics can include, but are not limited to, the following categories of data for a stock:

- performance
- spread
- trading volume
- volatility
- trading activity by control persons
- short interest
- posted liquidity.

Additional detail regarding the analytics that Liquidnet may provide is posted on Liquidnet Docs. The analytics described in this section are based on market-wide trading activity. Liquidnet sales and trading coverage personnel have access to these analytics. When providing analytics for a list of stocks or all of a participant's indications through the Liquidnet desktop application, the analytics may identify outliers (for example, a stock with a recent significant price movement). Members and customers can maintain and receive analytics and alerts for one or more watchlists of stocks. With prior consent, Liquidnet sales and trading coverage personnel (including Trade Coverage, Business Development, and Trading Desk) may also have access to a participant's watchlists for purposes of providing consultative support.

Liquidnet, in its sole discretion, determines whether to make any of these analytics available to a Member or customer and, if so, under what conditions. These conditions may include Liquidnet charging a fee for the service.

When a participant makes a request for analytics through the Liquidnet desktop application, the request is sent to (and retained on) LTEL's system, and LTEL transmits the analytics to the participant through the Liquidnet desktop application.

Best Ex Analysis

Liquidnet makes the Best Ex Analysis product (formerly known as Best Ex Replay) available to all Liquidnet Members. The purpose of the Best Ex Analysis product is to assist a trader in analyzing trading conditions for a particular stock and investigating executions (whether or not executed through Liquidnet) that appear to have experienced exceptional market conditions. A trader using the Best Ex Analysis product can input a stock and date and receive analytics for

that stock for that trading day. The analytics provide a generic description of trading activity in the stock for the applicable date and highlight any exceptional activity in the specified stock. The report relates to trading activity in the overall market and is not specific to Liquidnet.

A trader can retrieve information for a stock at any time: (a) on T+1 or after or (b) on trade date one hour after the close of the regular session of trading in the applicable market. The audit trail also can provide performance information relating to a Member's trade (whether or not through Liquidnet) on a specific date, subject to the Member inputting the relevant order and execution data.

The Best Ex Analysis product is available for Australian, Canadian, Hong Kong and US stocks and for European stocks in developed markets.

When a Member makes a request for Best Ex Analysis information as described above, the request is sent to (and retained on) LTEL's system, and LTEL transmits the analytics to the Member through the Liquidnet desktop application.

Segregation of LTEL and other Liquidnet servers; Qtech Software

LTEL's servers are segregated from Liquidnet's trading system servers. The Liquidnet and LTEL analytics products, including Best Ex Analysis and analytics provided through the Liquidnet desktop application, are developed and supported by Liquidnet and LTEL personnel and by personnel who work for Qtech (UK) Limited, a UK-formed technology consulting firm, and its affiliate, Qtech Analytics Private Limited, a company organized in India.

Liquidnet Analytics API

Liquidnet may also make analytics available to Members and customers upon request via an application programming interface (API). For example, for US equities, Liquidnet may make available pre-trade analytics that provide insights into the likelihood of obtaining a fill in a dark venue, e.g., expected dark fill rate given an order duration, for a given set of order parameters.

Other desktop alerts and analytics

Liquidnet may provide notifications (also referred to as "alerts") to a trader relating to the trader's activity through the system or information that a trader could otherwise see or have seen through the Liquidnet desktop trading application. For example, the desktop application can notify a trader of a Liquidnet execution, a course correction on an algo order, completion or cancellation of an order, a missed negotiation invitation or a missed targeted invitation. If a trader enabled for these alerts also is enabled for trading analytics through the Liquidnet desktop application, the trader also can receive analytics-related notifications. Certain alerts provide the trader the opportunity to take certain actions (for example, creation or editing of an order) in response to the alert.

Section 10.06 Fixed income trading services

Liquidnet provides fixed income trading services, as described in the Liquidnet Fixed Income Trading Rules, which are posted on the Liquidnet Member website. Except where otherwise specified, the provisions of these Trading Rules apply to equity trading, and the provisions of the Fixed Income Trading Rules apply to fixed income trading.

All fixed income customers must sign a Participant Agreement or Subscriber Agreement. A fixed income customer can sign a Participant Agreement, which is specific to fixed income trading through Liquidnet. Alternatively, a customer can sign a Subscriber Agreement, which covers all trading through Liquidnet, including equity and fixed income. For these customers, the Liquidnet trading system referred to in the Subscriber Agreement includes Liquidnet's equity and fixed income trading systems. If a customer has signed both agreements, the Subscriber Agreement applies for equity trading and the Participant Agreement applies for fixed income trading.

Part XI.   Use and disclosure of trading information and associated controls

Section 11.01 Anonymity; segregation of functions; and controls on access to information

Anonymity

Liquidnet does not identify a Member or customer to any third-party with respect to any order or trade, except as follows:

- Liquidnet identifies participants to Liquidnet's clearing firm and other parties involved in trade settlement in connection with the trade settlement process
- Liquidnet identifies participants to third-parties (such as the participant's OMS vendor or a sponsored broker designated by the participant) as specifically authorized by the participant.

Segregation of functions and controls on access to information

Liquidnet has established and implemented policies to maintain the segregation of personnel, including the following groups: (i) Trade Coverage; (ii) Business Development; (iii) Trading Desk; (iv) Liquidnet Capital Markets; (v) Commission Management Services; and (vi) Operations; as set forth in this section. Liquidnet also has established and implemented policies to control access to information by Liquidnet personnel, as set forth in this section. Some of these roles/functions may be combined in certain Liquidnet regions, as described below. For purposes of troubleshooting and resolving technical issues, e.g., network, data center, or other shared infrastructure issues, and for purposes of managing risk and the fulfillment of regulatory and supervisory requirements, Liquidnet personnel may selectively share information and data with relevant personnel within TP ICAP Group.

- *Trade Coverage*

  - *Role and Responsibilities.* Trade Coverage personnel sit on the sales desk. Their role is to facilitate negotiations and executions involving Members and customers, monitor and provide consultative support concerning Member and customer orders that interact with the Liquidnet ATS's and/or external venues (including Algo orders), and respond to inquiries and diagnose issues. While Trade Coverage personnel cannot execute Member or customer orders, they may recommend order modifications, where appropriate. In real-time, Trade Coverage personnel may also troubleshoot an order that is not performing properly, where instructed by a customer; troubleshooting can include modifying the parameters of the order. Trade coverage personnel can communicate real-time or historical Liquidnet trade execution data to Members and customers, subject to compliance with participant Transparency Controls settings. Trade Coverage personnel can also communicate real-time or historical public or readily- available execution data to Members and customers; for example, to notify Members and customers of the closing volume in a stock in the overall market for one or more prior days. Readily-available data means data that is available to industry participants through Bloomberg and similar subscription services. Trade Coverage personnel can also provide various

transaction cost analysis (TCA) reports and/or trading analytics to Members and customers. This includes providing a description of the analytics and distributing report provided by other Liquidnet personnel .

- o *Internal Support Tools.* Through various support tools, Trade Coverage personnel can view: Member's and customer's order and execution information, including, but not limited to, live and broken match data (including potential match quantity); negotiation histories; Liquidnet algo (including both low touch and high touch orders), Liquidnet-only, LN auto-ex, automated negotiation and targeted invitation orders created by Members and customers; activity relating to specific Liquidnet products (such as targeted invitations); information relating to OMS placements; and all trades executed by Liquidnet. Trade Coverage personnel can view this information at the Member, customer and trade level. When a Trade Coverage representative can view a match through an internal support tool, the Trade Coverage Representative can view both sides of the match.

- o Trade Coverage Personnel can also view information relating to the traders who access the Negotiation ATS, including, but not limited to: whether or not the trader is logged in; the traders current number of indications in the system and the shares and principal value represented by those indications; number, shares and principal value of outside and invalid indications; and the trader's historical executed ADV through the system.

- o *Access to Data by Sales Region.* Trade Coverage personnel in a region have access to trading information for the equities of any primary regions that they cover. Each Trade Coverage representative is assigned to one or more primary regions depending on their role. In addition, Trade Coverage personnel have access to trading information for all securities globally traded by any Member or customer that the Trade Coverage representative covers. In EMEA and APAC, each Trade Coverage representative covers all Members and customers in its region, and may also cover Members and customers in other regions. Access for a primary region includes the trading information of all participants who trade the equities of that region regardless of the location of the participant. For example, a Trade Coverage representative in the US with coverage of US and Canadian equities will have access to trading information for all US and Canadian equities, regardless of where the Member or customer is located, and also will have access to all equities traded by any Member or customer that the Trade Coverage representative covers, regardless of the location of the Member or customer.

o Configurations/Settings, Trade Coverage personnel have access to Member and customer configuration settings in order to respond to Member and customer requests. These settings include Member and customer names, user names (including trader names), Transparency Controls settings and whether a Member or customer is enabled for specific Liquidnet products such as trading analytics, targeted invitations, or Liquidnet algos. Trade Coverage personnel can view Member and customer settings for all regions and users.

o ***Member and trader performance and activity through Liquidnet.*** Trade Coverage personnel have access to reports on Member and trader performance and activity through Liquidnet, including positive action rates (PAR) and realization rates of individual Members and traders. Realization rate is the percentage of matched shares executed by a party. Reports can be broken out by date, country, sector, market cap and similar aggregated categories. Reports do not include symbol information. Reports can include for the relevant period data on matched liquidity, match rate, contra PAR, contra realization rate, trading revenue and percentage of volume traded through algo, LN auto-ex and automated negotiation orders.

Reports also can include data on indications received from a Member by instrument type, including aggregate number of indications, principal value or shares and the time of the most recent indication received from a Member. Reports do not include symbol information. Liquidity data is not broken out between buy and sell liquidity.

These reports can be product-specific. Examples of product-specific information would be the number of proposed orders submitted by a trader or Member to the algo ranking model, the number of targeted invitations sent or received by a Member or trader, the number and size of executions resulting from targeted invitations sent or received by a Member or trader, and response rates on targeted invitations sent or received by a Member.

o ***Trading away alerts.*** Trade Coverage personnel can receive a report on T+1 identifying when two Members are matched on a stock and there is evidence that one of the Members has executed a trade in the stock away from Liquidnet. The

report identifies the symbol, the Members and traders that are party to the match, and the Member that traded away from Liquidnet.

- o ***Transition of personnel from Trade Coverage to Business developement role.*** For a limited time period Trade Coverage personnel transitioning to Business Development role can perform both functions on the same day but at different times of the day.

>>> ***Sales supervisory personnel.*** Personnel with management and supervisory responsibility for Trade Coverage personnel have access to the same information available to the Trade Coverage personnel they supervise..

- ***Business Development (APAC and EMEA personnel).*** Business Development personnel are responsible for selling the different Liquidnet products, including trading analytics and other products available through the Liquidnet desktop application. Business Development personnel also perform the Trade Coverage role. Business Development personnel have access to the same data as Trade Coverage personnel. Certain employees within the Business Development team, known as New Sales personnel, are primarily responsible for prospecting and onboarding new Members and customers. With certain exceptions, e.g., matches, New Sales personnel have access to the same data as other Business Development personnel. Liquidnet Trade Coverage and Business Development (including New Sales personnel) are sometimes referred to collectively as "Sales". This paragraph applies for APAC and EMEA personnel.

- ***Trading Desk personnel (high touch)***

  - ***Trading desk EMS.*** Trading Desk personnel sit on the trading desk in the applicable region. They can trade orders sent to the desk by a customer in accordance with the customer's instructions. Through the EMS used by the trading desk:

    - Trading Desk personnel handle, troubleshoot and monitor all high-touch customer orders.

- Trading Desk personnel also can view and monitor all low-touch Member and customer algo orders and provide consultative support to Members and customers in connection with these orders.

Trade Coverage personnel can perform the Trading desk function on a back-up basis. In such cases, Trade Coverage personnel will not have access to internal Trade Coverage support tools.

- *Monitoring tools provided by routing brokers.* Liquidnet's Trading Desk personnel have access to monitoring tools that may be provided by brokers that provide routing services for Liquidnet. These monitoring tools assist Trading Desk personnel in monitoring the routing of orders through the routing broker.

  Internal Tools. Through internal tools, Trading Desk personnel can also view all executions by the participants that they cover, regardless of the order type. A member of customer can elect through Liquidnet Transparency Controls to restrict. Trading Desk personnel
- *to only view the Members or customers algo executions (including surge capture and residuals).* Trading Desk personnel also have access to internal TCA tools (described below) for the purpose of generating TCA reports.

- *Targeted invitations.* Trading Desk personnel can view whether an execution resulted from a targeted invitation.

- *Restrictions on Trading Desk personnel.* Trading Desk personnel cannot view matching indications.

- *Trading desk supervisory personnel.* Personnel with management and supervisory responsibility for trading desk activity can view Liquidnet trading activity for supervisory purposes.

- *Business Development (US and Canadian personnel).* Business Development personnel are responsible for selling the different Liquidnet products, including trading analytics and other products available through the Liquidnet desktop application. Business Development personnel have access to historical order and execution data for all Members and customers in the primary regions that they cover regardless of the order type(including data for any other regions in which those Members and customers are trading). Business Development personnel can communicate real- time or historical Liquidnet trade execution data to customers, subject to compliance with participant Transparency Controls settings. Business Development can provide trading analytics to customers, as described in Section 11.06. This includes providing a description of the analytics that the Business Development is providing and distributing reports provided by other Liquidnet personnel. This paragraph applies for US and Canadian personnel.

A Member or customer can elect through Liquidnet Transparency Controls to restrict US and Canadian Business Development personnel to only view the Member's or customer's algo orders and executions (including surge capture and residuals). For these purposes, LN Auto-Ex orders and orders from automated routing customers are not considered algo orders.

- *Performance Analytics personnel.* Liquidnet's Performance Analytics personnel (also referred to as "execution analysts" or "quantitative sales/TCA analysts") are responsible for providing tailored trade performance reports, analyses and consultation to Members and customers concerning the use and optimization of Liquidnet's algos and other trading products. These personnel also provide reports and analyses on community performance on an aggregate basis, as well as transaction cost analysis. Performance Analytics personnel have access to all order and execution information on an intraday basis. They also have access, on a T+1 basis, to symbol-specific information concerning active and broken matches (including match quantity and time), indication and negotiation history (including outside indications and contra party), and targeted invitations.

  o *Transaction cost analysis (TCA) tools.* Liquidnet's Performance Analytics personnel have access to one or more internal Liquidnet tools to conduct transaction cost analysis for the overall community and on behalf of individual participants..
  Members and customers that do not want Performance Analytics personnel to access their order information for the purpose of generating Member and customer-specific TCA reports on their behalf can notify their Liquidnet coverage team.

  o *Internal Tools. Through internal tools,* Performance Analytics personnel have access to all participant order and execution information in order to respond to participant queries relating to specific orders.

  o *Algo ranking model.* In connection with monitoring and improving the algo ranking model, Performance Analytics personnel have access on T+1 or after to the relevant details of proposed orders submitted by traders to the algo ranking model, including symbol, side, quantity, order type and limit price, if applicable.

  o *Model development and research.* Performance Analytics personnel have access to Liquidnet order and execution data contained in the Liquidnet databases for model development and research.

  o *Broken match data.* Through Liquidnet reporting tools, Performance Analytics personnel have access to data relating to broken matches. The purpose of this access is to enable Performance Analytics personnel to address Member queries relating to broken matches. For this purpose, matches can consist of matches with contra-indications, matches with contra-orders from Members and customers, and broker block notifications form LPs. Performance Analytics personnel can access all data relating to broken matches for this purpose.

A Member's consent is required before Performance Analytics personnel can access this data on behalf of a Member. The consent of contras is not required, but the contras are not identified through this reporting tool.

Performance Analytics personnel can provide their analysis to the requesting Member with respect to a specific match to which the Member's query relates or with respect to the Member's matches over a period of time (but without providing any contra information other than the match break reason and information that the Member would have seen through the Liquidnet desktop application). For reports relating to match breaks in US or Canadian equities over a period of time, disclosure of the match break reason is limited to indicating whether the match break resulted from an action by the firm to which the report is provided or the applicable contra.

- o *Targeted invitation analysis*. In connection with providing performance analysis of targeted invitations, Performance Analytics personnel can have intraday access to the relevant details of targeted invitations sent by Members..

- o *Automated routing customers.* Performance Analytics personnel participate in coverage responsibility for automated routing customers. Accordingly, they have access to all order and execution information of automated routing customers.

- *Liquidity Partnerships personnel.* Liquidnet's Liquidity Partnership personnel have responsibility for managing Liquidnet's relationships with LPs, routing brokers and sponsored brokers. In APAC and EMEA, these personnel have access to symbol-specific information concerning orders transmitted and executed by LPs on an intraday basis. In the US (which includes coverage for Canadian LPs) these personnel have access to symbol-specific information concerning (i) orders transmitted by LPs on a T+1 basis and (ii) executions by LPs on an intraday basis. Upon implementation of automated targeted invitation functionality for LP orders, Liquidity Partnership personnel in all regions will have access to information concerning targeted invitations from LP orders on an intra-day basis.

Through various internal tools, Liquidity Partnership personnel in all regions also have access on a real-time and historical basis to aggregated (non-symbol specific) information on orders transmitted and executed by LPs and sponsored brokers over daily and monthly time periods, including execution volume, revenue from the broker, revenue from contras (without the contras being identified), average order size, average daily unique liquidity and firm-up rate on conditional orders. Average daily unique liquidity is computed based on order size but seeks to remove duplicate order volume in the same symbol and side for a particular day. Data is broken out by LP name, contra type (for example, broker block, automated routing order or algo order), capacity of the LP (for example, agent or principal), and type of order (for example, firm or conditional, and algo or Liquidnet-only). Data relating to sponsored brokers is broken out based on the underlying Member or customer. Data is provided for the prior trading day or a longer prior period as selected by the user. Liquidity Partnership personnel in one region have access to this data for all regions. Liquidity Partnership personnel in all regions also have access to symbol-

specific, real-time information concerning Member and customer algo orders transmitted and executed through InfoReach; they also review various reports for surveillance purposes.

- **_Algo Design and Research personnel._** Algo development personnel. Liquidnet's Algo Design and Research personnel are responsible for the design, research and specification of Liquidnet's algorithms, as well as related models and analytic signals used by Liquidnet's algos. These algorithms seek to obtain best execution for Members and customers in accordance with Member and customer requirements and Liquidnet's regulatory obligations. Algo Design and Research personnel also include a subset of Software Development personnel who assist in developing and/or performing quality assurance of algorithmic logic, architecting relevant platforms, and performing related tasks. Product Support personnel can escalate production issues to this team for research and resolution. Trade Coverage and Trading Desk personnel also may escalate to the Algo Design and Research team Member and customer queries relating to trading decisions made by Liquidnet algos. To facilitate these objectives, Liquidnet's algo development personnel have access to algo orderand execution information on a real-time historical basis. Liquidnet's Algo Design and Research personnel cannot engage in trading activity and cannot modify any parameters of a Liquidnet algo order.

- **_Best Execution analysis personnel._** One employee is responsible for preparing the data for Liquidnet's monthly best execution meeting for the US and Canada. This employee generates aggregated (not symbol-specific) data for review by Liquidnet's Best Execution Committee. When acting in this capacity, this employee has access to matched indication, order, execution and other trading information on a T+1 basis solely for purposes of preparing this aggregated data for review by the Committee. This employee is Trade Coverage and Liquidity Partnership employee and can act as a Trading Desk employee on a back-up basis.

- **_Commission Management Services personnel._** Liquidnet's commission management services include commission aggregation, commission analyzer and broker vote services. Liquidnet's Commission Management personnel have access to all Liquidnet trade and allocation information. Liquidnet also receives information about third-party vendors and payment details where a Member or customer directs Liquidnet to pay the vendor for research and brokerage services. For Members and customers that participate in Liquidnet's commission aggregation service, Liquidnet receives trade information from the Member or customer and other brokers regarding executions that occur away from Liquidnet. Commission management personnel also have access to data provided by Members and customers that utilize Liquidnet's commission analyzer and broker vote products. Liquidnet has implemented detailed procedures to control and restrict access to commission aggregation, analyzer and broker vote information. In particular, database access control and network segmentation prevents personnel not involved with the provisioning and support of these services from accessing data provided by Members, customers and brokers in connection with these services.

- **_Sales Analytics Group personnel._** The Sales Analytics team provides data and reports to

internal Liquidnet customers, such as Corporate Leadership, Sales and Marketing, for use in monitoring, developing and enhancing Liquidnet's products and services as well as in support of Liquidnet's sales and marketing efforts. In addition, Sales Analytics personnel provide Members and customers with analysis and reporting that offers Members and customers insight into how they are using Liquidnet's products and services. Sales Analytics personnel have access to indication, order and trade information in the database and through Liquidnet's Cognos reporting tool. Reports, which can include trading information, may only be provided by the Sales Analytics group to employees in other groups if those employees are authorized, pursuant to Liquidnet's policies, to have access to the associated data. Certain reports provided by Sales Analytics may be provided to external parties, to the extent disclosed pursuant to these Trading Rules. Sales Analytics personnel also have access to one or more internal TCA tools to run TCA reports for participants.

- **Member Services personnel.** Member Services personnel have access to participant indication, order and trade information. They are located in a keycard protected area and are on a separate network segment from other Liquidnet personnel for certain activities, but certain Product Support and Implementation personnel sit in the sales and trading areas to assist in resolving production and implementation issues. Liquidnet's Member Services Department consists of the following teams: Product Support and Implementation; and Trade Services Member Services is also referred to as "Operations".

  o **Product Support and Implementation.** Product Support and Implementation personnel assist with implementation of participants, maintain up-time of the system, support connectivity with participants, and assist in resolving technical and functional issues affecting participants in their use of the system. Liquidnet's Product Support personnel have access to indication, order and trade information in the database and through the various Liquidnet support tools to assist in addressing technical and functional issues affecting participants. Product Support and Implementation personnel also have access to logs from each Member's Liquidnet desktop application and OMS interface with Liquidnet to assist in researching and troubleshooting implementation issues, evaluating additional liquidity from a Member that could be provided to the system, and suggesting technical improvement to a Member's interface.

  o **Trade Services.** Trade Services handles account set-up, trade allocations and trade settlement.

- **LCM personnel.** Liquidnet Capital Markets (LCM) personnel work on public issuer transactions.

  o **Public issuer transactions.** The LCM team works with issuers, individual and corporate control persons, private equity firms and venture capital firms to attract secondary offering, corporate repurchase, and control-person transactions for the benefit of our Members and customers. LCM customers do not have access to the Liquidnet desktop application; all listed shares transactions are facilitated through the Liquidnet trading desk.

  o **LCM personnel access to trading information.** LCM personnel do not have

access to any participant indication, negotiation, match or order information. LCM personnel can access Liquidnet execution information after T+20 and provide this information to LCM customers. The parties to the trade are not identified to LCM personnel.

- o **CRM system for LCM personnel.** LCM personnel have access to an instance of Liquidnet's CRM (customer relationship management) system specifically created for the LCM team. This instance contains standard CRM information relating to LCM customers, including contact information, the status of support incidents, and reports on LCM customer meetings and calls.

- **Fixed Income Sales personnel.** Liquidnet Fixed Income Sales coverage personnel sit on the sales desk; they can view fixed income orders from customers and contact customers to facilitate negotiations and executions in fixed income securities. Please refer to the Liquidnet Fixed Income Trading Rules for additional information. Members and customers can access the Liquidnet Fixed Income Trading Rules through the fixed income Member website, which can be access from Liquidnet's public website. Members and customers also can obtain a copy of the Fixed Income Trading Rules upon request to a Liquidnet Sales or Member Services representative.

- **Technology and controls personnel**

  - o **Enterprise Technology Services personnel.** Liquidnet's Enterprise Technology Services (ETS) group maintains the computers, networks, databases and connectivity that comprise the Liquidnet system. A subset of the ETS group (Production Support and Database Administration) has access to indication, order, execution and other trading information to troubleshoot production and system issues, when directed by the Product Support group. These ETS personnel are located in a keycard protected area and are on a separate network segment from other Liquidnet personnel for certain activities.

  - o **Software development personnel.** Personnel responsible for development, enhancement, and maintenance of the software components of the Liquidnet system include software developers, and quality assurance personnel. These personnel have access to indication, order, execution and other trading information on a T+1 basis in connection with the performance of their duties. In some cases (particularly troubleshooting), it is necessary for these personnel to utilize intra-day data. In these cases, such access must be made from within the access-controlled Member Services area and under the supervision of Member Services personnel. Alternatively, software development personnel can access intra-day and historical data through other Liquidnet internal platforms Any access to symbol information by a developer through these internal platforms generates an alert to Liquidnet's Security and Risk Management group for monitoring purposes. During an extended period when Liquidnet employees are not able to work from the office as a result of a pandemic or similar event, Liquidnet can provide software development personnel with intra-day access to log files that may contain indication, order, execution and other trading information in connection with the performance of their duties.

- *Product personnel.* Liquidnet's Product group is responsible for the design and enhancement of Liquidnet's trading products. Liquidnet's Product personnel have access to indication, order, execution and other trading information in real-time for the products that they work on (for example, the Liquidnet desktop application, algos, TCA and commission management).

  Product personnel can access and analyze trader usage data to enhance Liquidnet's products. An example of analyzing trader usage data would be to identify the conditions under which a trader is more likely to respond to a targeted invitation. Product personnel can engage LTEL personnel to assist in conducting an analysis of trader usage data. When performing this function, LTEL personnel are provided access to trader usage data but without identifying trader or participant names. LTEL personnel access this data through Liquidnet systems.

  Product personnel also can access trading information, subject to a delay of at least six calendar months, for evaluating new business initiatives that are unrelated to existing Liquidnet products; for new business initiatives involving quantitative analytics, they can make this trading information available to Performance Analytics personnel, subject to the delay period of six calendar months.

  Members of Liquidnet's Product group also have access to reports on Member and trader performance and activity through Liquidnet, as described above in the Trade Coverage section. These reports are not symbol-specific and do not include symbol-level information.

  In addition, designated Members of Liquidnet's Product group have access to the EMS and other trading tools used by Liquidnet Trading Desk and other Trade Coverage personnel. This access is to assist Liquidnet in responding to inquiries from Members and customers relating to system functionality in connection with day- to-day trading activity by Members and customers. Members of the Product group with responsibility for internal support tools sit in the Member Services area and have access to the same data as Member Services personnel.

- *Business Intelligence.* The Business Intelligence (BI) team develops reports for use by internal groups, including Sales Analytics, Corporate Leadership, Sales, and Marketing, for use in monitoring, developing and enhancing Liquidnet's products and services as well as in support of Liquidnet's sales and marketing efforts. BI personnel have access to indication, order, execution and other trading information in the database. Reports, which can include trading information, may only be provided by the Business Intelligence group to employees in other groups if those employees are authorized, pursuant to Liquidnet's policies, to have access to the associated data.

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- *Legal, Compliance and SRM personnel.* Liquidnet's Legal and Compliance personnel are responsible for working with the business units to establish and

enforce Liquidnet's legal and compliance policies. Compliance includes the Liquidity Watch function in the US, Canada and APAC and the Market Surveillance group in Europe. Liquidnet's Security and Risk Management (SRM) personnel are responsible for working with the business units to establish and enforce Liquidnet's policies relating to information security. Liquidnet's Liquidity Watch and Market Surveillance personnel have access to indication, order, execution and other trading information as well as commission aggregation information as part of their ongoing surveillance activity. Liquidnet's Legal, Compliance and SRM personnel are permitted to access trading information on an as needed basis in fulfilling their responsibilities, including for the conduct of investigations.

o *Finance personnel.* Designated members of Liquidnet's Finance team have responsibility for accounts payable and receivable operations in connection with the operation of Liquidnet's business. As part of these responsibilities, these designated members of the Finance Department have access to trading information after the end of the trading day. These personnel are located in a keycard protected area.

- *Trading analytics personnel.* Trading analytics personnel (also referred to as "analytics personnel") are involved in the development, sale and support of Liquidnet's analytics products and services, including analytics provided through the Liquidnet desktop application, analytics provided through other software products developed by Liquidnet affiliates (including Best Ex Analysis), and analytics provided by Liquidnet personnel

through reports and individual or group communications. Trading Analytics personnel may be associated with a registered or unregistered Liquidnet affiliate.

- o **General.** Analytics personnel have access to information relating to usage by traders of the Best Ex Analysis product and the analytics features of the Liquidnet desktop application. Analytics personnel use the same corporate network as other Liquidnet employees.

- o **Support of Liquidnet and analytics customers.** Certain analytics personnel work for non-registered Liquidnet affiliates. Some of these affiliates (referred to as "analytics affiliates") have their own customers to which they license analytics products. Certain Trade Coverage personnel in Liquidnet's London office also support customers of Liquidnet Technologies Europe Limited, an analytics affiliate (LTEL). These Trade Coverage personnel are located in the Liquidnet Europe sales area with other Liquidnet Europe Trade Coverage personnel and have access to the same sales support tools as other Trade Coverage personnel. A salesperson who supports LTEL's OMS partners (referred to as Channel Partners) and the customers of the Channel Partners that use the LTEL software also sits in the Liquidnet Europe sales area. This Channel Partner salesperson does not have access to Sales support tools used by Trade Coverage personnel. The Head of Sales for Liquidnet Europe also manages the sales function for LTEL.

- o **Information relating to block executions, targeted invitations and other trading system activity.** For purposes of analyzing various factors relating to block executions, targeted invitations and other trading system activity, Liquidnet can provide information relating to orders (including algo and non-algo orders), executions, targeted invitations and associated events, and other relevant trading system activity for analysis by Liquidnet's analytics software, including software provided by LTEL and/or other affiliates. The Head of Data Science and LTEL quantitative analysts have access to this information solely for purposes of facilitating this analysis. This data is provided on a T+1 basis, and Member and customer identities are masked.

- o **Qtech.** Liquidnet outsources development and support work Qtech (UK) Limited, a UK- formed technology consulting firm, and its affiliate, Qtech Analytics Private Limited, a company organized in India ("Qtech India"). Qtech personnel work in London and in India. Qtech employees work in a data center in India that includes employees of MSBC Group (Qtech India's parent company) and employees of other companies owned by MSBC. Qtech employees can access information relating to Liquidnet's and affiliate's products and participant usage of such products in connection with their development and support roles. In connection with their support function, Qtech support personnel can access indication information for all indications of Members that are enabled for trading analytics through the Liquidnet desktop application. This support function may include Qtech personnel assisting with the creation of a watchlist of specific

securities at a Member's request based on the Member's prior indications. This data is recorded on specific servers to which Qtech personnel have access; these servers are housed in a Liquidnet data center located in the US and/or Europe. These servers also record indication information of a participant during any period of time when a participant has the blotter window open in the desktop application, even if the participant is not enabled for trading analytics through the Liquidnet desktop application. The data above includes Member and user names. With prior authorization, Qtech personnel may also access historical trading information, including indication data, to assist Liquidnet's Software Development and Business Intelligence teams with other development projects on an as-needed basis. Qtech personnel may provide development and support services for other companies owned by MSBC Group and their clients.

- ***Management personnel access to aggregated liquidity information.*** To assist Liquidnet's Corporate Leadership and Sales management personnel in evaluating Liquidnet's business performance, these personnel have access on a next-day basis to reports that include aggregated quantity of Member liquidity, broken out between buy and sell liquidity. This data also is available in real-time to the Global Head of Equities Strategy and Head of Equities EMEA for EMEA equities only. This data is aggregated, and is not broken out by Member. Examples of these aggregated categories may include: country; sector; symbol; index and market cap (e.g., large, mid, small and micro). Liquidity information is based on the order quantity from a Member's OMS or other indication quantity communicated by a Member to Liquidnet.
- ***Internal dashboards***. Internal dashboards. Through various internal dashboards, Liquidnet personnel and their supervisors have access to the following:

  o Data that they are otherwise authorized to view based on their function, as expressly described in the specific section above relating to their specific function.
  o Data that is not symbol-specific relating to revenue, volume and product usage. This data can be broken out by Member or customer and individual trader. This data can include data described below that is not symbol specific.

- ***Data that is not symbol-specific.*** Liquidnet personnel in the following departments have access to data relating to customer and trader activity through Liquidnet that is not symbol specific ("non-symbol data"): Business Development; Business Intelligence; Compliance; Corporate Leadership; Algo Design and Research; Performance Analytics and the Finance; Product; Sales Admin; and Trade Coverage.

  Non-symbol data provides information on individual Member and trader usage of Liquidnet's trading and analytics products, including the frequency of specific actions taken by a Member or trader through the system. The following are examples of these actions: accessing the blotter screen; right-clicking on a symbol in the blotter screen;

accessing the analytics monitor; receiving a match popup; right-clicking on a match tile; right-clicking on an analytics monitor bubble; and clicking in an analytics window. An internal user can further filter this data based on the category of analytics alert (for example, performance, short interest or valuation). The non-symbol data also includes per trader and Member information on indications made available to Liquidnet and associated events, including number of indications, number of unique symbols, total principal value of indications, total indication shares, average indication duration, resulting matches, resulting matches executed, average match reaction time, average order resting time. The non-symbol data also includes data relating to orders and resulting executions.

- ***Internal reports; access through multiple internal products.*** If a Liquidnet employee is authorized to access a category of data through an internal Liquidnet product, as described in these Trading Rules, the employee may also access such data through an internal report or through a different internal Liquidnet product. Similarly, if a Liquidnet employee is authorized to access a category of data through an internal report, the employee may also access such data through an internal Liquidnet product or a different internal report.

- ***CRM system***. Liquidnet personnel in the following departments have access to the trading version of Liquidnet's CRM (customer relationship management) system; Business Development; Business Intelligence; Compliance; Corporate Leadership; Technology; Trading Desk; Finance; Fixed Income; Legal; Marketing; Operations; Product; Sales Admin; SRM; Technology (Business Analysts) and Trade Coverage. Liquidnet's CRM system contains standard CRM information relating to participants, including participant contact information, participant actual and target revenue information, participant trading volume information (not symbol-specific), the status of support incidents, and reports on participant meetings and calls. Through the CRM system, Liquidnet personnel can receive alerts relating to participant PAR, realization rate and similar performance metrics; these metrics are not symbol-specific. The CRM system does not contain symbol-specific information, but users can enter specific symbols into

the CRM system in connection with the resolution of trade errors and other trading incidents.

LCM personnel have access to a separate instance of the CRM system specifically created for the LCM team containing standard CRM information relating only to LCM customers, including contact information, the status of support incidents, and reports on LCM customer meetings and calls.

Analytics personnel have access to a third instance of the CRM system, referred to as the "analytics version". Trade Coverage personnel can share meeting minutes and call notes from the trading version of Salesforce with analytics personnel; and analytics personnel can share meeting minutes and call notes from the analytics version of the CRM system with Trade Coverage personnel.

- ***Trading data provided to Liquidnet employees generally.*** Liquidnet can provide aggregated trading data to its employees. Aggregated trading data can be broken out by country, sector, index and market cap. Liquidnet also can provide data to employees regarding specific executions, but the symbol is only identified for attributed trades (trades where Liquidnet is required by regulation to be publicly identified as the executing broker). Examples of data regarding individual non-attributed executions that can be provided include the quantity of Liquidnet's largest cross for a day by principal value and the quantity of Liquidnet's largest cross for a day by 30-day ADV. This data is in addition to symbol-specific data to which Liquidnet Sales, Member Services and other Liquidnet personnel may have access, as described above.

  Liquidnet can further provide any trading data to employees where the data is not symbol-specific. Examples of this type of trading data include:

  o Number of Members or customers trading through the ATS or trading desk in a specific region
  o Daily revenue
  o Aggregate liquidity from Members for that day
  o Current aggregate liquidity from Members available for matching
  o Daily shares, executions and principal traded that day, broken out by one or more of the following categories: negotiation; trading desk; desktop algos; LN auto-ex orders; automated negotiation orders; and execution against brokers
  o Daily shares and principal traded, broken out by time periods during the trading day, country or sector
  o Average execution quantity for the day
  o Average execution quantity for the day for negotiated executions
  o Largest print of the day (quantity only)
  o Liquidnet volume for the current day, week, month and quarter relative to Liquidnet's record volume for these periods
  o Liquidnet market share data.

This data can be presented through display screens at Liquidnet's offices and viewed by all Liquidnet employees who work in the relevant Liquidnet office and visitors to the office. This data can be provided on a global basis or broken out for the region where the Liquidnet office is located. Data also can be broken out by sub-region; for example: UK and Ireland; Nordic countries; Continental Europe; and Emerging EMEA.

- ***Supervisory personnel.*** Supervisory personnel review communications of the employees that they supervise. For EMEA equities, Sales supervisory personnel review communications of all Sales employees. For US and Canadian equities, Trade Coverage supervisory personnel review communications of Trade Coverage personnel, broker supervisory personnel review communications of all broker sales personnel, and supervisory personnel that supervise both Trade Coverage and broker personnel review communications of all Sales employees. For this purpose, broker personnel include all Sales coverage personnel other than Trade Coverage.

- ***Consultants, contractors, vendors and business partners.*** Liquidnet augments its in-house work force as needed with consultants, contractors, and vendor and business partner personnel. All such personnel are required to sign non-disclosure agreements with Liquidnet, and are subject to equivalent policies and procedures as Liquidnet employees in the departments in which they work.

Back-up arrangements

- for Sales and trading personnel

- *Canada.* A member of the Trade Coverage team for Canadian equities may also handle the Trading Desk(high touch) function, but, during that time, access to data by that Trade Coverage employee will be limited to the same data generally available to Canada Trade Desk personnel.. Trade Coverage and Business Development personnel based in the US also can handle the Trade Coverage and Business Development functions for Canadian equities. Trading Desk personnel based in the US also can handle the Trading Desk function for Canadian equities. The Member Services area in Toronto is located in a private office with access controls. Liquidnet's Toronto and New York offices handle the trade services function for Canadian equities; the product support function is handled from the US.

  Similarly, if all Trading Desk employees in the US are out of the office on a specific day or otherwise unavailable, a Trade Coverage or Business Development employee based in Canada can act as a Trading Desk employee. On that day, the employee will not perform any Trade Coverage or Business Development functions and the employee's access to data will be limited to the same data generally available to Canada Trading Desk personnel. In all cases above, any coverage is subject to the employee having the appropriate Canadian registrations.

- *Working from home.* Liquidnet sales, trading and other personnel in all regions are permitted to work from home on certain days consistent with their job responsibilities.

SSAE 18 assessment

Each year, Liquidnet engages an outside auditor to assess Liquidnet's processes and procedures for protecting the confidentiality of participant trading information. The report of this assessment (called an SSAE 18 assessment) is available to participants on request and posted on the Member website.

Section 11.02 Disclosure of execution data by Liquidnet

Attributed trades

For trades in Canadian equities executed on the Liquidnet Canada ATS, Liquidnet Canada is required by regulation to publicly identify itself to the market in real-time as the executing ATS. Liquidnet refers to these trades as "attributed trades." Trades resulting from orders that Liquidnet routes to third-party execution venues are not considered attributed trades.

Liquidnet community trade advertising

Community trade advertising refers to any trade advertising that is limited to Members and customers. Examples of community trade advertising are advertising through the Liquidnet desktop application, Liquidnet sales coverage, third-party EMSs and OMSs of Members and customers, and Member and customer chat rooms. By default, Members and customers are opted-in to intra-day (including real-time) Liquidnet community advertising of their trades in Canadian equities.

Through Liquidnet Transparency Controls, Members and customers can opt-out of intra-day Liquidnet community advertising for certain markets and/or certain trades (crossed vs. external), and instead opt-in to delayed community advertising, as per the table below. For example, for trades in Canadian equities executed on an external venue, a Member or customer can instead opt-in to community advertising at end-of-day or on T+21 (21 trading days after trade date).

Transparency Controls Settings for Liquidnet Community Trade Advertising			
Region	**Trade Type**	**Default Setting**	**Other Available settings**
Canadian equities	Crossed trades	Intraday	N/A
	External trades	Intraday	EOD; T+21

Since only Members have access to the Liquidnet desktop application, only Members can view trade advertising through the desktop application, but Members and customers can view other types of community trade advertising. Liquidnet may restrict a Member or customer from viewing community trade advertising based on the Member's or customer's Transparency Controls elections.

Trades above a specified share or principal value threshold are advertised through the Liquidnet desktop application in real-time; trades below a specified share or principal value threshold are aggregated and advertised through the Liquidnet desktop application at ½ hour intervals.

External trade advertising

External trade advertising refers to any trade advertising that is not limited to existing Liquidnet Members and customers. External trade advertising includes Bloomberg advertising. By default, Members and customers are opted-in to intra-day (including real-time) external advertising of their trades in Canadian equities. Through Liquidnet Transparency Controls, Members and

customers can opt-out of intra-day external advertising for certain markets and/or certain trades (crossed vs. external) and instead opt-in to delayed external advertising or opt-out of external advertising. For example, for trades in Canadian equities executed on an external venue, a Member or customer can instead opt-out of external advertising. The following table summarizes the default and available settings for external trade advertising for Canadian equities.

Transparency Controls Settings for External Trade Advertising			
Region	Trade Type	Default Setting	Other Available Settings
Canadian equities	Crossed trades	Intraday	N/A
	External trades	Intraday	None

External advertising at end-of-day or later includes Liquidnet advertising its daily aggregate volume in individual stocks through Bloomberg for posting after the close of trading.

After T+20, Liquidnet can disclose executed trades to current or prospective Members and customers, regardless of whether the parties to the trade have opted-in to community advertising or external advertising.

Additional detail on trade advertising

When advertised through Bloomberg intraday, trades above a specified share or principal value threshold are advertised in real-time, while trades below a specified share or principal value threshold are aggregated and reported at fifteen (15) minute intervals.

Ability to remove externally advertised trades from Bloomberg

Upon request by a Member or customer, Liquidnet sales coverage, trading desk personnel, and/or product support personnel, as enabled, may use Bloomberg's "MIOI" functionality to remove one or more externally advertised trades by the Member or customer from Bloomberg.

Brokers and Liquidnet Capital Markets customers

By default, liquidity partners (LPs) and brokers that participate as customers cannot make elections through Liquidnet Transparency Controls and cannot opt-out from intra-day Liquidnet community and external advertising, subject to the exceptions that transition managers can make elections through Liquidnet Transparency Controls.

Liquidnet defaults Liquidnet Capital Markets (LCM) customers to intra-day community and external advertising. LCM customers cannot opt-out from intra-day community advertising. LCM customers can opt-out from intra-day external advertising and instead opt-in to end-of-day external advertising or opt-out of external advertising. LCM customers do not have access to Liquidnet Transparency Controls. LCM customers can request either of these alternatives by contacting their trading coverage.

Identifying Liquidnet executions through the Liquidnet desktop application

Liquidnet community advertising may include Members viewing through the Liquidnet desktop application Liquidnet's aggregated execution volume in any security for a given time period, e.g., for the preceding trading day or the five preceding trading days. Liquidnet desktop users may receive additional alerts regarding historical Liquidnet executions, where:

- Liquidnet executed the largest print of the prior trading day in a stock
- Liquidnet executed the largest print of the year in a stock during the prior trading day
- Liquidnet executed a high percentage of ADV or block ADV in a stock during the prior trading day
- Liquidnet executed a high percentage of ADV or block ADV in a stock across the five previous trading days.

Attributed trades, i.e., where Liquidnet is required by regulation to publicly identify itself to the market, are always included within the data reported through the desktop application. As described above in this Section 11.02, for trades that are not attributed trades, Members and customers may choose, via Liquidnet Transparency Controls, to delay having their historical executions included in the trading data reported through the Liquidnet desktop application.

Reporting symbol-specific order and execution data to Members, customers, LPs and prospects (all equities)

Liquidnet sales and trading personnel can disclose symbol-specific execution data to Members, customers and LPs and prospective Members and customers if either of the following applies:

- External trade advertising is permitted for the trade based on the rules set forth above; or
- After T+20.

Disclosing symbol-specific execution data to existing Members and customers is permitted based on the rules for community trade advertising set forth above.

After T+20, sales and trading personnel can also disclose symbol-specific order information to Members, customers and prospective Members and customers. For example, sales and trading personnel may share algo order information to demonstrate the performance characteristics of Liquidnet's algo strategies.

The purpose for this activity includes supporting existing participants, attracting additional liquidity from existing participants, and attracting additional participants to join the system and add to our liquidity pool.

Excluding a Member's or customer's executions from all trade advertising

Upon request by a Member or customer, Liquidnet, in its sole discretion, can exclude the Member's or customer's trades from all Liquidnet trade advertising, including symbol-level and aggregated (not symbol-specific) advertising. This exclusion does not apply to any trade advertising that is required by the rules of a governmental or regulatory organization or an exchange.

Disclosure of Liquidnet product associated with an execution

After T+20, Liquidnet can disclose to participants and prospects the Liquidnet product associated with an execution for a limited set of executions.

Section 11.03 Disclosure of aggregated (non-symbol specific) data

Disclosure of aggregated data on the current trading day

Liquidnet personnel may disclose certain aggregated trading data to participants and other third parties. Aggregated data is is not symbol- specific, and may be broken out by one or more categories including but not limited to: sector, index, and market cap (micro, small, mid and

- large,
-

Aggregate data does not differentiate or separately identify buy and sell orders or liquidity

In communicating aggregate order, liquidity or execution data, Liquidnet does not differentiate between or separately identify buy and sell orders, liquidity or executions.

Section 11.04 Confirming and updating elections relating to Liquidnet's disclosure of execution information

Member and customer elections relating to trade advertising

Through Liquidnet Transparency Controls, Members and eligible customers can choose whether and/or when to permit the following usage of their execution data by Liquidnet:

- Liquidnet community trade advertising
- External trade advertising (e.g., through Bloomberg).

For these elections, eligible customers are buy-side algo and trading desk customers, and buy-side automated routing customers.

Process for confirming and updating elections

Liquidnet maintains a record of each Member's and eligible customer's elections relating to the categories of data disclosure described above. Through the Liquidnet Transparency Controls web-based system, Member and eligible customers can view and update their elections. Any changes input through Liquidnet Transparency Controls are implemented within twenty-four hours. A Member or customer also can update its Liquidnet Transparency Controls elections by contacting its sales or trading coverage. Members and eligible customers should contact their Liquidnet sales coverage with any questions.

Section 11.05 Reports to Members, customers and LPs relating to their own indications, matches, negotiations, orders and executions

Order and execution details

Liquidnet may provide to Members, customers and LPs information regarding their own equity orders:including, but not limited to (i) order details, consisting of order time, quantity, symbol, side, order type and limit price (if applicable), and (ii) execution details, consisting of time and quantity of any execution.

Match activity reports – equity orders

Liquidnet may further provide to Members and customers upon request reports with respect to their equity orders (Liquidnet algo, automated routing, LN auto-ex, automated negotiation and manual targeted invitation orders, including firm and conditional) to enable them to monitor their success rate with contras with which they matched. These reports can be provided on a next-day basis (T+1) or any time thereafter with respect to a period of one trading day or longer.

In particular, Liquidnet can provide the following aggregate information (not symbol-specific) to Members and customers with respect to their equity orders:

- The aggregate quantity of orders and shares submitted to Liquidnet by the Member or customer
- The aggregate quantity of orders and shares with matching indications
- In the case of conditional orders, (i) the aggregate quantity of orders and shares where Liquidnet requested firm-up from the Member's or customer's system, (ii) the aggregate quantity of orders and shares that the Member's or customer's system firmed-up in response to a firm-up request by Liquidnet, and (iii) the aggregate quantity of orders and shares executed by the Member or customer
- Average order and execution quantity
- The average resting and match duration of the Member's or customer's orders.
- The number of distinct symbol-side combinations received from the Member or customer; as an example, multiple buy-orders for a stock would be considered a distinct symbol-side combination, and a sell-order for the same stock would also be considered a distinct symbol-side combination

- In the case of conditional orders, (i) the number of distinct symbol-side combinations with a matching indication, (ii) the number of distinct symbol-side combinations where Liquidnet requested firm-up from the Member's or customer's system, (iii) the number of distinct symbol-side combinations where the Member's or customer's system firmed-up in response to a firm-up request by Liquidnet, and (iv) the number of distinct symbol-side combinations executed by the Member or customer
- Received and executed orders and share quantity, in each case, broken out by market cap (large, mid, small and micro-cap).

Liquidnet also can provide to Members and customers a symbol-specific report of their individual matched equity orders, including the duration of each order, subject to a minimum delay of 30 calendar days.

Data that was previously visible to a trader through the Liquidnet desktop application

To assist Members in conducting analysis of Liquidnet as an execution venue and to address concerns raised by Members relating to system usage, Liquidnet can provide to a Member a report containing information that was previously visible to a trader at the Member firm through the Liquidnet desktop application. The data in these reports can be symbol-specific and can include the time of a match, broker block notification, or targeted invitation notification and the actions taken by the Member and the contra (to the extent previously visible to a trader at the Member firm). The data in these reports is subject to a minimum delay of 30 calendar days. For the avoidance of doubt, this restriction is not intended to limit or otherwise restrict Liquidnet Sales or Product Support personnel from reviewing with a Member specific examples of the Member's recent trading activity in the course of servicing the account, e.g., when discussing recent trading behavior impacting the Member's PAR.

Liquidnet also can provide to Members on T+1 a report showing all matches for the prior trading day where all of the following conditions occurred:

- The Member to whom the report is provided (the "requesting Member") was a party to the match
- There was no execution
- The match was broken.

The report can indicate whether the match was broken as a result of an action taken by the requesting Member (for example, if the match was broken as a result of the requesting Member taking the indication outside or as a result of the limit price of the requesting Member's indication being away from the market).

Notification whether contra was a sell-side participant

Liquidnet can notify a Member or customer in real-time or on a delayed basis (including a report issued on monthly basis) whether the contra for any execution by the Member or customer was a sell-side participant.

Notification regarding reason for a missed execution

In response to an inquiry from a Member or customer as to why the Member or customer was not a party to a particular trade attributed to Liquidnet, when applicable, Sales personnel may disclose that the trade resulted from a firm order on the same-side as the Member or customer.

Notification of available contras to automated routing customers

Liquidnet automated routing customers (or their respective service providers) transmitting algo orders (including conditional orders) may receive electronic notification in real-time of the matching of an algo order with an available contra.

Reporting of execution venue and other information on routed orders

Upon request, Liquidnet can provide the following data to Members and customers regarding their routed orders:

- Real-time identification of each venue where a trade has been executed (FIX Tag 30)
- For any external execution, where provided by the execution venue, real-time notification of whether Liquidnet posted liquidity or executed against posted liquidity (FIX Tag 851)
- Reports covering a monthly or longer period identifying the percentage of shares executed in various external venues; these reports can provide data for individual algo types or for all Liquidnet algo orders created by the Member or customer.

Post-trade and post-match market movement (aggregated)

Liquidnet's Trade Coverage and Performance Analytics personnel can provide to a participant on an aggregated (not symbol specific) basis information relating to post-trade and post-match price movement in the stocks where they have executed or matched. Any data provided covers trading activity for a minimum aggregated period of one month.

This data can include post-trade price movement for the participant for executed trades, matches broken by the participant, and matches broken by the contra. Post-trade time intervals to be reported can be configured based on the participant's request.

This data is provided to the participant to assist the participant in determining whether it has incurred adverse price movement through Liquidnet.

Match analysis (aggregated)

Liquidnet's Trade Coverage and Performance Analytics personnel can provide to participants an aggregated match analysis of their indications and orders. Any data provided covers a minimum period of one month.

This data can include the percentage of the participant's indications or orders that matched, as well as the percentage of indications or orders that did not match as a result of the participant's limit price, the participant's tolerance, the contra's tolerance, the participant's chosen trading strategy or product, and the duration of the participant's indication or order. The report can also show the projected impact on the participant's match rate had the participant reduced its tolerance, increased its indication or order quantity, or extended the duration of its indications or orders by a specified amount or percentage.

This data is provided to participants to provide enhanced transparency regarding Liquidnet's processing of their indications and orders, and to assist participants in better understanding how they can improve their match rate through Liquidnet. Upon request, Liquidnet can provide participants with representative examples of specific orders that did not match, including symbol, underlying any aggregated "missed match" analysis described above. Any such representative examples are subject to a minimum delay of 30 calendar days and the number of representative examples provided to a participant shall not exceed 5% of the total number of orders included in any aggregated "missed match" analysis.

Broken match analysis

Performance Analytics personnel can provide data to a Member relating to the Member's broken

matches to assist the Member in understanding the causes of broken matches involving the Member, as described in Section 11.01.

Report of Member and contra positive action rates

Liquidnet can provide to Members a report of their positive action rate, and the positive action rate of their contras, through the Liquidnet system. A report covers a minimum period of one week and can be broken out by instrument type and individual trader.

Specifically, Liquidnet can report the following data to a Member for the relevant period, and for the applicable instrument type and trader:

- Number of matches
- Number of matches where the Member (or trader, as applicable) took a positive action, and the resulting positive action rate
- The aggregated PAR of the contras for these matches
- Of the Member's (or trader's) matches, the number of matches where the contras, on an aggregated basis, took a positive action, and the resulting aggregated PAR of the contras for these matches
- Symbols received by Liquidnet from the Member (or trader, as applicable); symbols matched; and the resulting match rate (symbols matched as a percentage of symbols received by Liquidnet)
- The average match rate for the Liquidnet community for the relevant time period of the report.

Report of average duration of a trader's indications

Liquidnet Sales and Member Services personnel can view and review with a trader reports showing the relationship between the average duration of the trader's indications and the trader's performance in Liquidnet. Reports are not symbol-specific and can show for selected time periods during the day number and aggregate share quantity of new indications and median duration. Data can be broken out by relevant factors, including market cap (large cap; mid cap; small cap; and micro cap) and sector. Performance statistics include PAR, match rate and executed volume.

Reports to LPs relating to firm-up of conditional orders

Liquidnet can provide reports to LPs showing the number of their orders or shares for which a match notification was provided to at least one Member with a matching contra-indication and the number of executions and executed shares resulting from these notifications. Liquidnet can similarly provide this report to an LP containing this information in the aggregate for all LPs. Liquidnet also can provide reports to LPs showing, for any conditional orders sent by the participant, the aggregated number of shares or orders for which a firm-up was requested by Liquidnet and the aggregated number of shares or orders where the LP provided a firm-up. These reports are not symbol-specific and cover a minimum period of one month.

Data relating to assessment of a participant configuration error

Where Liquidnet discovers an error relating to a participant configuration caused by Liquidnet, Liquidnet can provide order and match-level data to the participant, including data of other participants not otherwise available to the participant, to assist the participant in assessing the extent of the issue, without identifying any other system participant. Before providing any data, Liquidnet would make a determination internally that providing such data would not adversely impact any other system participant.

Section 11.06 Disclosure regarding aggregate characteristics of the Liquidnet community

Liquidnet can make the following disclosures to Members, customers and third-parties regarding the aggregate characteristics of the Liquidnet community:

- Total number of global Liquidnet Members and customers
- Number of Members and customers in each region (US, EMEA, Canada and Asia-Pacific)
- Percentage of the asset managers in each region that are Liquidnet Members
- Percentage of Liquidnet Members that are long-only asset managers and percentage that are hedge funds
- Criteria for participation as a Liquidnet Member or customer
- Total and mean equity assets under management across Liquidnet's Member and customer base
- Number of Members and customers in each region broken out by range of equity assets under management and the aggregate equity assets under management for the asset managers in each size range
- Percentage of total equity assets under management in each region represented by Liquidnet Members and customers.

Section 11.07 Aggregated usage and success-rate data relating to Liquidnet products

Liquidnet personnel can disclose aggregated usage data relating to specific Liquidnet products and product features, including number of Members, customers or traders that have used a product or feature, volume of usage of a product or feature (including by number of orders, shares, principal value or instrument types), and the success rate relating to a product or product feature. This data is not symbol-specific and is not specific to any Member or customer.

Examples of aggregated usage and success-rate data relating to Liquidnet products are as follows:

- The percentage of targeted invitation notifications that result in an execution.
- The percentage of targeted invitation executions where the executing recipient of the targeted invitation notification did not have an indication in the applicable security at the time he or she received the targeted invitation notification.
- For any period of one month or longer, the aggregate number of LP orders or shares for which a broker block notification was provided to at least one Member with a matching contra-indication and the number of executions and executed shares resulting from these notifications.

- For a particular product or service, the percentage of shares or principal value executed within the negotiation or H2O system or externally.

These are only examples of the types of aggregated usage and success-rate data that Liquidnet can provide.

Section 11.08 Reports relating to targeted invitations

T+1 report to Members relating to targeted invitations

Liquidnet can provide to a Member or customer on T+1 a report that includes the following:

- all manual targeted invitations created by the Member the prior trading day and, for each manual targeted invitation, whether at least one other Member received the targeted invitation and whether there was a resulting execution
- all algo and LN auto-ex orders created by the Member or customer the prior trading day and, for each algo or LN auto-ex order, whether at least one other Member received a targeted invitation and whether there was a resulting execution.

The purpose of the report is to assist Members in assessing if and how the sending of targeted invitations impacts execution quality.

Monthly report to automated routing customers relating to targeted invitations

Liquidnet can provide to automated routing customers a monthly report of all orders where Liquidnet sent a targeted invitation on their behalf. Liquidnet can provide this report for trades during any month on or after the 5th trading day of the following month. The purpose of the report is to assist automated routing customers in their best execution analysis and, more specifically, to assess if and how the sending of targeted invitations impacts execution quality.

Non-symbol specific TI data

Liquidnet personnel can disclose to a Member or customer the number of algo orders for which the Member or customer enabled TIs and associated execution information, such as number of executions and average execution size.

Liquidnet Sales and Product personnel can provide to a customer a report showing the number of targeted invitation notifications the customer would have received if Liquidnet had sent targeted invitation notifications to the customer based on the customer having sent a prior opposite-side order to Liquidnet. The purpose of this report is to validate whether to expand access to targeted invitation functionality in the future. This report does not identify any symbols and covers a minimum period of one month.

Section 11.09 Trading data provided to Member compliance and risk management personnel

Upon request. Liquidnet can provide to compliance and risk management personnel at Member firms reports containing data that was previously visible to a trader at the Member firm through the Liquidnet desktop application. The data in these reports can be symbol-specific and can include the time of a match or the actions taken by the Member and the contra (to the extent previously visible to a trader at the Member firm), and negotiation chat messages transmitted and received through the Liquidnet desktop application. The Member requesting this data must confirm to Liquidnet that the data will be used only for compliance and risk management purposes.

Section 11.10 Liquidnet aggregated commission data

Liquidnet provides commission data to a vendor that reports on dealer share of institutional commissions. Liquidnet provides this data broken out based on institution type, customer region, market and product. The institution types are: traditional long; traditional hedge; quant; bank; insurance company; pension fund; sovereign wealth fund; private bank; broker; and other. A customer region is a country or, in the case of the US, one of the following regions: New York area; West Coast area; Mid-Atlantic area; Mid-South area; and Boston area. An example of a market would be the "UK". An example of a product would be "equities" or "ADRs".

The vendor incorporates the data from Liquidnet in market share data that the vendor provides to Liquidnet and other dealers who participate in the vendor's service. The vendor provides this market share data to its participants through its password-protected website and other physical and electronic reports. Liquidnet provides this data on a quarterly basis. Liquidnet does not provide commission information for individual Members or customers or for individual stocks.

On a pilot basis, Liquidnet is providing a further break-out to the vendor between high-touch and low-touch executions. This pilot is limited to EMEA equities only and a limited category of institutions.

On an annual basis, the vendor provides Liquidnet with a list of institutions, and Liquidnet identifies to the vendor whether Liquidnet has received any commissions from each listed institution during the prior calendar year.

Section 11.11 Aggregated disclosure of limited partner holdings to general partner

In connection with US equity shares held at Liquidnet by a private equity or venture capital firm that is an LCM customer which shares are distributed by the firm (referred to as the "general partner") through Liquidnet to its limited partners, Liquidnet can disclose to the general partner the number of distributed shares that:

- Are still held by a limited partner at Liquidnet
- Have been executed by Liquidnet for the firm's limited partners
- Have been transferred by a limited partner to another broker.

A limited partner can opt out from having this information disclosed to the general partner. Liquidnet separately discloses to the general partner the number of shares of all limited partners that have opted out from having this information disclosed to a general partner. All data is

provided to the general partner on an aggregated basis and without identifying any limited partner.

Section 11.12 Data relating to client usage of products provided by Liquidnet and its affiliates

Liquidnet Holdings, Inc. and its affiliates, as identified in Section 1.03 of the Trading Rules, can share high-level information regarding which clients use which Liquidnet products across all Liquidnet business lines, including client identities. Examples of these products are equities trading, fixed income trading, trading analytics, and commission management.

A Liquidnet affiliate develops and provides an analytics product to portfolio managers and other investment professionals. Management and Product personnel associated with this affiliate have access to data that is not symbol specific relating to revenue, volume and product usage via internal dashboards, as described above in Section 11.01.

Section 11.13 Certain third parties

Plaques relating to large trades

Liquidnet can create and send to traders plaques relating to large trades that they have executed on Liquidnet. The plaque identifies the trader and firm and trade details, including symbol, quantity and trade date. Liquidnet will not send the trade details to the plaque manufacturer until 30 days after the applicable trade date. A Member or trader can notify Liquidnet at any time that it does not want Liquidnet to create plaques for the Member or trader.

Third-party analytics service

Upon request by a participant, Liquidnet can provide to a third-party analytics service designated by the participant information relating to the participant's orders, executions and other trading activity through Liquidnet.

Third-party risk management software provider

Liquidnet's Member Services group has engaged a vendor that has developed software to display risk management data to Liquidnet support personnel. The software graphically displays to Liquidnet's support personnel Liquidnet's credit and other risk exposures to individual Liquidnet participants. Liquidnet provides to the vendor on a real-time or historical basis data relating to risk limits and trading and settlement activity broken out by Liquidnet participant. Liquidnet provides a distinct numerical code to the vendor for each Liquidnet participant but does not provide any participant names to the vendor.

Part XII.   Operational, regulatory and compliance provisions

Section 12.01 Trade breaks

Contra errors

If, after a trade is crossed between two participants, Liquidnet reasonably determines that a trader has made an error or traded without proper authorization, Liquidnet has the discretion to break the trade. Liquidnet will provide a full explanation of the decision to both the trader and the contra and respond to all reasonable requests for information regarding the decision.

Trading halts

Liquidnet does not display matching indications, permit negotiations or execute trades during a trading halt. When a trading halt ends, the system can display matches and permit negotiations and executions.

Liquidnet pauses all orders during a trading halt, whether or not the orders were created through the Liquidnet desktop trading application. By default, the system auto-resumes all orders after the trading halt ends, but a Member can manually cancel any order created through the Liquidnet desktop application upon occurrence of the trading halt.

Trade cancels by an exchange

From time to time an exchange may notify Liquidnet of the exchange's cancellation of trades in one or more specific securities executed on the exchange during a specific time period. Where Liquidnet executes trades in the exchange's securities off-exchange, and except as otherwise set forth herein, Liquidnet will only break trades in the named security during the specified period if the exchange notifies Liquidnet that the trade cancel is market-wide and not limited to the exchange.

Section 12.02 Audit trails; trade reporting

Audit trail

Liquidnet records an audit trail of each trader's indications, bids, offers and other actions taken through the system.

Canada trade reporting

Liquidnet Canada reports all trades in the Liquidnet Canada ATS via the TMX IP, an OSC-approved information processor. Liquidnet Canada reports trades in the Liquidnet Canada ATS using the "L" marketplace identifier. For trades between two institutions, Liquidnet reports each side using Liquidnet's broker number (038/038). For a trade between an institution and a securities dealer, Liquidnet reports each side using the anonymous broker identifier (01/01).

In addition, Liquidnet Canada is required to provide a daily trade and monthly report to IIROC relating to trades in Canadian equities and a monthly report of all trades by Liquidnet Canada Members and customers in non-Canadian equities.

Section 12.03 Market data

General

Through the Liquidnet desktop trading application, Liquidnet may provide traders at Member firms with market data (highest displayed bid, lowest displayed ask and last sale in the applicable jurisdiction) for the equities that are traded in the network.

Liquidnet has begun introducing a version of the desktop application that can display market data from sources already available to a trader at a Member firm via his or her workstation under the Member firm's own arrangements with the relevant data providers, e.g., market data available to the trader via the Member firm's own arrangements with Bloomberg. Liquidnet refers to these sources as a trader's "local market data sources." When local market data sources are available on trader workstations, Liquidnet will no longer distribute market data to traders at Member firms utilizing this new version of the desktop application. In such cases, availability of a trader's local market data sources may be dependent on data usage limitations imposed by the trader's market data provider. If the Liquidnet desktop application cannot access local market data sources for a trader or Member, Liquidnet will provide market data to the trader or Member. When available via local market data sources, the Liquidnet desktop application will display the market data specified below that would otherwise have been provided by Liquidnet.

The remaining provisions in this Section 12.03 generally apply in cases where Liquidnet provides market data to traders at Member firms via the Liquidnet desktop application.

Market data for Canadian equities

Liquidnet sources market data for Canadian equities directly from the Canadian information processor – the TMX IP. The market data feed provides consolidated quotes of multiple display venues.

Liquidnet uses the TMX IP market data feed to determine best bid and ask.

Provision of market data through the system

Members are not authorized to access market data for any equity until they attempt to start a negotiation or create a Liquidnet algo, LN auto-ex or automated negotiation order for such equity.

Market data is displayed to traders to assist with the negotiation process. Traders may use this market data by clicking on the bid, mid, ask or last market price or the last submitted proposal. A trader can manually change this actual value price prior to submitting a proposal.

Traders should have an independent source of market data at the time a proposal or order is transmitted or modified to verify or validate market data displayed through the Liquidnet desktop application.

The bid and offer prices for a jurisdiction displayed through the Liquidnet desktop application can continue to update between the end of one day's regular trading session and the start of the next day's regular trading session.

Exchange market data terms and conditions

Exchanges providing market data impose terms and conditions on the use and redistribution of their market data. Members must comply with such terms and conditions as notified by the exchanges, subject to reasonable prior notice from Liquidnet. Liquidnet posts such exchange terms and conditions on the Liquidnet Member website. Liquidnet provides Members prior notice of such terms and conditions as applicable, including prior to a Member joining Liquidnet, prior to a Member being authorized to trade in a new market through Liquidnet, or prior to Liquidnet introducing trading on a new market.

Section 12.04 Trader access and OMS interface

Members and customers should contact Liquidnet Product Support for:

- Permissioning traders for access to Liquidnet's services
- Creating and maintaining trader accounts
- Removing inactive traders
- Field translations/mappings between the OMS and Liquidnet.

Members and customers are responsible for ensuring that their traders keep their Liquidnet passwords confidential to avoid improper access to Liquidnet's system and services. Members and customers are responsible for actions by their traders using Liquidnet's system and services.

Administrative personnel at Member firms can access the Liquidnet desktop application for monitoring, risk control and compliance purposes.

Section 12.05 OMS placements

General

Generation of placements in a Member's or customer's OMS can vary based on a Member's or customer's OMS and workflow. Typically, Liquidnet generates a placement in a Member's or customer's OMS when the Member or customer creates a Liquidnet algo order. The placement remains in effect for the duration of the algo order.

Requiring a confirmed placement prior to a negotiation

Subject to compatibility with a Member's OMS and workflow, Liquidnet can require a confirmed placement prior to the Member commencing a negotiation. This is referred to as the "place before negotiate" setting. With this setting, when a Member seeks to send or accept a negotiation invitation or create an automated negotiation order, Liquidnet sends a placement request to the Member's OMS and must receive a confirmation of the placement from the Member's OMS prior to permitting the Member to proceed with the negotiation. Liquidnet has implemented this as the default configuration for all Members, subject to compatibility with the Member's OMS and workflow; exceptions are subject to approval by the Head of Sales (or his designee) for the applicable Liquidnet region.

Execution against broker block opportunities

If a Member accepts a broker block opportunity, Liquidnet only permits the Member's resting order to execute if Liquidnet has previously confirmed a placement in the Member's OMS.

Attempting a placement for certain match events

Subject to compatibility with a Member's OMS and workflow, Liquidnet can attempt a placement in the Member's OMS upon the occurrence of one of the following events:

- *Upon match.* Liquidnet attempts a placement in the Member's OMS upon match with an available contra . The placement, if successful, is automatically canceled after 30 seconds if a negotiation has not commenced within the 30-second period. The placement also is canceled if the match breaks. .

- *Negotiation.* Liquidnet attempts a placement for a Member when the Member sends or accepts an invitation to negotiate.

A Member can elect one of the configurations above; a Member also can elect not to have either ofthese configurations. The placements described in the configurations above continue during the period of a negotiation (if the placement was in effect at the start of the negotiation), and Liquidnet requests a cancel of the placement upon termination of the negotiation.

Notification to Liquidnet sales

A Member's Sales coverage is notified when a placement is generated or canceled for the Member based on the configurations above.

Changing the configuration

A Member can contact its Liquidnet Sales coverage for information on the placement configuration that Liquidnet has implemented for the Member or if the Member wishes to disable or modify this placement functionality, subject to the conditions above.

Section 12.06 OMS updates

Members can have a one-way interface or a two-way interface. On a one-way interface, the trader should manually update the OMS after an execution through Liquidnet. On a two-way interface, the trader should check the OMS after an execution to confirm that the OMS has been properly updated with the correct execution information. For example, some OMSs will not update when the order is open in the OMS. A Member should contact its OMS vendor about any issues that may arise relating to electronic transmission of executions back to the OMS.

Members can configure the OMS interface to delay and bunch execution reports of Liquidnet algo, LN auto-ex and automated negotiation orders. Accordingly, a trader should refer to the Liquidnet desktop application for the most up-to-date status on executions of Liquidnet algo, LN auto-ex and automated negotiation orders.

Section 12.07 Clearing process

Trade date

Trades that are made in Liquidnet pre-market open, during the trading day or after the close of the applicable exchange are given a trade date of the current day.

Settlement date

The settlement date for Canadian equities is T+2.

Buy-ins; sell-outs

Liquidnet or its clearing firm reserves the right, in accordance with local market practice and subject to local regulations, to buy-in or sell-out a position not settled by settlement date.

Allocations

By the end of the trading day, Members and customers are required to electronically send Liquidnet trade allocations for all trades executed through Liquidnet that day. Such data may be electronically transmitted to Liquidnet via DTCC's OASYS™/Central Trade Manager software

or another mutually agreed upon method of transmission. Liquidnet transmits trade information to its clearing broker, in most cases at the end of each trading day.

Settlement parties

Settlement of trades with non-brokers is between Liquidnet's clearing or executing broker for the applicable market and the custodian or prime broker for the account(s) designated by the Member or customer, as follows:

Region	Jurisdiction	Liquidnet's clearing or executing broker
North America	US and Mexico	Goldman, Sachs & Co. (GS&Co.)
	Canada	National Bank Independent Network / NBF Inc. (for Canadian Members); GS&Co. (for non-Canadian Members)
EMEA	Belgium, France, Luxemburg, Germany and the Netherlands	Parel SA (Parel)
	All other countries	Pershing Ltd. / Pershing Securities Ltd. (Pershing)
Asia-Pacific	Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand, Australia and New Zealand	BNP Paribas Securities Services (BNP)
	Japan	BNP (for off-shore accounts); Liquidnet Japan self-clears for on-shore accounts
	India	Morgan Stanley India
	Korea	Morgan Stanley Korea
	Taiwan	Morgan Stanley Taiwan

When a Member, customer or trader submits an order or executes a trade on behalf of a principal account (which may be the Member or customer itself), it is a certification that the Member or customer is authorized to act on behalf of the principal account for such purpose and that the order or trade is a permitted investment of the principal account. Any trade executed through Liquidnet shall constitute the legal and valid obligation of the principal account.

Liquidnet Canada has been recognized by the Investment Industry Regulatory Organization of Canada (IIROC) as an acceptable trade matching utility. Trades in Liquidnet Canada by CDS Clearing and Depository Services Inc. members (brokers) are eligible for continuous net settlement.

Settlement process

All accounts to which executions are allocated must be Delivery Versus Payment (DVP) and Receive Versus Payment (RVP) accounts.

All trades settle according to an account's standing instructions. Members and customers should maintain all settlement instructions as current and update any instructions in the DTCC Alert™ platform or notify LNI's brokerage operations group as soon as possible.

Trades settle in the local jurisdiction of the security, as indicated by the Liquidnet instrument type. Members and customers must have a custodian, sub-custodian or prime broker in the local jurisdiction.

Trades settle in the currency of the local jurisdiction. Liquidnet does not offer Members and customers the facilities to execute FX transactions.

Upon request and subject to agreement by Liquidnet's clearing firm, Liquidnet can settle in US dollars a trade by a US Member in a Canadian equity. In this scenario, Liquidnet's clearing firm provides a currency exchange service, and Liquidnet's clearing firm settles with the US Member in US dollars based on the clearing firm's conversion rate.

In accordance with National Instrument 24-101 in Canada, Liquidnet Canada and its participants agree to establish, maintain and enforce policies and procedures designed to achieve matching as soon as practical after a trade is executed.

De minimis settlement claims

In accordance with the "Compensation Claims Guidelines and Best Practices" document published by the International Securities Association for Institutional Trade Communication (ISITC), Liquidnet does not make settlement claims for below $500 (or the equivalent in other currencies at the prevailing exchange rate) and expects that participants similarly do not make settlement claims that are below this threshold amount. This document is posted on the ISITC website at http://www.isitc.org under Market Practice, Claims and Compensation Guidelines.

Single-ticket clearing

Liquidnet can settle Member and customer trades with a broker designated by a Member or customer, where the broker provides a single-ticket clearing service to the Member or customer. In the single-ticket clearing service, orders are not routed through the systems of the single-ticket clearing firm. Trade information may be provided by the member or customer to the back-office of the single-ticket clearing firm in real-time. The member or customer settles directly with the single-ticket clearing service provider. Liquidnet's participation in a single-ticket clearing arrangement is subject to agreement of terms among Liquidnet, the Member or customer, and the designated single-ticket clearing broker.

Step-outs

Members and customers can step-out or give-up to third-party brokers trades executed through Liquidnet, subject to consent among Liquidnet, the Member or customer, and the third-party broker. Step-out is a US-specific term; give-up is a term used in EMEA and other regions.

Trade confirmations

The applicable Liquidnet entity and/or its clearing or executing broker in the applicable market send trade confirmations in accordance with applicable legal requirements. For example, National Bank Correspondent Network sends trade confirmations for trades by Canadian Members and customers in Canadian equities.

Stamp tax

Members and customers may be responsible for stamp tax in connection with purchases or sales through Liquidnet in certain instrument types. Members and customers should consult their tax advisors for additional information.

Section 12.08 Credit and other risk controls; controls to protect against order entry error

Credit risk controls

Liquidnet has established a US$5 million aggregate exposure limit for each Member and customer globally. A Member's or customer's exposure represents the net out-of-the-money value of trades that it has executed through Liquidnet but not yet affirmed. Liquidnet's Member Services personnel monitor for Members and customers that approach this exposure limit and endeavor to notify them before the applicable limit is reached. If a Member's or customer's exposure approaches or exceeds the limit, Liquidnet's Member Services personnel take corrective actions that may include contacting the Member or customer to affirm trades, increasing the Member's or customer's credit limit or suspending trading activity for the Member or customer.

Principal value and share limits through the Liquidnet desktop application

Members can set hard and soft per order quantity limits to protect against order entry error. The following options are available:

- *By instrument type.* A Member can set a separate quantity limit for each instrument type.

- *By trader.* Each trader can set his or her own set of quantity limits for each instrument type.

- *Hard or soft limit.* For each instrument type, a trader can set a hard limit or a soft limit. With a hard limit, a trader cannot submit a negotiation proposal or create a Liquidnet algo, LN auto-ex or automated negotiation order that exceeds the trader's designated limit. With a soft limit, the system notifies the trader when he or she enters a price and quantity for a negotiation proposal or Liquidnet algo, LN auto-ex or automated negotiation order that exceeds his or her designated limit, but the trader can proceed to submit the negotiation proposal or create the Liquidnet algo, LN auto-ex or automated negotiation order.

- *Shares or principal value.* For each instrument type, a trader can designate a maximum share limit or a maximum principal value limit. The principal value limit can be set based on the local currency or based on US dollars.

Members can contact their Liquidnet Sales coverage to request that these controls be implemented.

Additional controls for negotiated executions and algo, LN auto-ex and automated negotiation orders

To safeguard against the entry of erroneous orders, Liquidnet limits the principal value of a negotiated execution for Canadian equities to CAD$100 million. Liquidnet also prevents the creation of any Liquidnet algo, LN auto-ex or automated negotiation order for Canadian equities that is above CAD$100 million. Liquidnet provides the above-referenced risk management and supervisory controls to Members and customers trading Canadian equities on the Liquidnet system.

Controls through the Liquidnet trading desk EMS

- *High touch and low-touch orders*. A high-touch order is an order that requires an action by a Liquidnet trader before Liquidnet can commence trading of the order. The Liquidnet trading desks in each region handle high-touch orders for the equities traded in their respective regions.

  A low-touch order is an order where the customer designates an algo and the algo order can be traded by Liquidnet upon receipt without any action by a Liquidnet trader. Low-touch orders can include algo orders created through the Liquidnet desktop application and Liquidnet algos selected and routed from the customer's OMS desktop, including Liquidnet Only. Liquidnet's EQS group in Toronto monitors low-touch orders for Canadian equities in accordance with applicable Canadian regulations, except that Liquidnet Canada Trading Desk personnel in New York or Toronto can view but do not monitor low-touch orders created through the Liquidnet desktop application.

- *InfoReach*. The Liquidnet Canada trading desk uses the InfoReach EMS to handle both high touch and low touch orders.

- *InfoReach alert thresholds*. InfoReach provides alert functionality; if an alert threshold is triggered for an order, InfoReach automatically pauses the order, and the order cannot continue executing until a Liquidnet trader affirms that the order should continue executing. The following alert thresholds have been implemented for incoming orders handled through InfoReach:

Region	Principal value limit (per order)	Share limit (per order)	Order size as a percentage of	Open gross positions	Limit price deviation

			ADV (in shares)		from arrival
Canadian equities	US$10 million	1 million shares	200%	US$50 million	9%

- o *Application of alerts.* Alerts are triggered upon receipt of an order that exceeds an alert threshold. For high-touch orders, alerts also are triggered upon creation of a child order that exceeds the thresholds above

- o *Adjustment of alert thresholds.* Liquidnet can adjust an alert threshold based on a request by a Member or customer, but any increase from a threshold set forth above is subject to approval by Liquidnet consistent with Liquidnet's risk management policies. Liquidnet can reduce the applicable thresholds for one or more Members or customers upon notice based on Liquidnet's risk management policies.

- o *Configuration of alert thresholds.* A Member or customer can request configuration of any of these alerts based on the following order characteristics: high-touch or low-touch; market or limit; and instrument type. However, any increase from a threshold set forth above is subject to approval by Liquidnet consistent with Liquidnet's risk management policies.

- o *Principal value of an order.* For purposes of Liquidnet's risk controls:

  - ▪ Principal value of a limit order equals the number of shares times the Member's or customer's limit price
  - ▪ Principal value of a market order equals the number of shares times the last sale price in the market (or, if the last sale price is not available, the previous day's closing price).

- o *ADV.* For purposes of Liquidnet's risk controls, "ADV" means the average daily trading volume in the stock for the 21 prior trading days.

- o *Open gross positions.* The open gross positions threshold is applied in the same manner as the principal value limit (per order) threshold, except that the principal values of all unexecuted algo orders of a Member or customer are aggregated.

- o *Arrival price.* Arrival price is the last sale price in the market at the time of order receipt (or, if the last sale price is not available, the previous day's closing price).

- o *Additional alert threshold based on price movement.* A Member or customer can set an additional alert threshold based on the price movement in a stock from the time of order receipt relative to the arrival price. Liquidnet does not set this alert threshold by default but can do so upon request of a Member or customer.

- ***Handling of alerts***. If an order triggers an alert threshold, as described above, the Liquidnet EMS pauses the order and generates an alert to the Liquidnet trading desk orTrade Coverage team, as applicable. Upon receipt of an alert, the Liquidnet trading desk or Trade Coverage team must review the order details to determine whether the order could represent an error by the Member or customer. If the Liquidnet representative determines that the order could represent an error, the Liquidnet representative should contact the Member or customer to confirm the order quantity, principal value or limit price, as applicable. Upon receipt of the confirmation from the Member or customer, or if the Liquidnet representative determines that the order could not represent an error, the Liquidnet representative can proceed with the order. If the Member or customer is not able to provide this confirmation, the Liquidnet representative should cancel the order and notify the Member or customer of the cancellation.

- ***Reducing a customer's trading limits***. Upon prior notice, Liquidnet can reduce a Member's or customer's trading limits in accordance with Liquidnet's risk management processes.

Controls for third-party algo and routing technology

As discussed in Section 3.10, Liquidnet utilizes third-party algorithmic, aggregator and smart order routing technologies to maintain trading schedules and route to exchanges and other venues, including the Liquidnet negotiation and H2O systems. Where Liquidnet utilizes a third-party broker's technology in this manner, Liquidnet works with the third-party broker for the third-party broker to implement relevant automated risk controls, including controls relating to price and quantity.

Execution price controls

Liquidnet complies with price restrictions as required by regulation (see Section 9.01).

For Canadian equities, the Liquidnet desktop application warns a trader if he or she tries to submit a bid or offer that is more than 5% away from the quote price (usually the primary quote). The Liquidnet desktop application prevents a trader from submitting a bid or offer that is more than 10% away from the quote price. Liquidnet can adjust these protections for a Member at the Member's request, but is not required to increase the percentage above the specified default percentage.

Suspension

Liquidnet can suspend or terminate a current or prospective Member's, customer's or LP's participation in Liquidnet in accordance with Liquidnet's risk management processes, based on credit concerns, material disciplinary history, regulatory compliance, system and technical issues, non-compliance with the Trading Rules or other usage protocols, and other factors that Liquidnet determines appropriate, subject to Liquidnet acting in a non-discriminatory manner.

Additional details regarding Liquidnet's risk management controls

Members and customers should contact their Liquidnet sales coverage or Liquidnet Member Services for additional detail regarding Liquidnet's risk management controls and processes.

Section 12.09   Credit review

In connection with a credit review of a participant, Liquidnet can request financial information from the participant where the information is not publicly available.

Section 12.10 Errors and accommodations; test trades

This section relates to Liquidnet's handling of errors and accommodations and test trades.

Liquidnet's error and accommodation accounts

Liquidnet may need to book a trade through our error or accommodation account (i) in the case of a Liquidnet, Member or customer error or (ii) where Liquidnet agrees after the close of trading to provide an average price execution to a Member or customer for the odd lot or other residual portion of the Member's or customer's order previously executed by the Member or customer through Liquidnet. This activity is booked through Liquidnet's error or accommodation account, each of which is a principal account of Liquidnet.

Liquidnet will only book a trade through our error or accommodation account if specifically requested by a Member or customer. Liquidnet is not obligated to provide any accommodation to a Member or customer. Any decision by Liquidnet relating to an error or accommodation is subject to internal approval, consistent with Liquidnet's policies and procedures.

Liquidnet can enter into a hedging transaction as principal to hedge the risk of a position taken as a result of an error or accommodation.

Liquidnet's procedures when closing out error and accommodation positions

When closing out a position resulting from an error or accommodation, Liquidnet has implemented the following controls for the protection of Liquidnet Members and customers:

- Liquidnet closes out trading positions by creating a Liquidnet algo order (external only) or through DMA (direct market access) to an exchange or other execution venue.

- Any Liquidnet algo order has the same implementation and priority as another algo order of the same type and parameters, regardless of whether the algo is initiated by a Member or customer or a Liquidnet trader; the only difference is that any Liquidnet algo order created to close out a position resulting from an error or accommodation only can execute in external venues.

- Liquidnet's traders do not have access to any information regarding indications or negotiations taking place in the Liquidnet negotiation system.

Test trades requested by a Member, customer or LP

If specifically requested by an existing or prospective Member, customer or LP, Liquidnet may execute a test trade with the Member, customer or LP to test new functionality that the Member, customer or LP will be accessing. These test trades are for minimal round lot quantities (for example, 100 shares for Canadian equities). Liquidnet acts as principal when effecting these test trades and promptly closes out the position through the external market. These test trades do not interact with any Member, customer or LP order flow except for the order flow of the Member, customer or LP that specifically requests that Liquidnet conduct the testing. There are certain markets where Liquidnet cannot execute test trades; Member Services personnel will notify participants of these markets upon request.

Testing of new and updated algo types

Liquidnet can test new and updated algo types on a principal basis, subject to the following conditions:

- The algo type is configured to prevent any interaction with the Liquidnet ATSs, MTFs and other internal crossing functionality
- Liquidnet selects a stock for which Liquidnet does not have a Member or customer algo order at the time
- The quantity of the order is limited to minimize any market risk to Liquidnet
- Liquidnet promptly closes out any resulting positions, subject to the same restrictions.

Each Liquidnet entity conducts this testing for its own region. The purpose for testing algo types in this manner is to enhance the performance of new and updated algo types for the benefit of Members and customers and to detect and address any potential risks relating to algo performance.

Section 12.11 Liquidity Watch; automated market surveillance for Canadian equities; match breaks

Liquidity Watch

Liquidity Watch is a group comprised of employees within Liquidnet's Compliance Business Intelligence and Trade Coverage Groups that monitors for Member non-compliance with applicable laws and regulations and the Liquidnet Trading Rules . Liquidity Watch maintains metrics for each participant on their system usage which may aid in identifying patterns of conduct that are adverse to other system users. Trade Coverage personnel and Liquidnet trading desk and algo personnel have access to these metrics. Liquidity Watch also documents and researches participant investigation requests and recommends appropriate follow-up

Liquidnet may terminate the Subscriber Agreement with any participant whose traders utilize Liquidnet's services in a manner inconsistent with applicable laws and regulations, and these Trading Rules or system usage protocols or suspend or terminate a participant's access to Liquidnet's services.

Automated market surveillance for Canadian equities

Liquidnet has implemented automated market surveillance for trading in Canadian equities. The offending activities detected by automated market surveillance are as follows:

- A Member moves a match from outside to in the pool and then to outside shortly afterwards.

In response to a detected offending activity, the system may, depending upon the facts of the particular situation, automatically block the offending Member from matching in the applicable symbol for the remainder of the day. The system notifies the Member and the affected contra when an automated block has been implemented. Automated blocking is an objective function of pre-determined system logic is not dependent upon the Member involved.

A Liquidnet MSR can remove a block instituted in accordance with this sub-section if Liquidnet determines that the Member acted in accordance with Liquidnet protocols.

Automated market surveillance for conditional orders by automated routing customers and LPs

When an automated routing customer or LP that transmits conditional orders fails to firm-up for a configured number of times within a configured time period in a particular symbol, the automated routing customer or LP is automatically blocked from matching or executing in that symbol with any contra-indications in the negotiation system and/or from matching or executing in that symbol with any contra-side orders in Liquidnet H2O for a configured time period.

The purpose of the blocking described above is to address a technical or workflow issue that results in a pattern of excessive firm-up failures.

Liquidnet sets default configurations for automated routing customers and LPs and can modify them for a specific automated routing customer or LP (for example, based on the overall firm-up rate of the customer or LP). Liquidnet can update the default configurations from time-to-time. Upon request, Liquidnet will notify any customer or LP regarding its applicable configurations at that time.

Match breaks

Liquidnet Member Services personnel can break a match at the request of a Trade Coverage representative when specifically requested by the Member covered by the Trade Coverage representative, or when the Trade Coverage representative reasonably determines that the contra is not responsive on a match and the contra's lack of responsiveness has caused or will cause frustration to the Member covered by the Trade Coverage representative, subject to the following conditions:

- The Trade Coverage representative is required to notify the contra's Trade Coverage representative when proposing a match break.

- The contra's Trade Coverage representative is required to contact the contra; if the contra is not available, or the contra indicates that he will not take action on the match, the contra's Trade Coverage representative should notify the Member's Trade Coverage representative, at which point the Member's Trade Coverage representative is permitted to request that an MSR break the match.
- In all cases, the Trade Coverage representative is required to input through log the request for the match break, including the reasons for requesting the match break.
- The request is received by Member Services, which can then break the match.

A match break prevents the two specific indications from matching for the remainder of the trading day. At the request of a Member, Liquidnet can undo a match break.

Symbol blocks

At the request of a Member, Liquidnet can block the Member from matching on a specific symbol with a specific contra based on a negative trading experience with the contra in that symbol. Liquidnet automatically removes any symbol block at the end of the fifth trading day after the date on which the symbol block was first instituted.

Section 12.12 Information on Liquidnet

Traders and other Member and customer personnel should not disseminate outside Liquidnet any information about Liquidnet indications and negotiations. Liquidnet may terminate the Subscriber Agreement with any Member or customer whose traders or other personnel violate this restriction or suspend or terminate the Member's or customer's access to Liquidnet's services.

Section 12.13 Liquidnet Member Services

Liquidnet has Member Services support available in New York, London, Toronto, Hong Kong, Sydney and Tokyo. These groups handle product support, trade support, and implementation. Member Services personnel in Toronto handle trade support and implementation but not product support.

Section 12.14 Training

Liquidnet has an on-site training program for all new traders and in connection with new releases of the Liquidnet desktop application. In addition, Liquidnet sales personnel are available upon request to provide additional on-site system training to traders. Liquidnet Member Services is also available by telephone to answer any questions that traders have regarding the system and Liquidnet's services. It is important that traders go through the on-site training program and take advantage of any additional training that they require so that they are comfortable with using the system.

Section 12.15 Versions of Liquidnet software

Liquidnet reserves the right to sunset versions of the desktop application that are older than eighteen (18) months. Liquidnet will contact affected Members to initiate software upgrades prior to sunsetting older versions of the desktop application.

Section 12.16 Pilot releases; release process

Liquidnet may release new versions of the desktop application and other software upgrades on a pilot basis prior to full roll-out. Further, for risk management purposes and to validate functionality, Liquidnet may introduce new versions of the desktop application and other software upgrades to different groups of customers sequentially over a period of time. Liquidnet typically seeks to complete the process described in the preceding sentence over a period of four to six weeks.

Section 12.17 Temporary configuration changes

Liquidnet can modify a default or custom configuration for one or more participants on a temporary basis to address unusual market conditions or otherwise for risk management purposes.

Section 12.18 Additional information

For additional information, please refer to Section 1.17 of these Trading Rules.