

B.11

CIRO, Marketplaces, Clearing Agencies and Trade Repositories

B.11.2 Marketplaces

B.11.2.1 Nasdaq CXC Limited – Notice of Proposed Changes and Request for Comment

NASDAQ CXC LIMITED

NOTICE OF PROPOSED CHANGES AND REQUEST FOR COMMENT

Nasdaq CXC Limited (Nasdaq Canada) has announced plans to implement the changes described below subject to regulatory approval. Nasdaq Canada is publishing this Notice of Proposed Changes in accordance with the requirements set out in the Process for the Review and Approval of Rules and the Information Contained in Form 21-101F1 and the Exhibits Thereto (Exchange Protocol). Pursuant to the Exchange Protocol, market participants are invited to provide the Commission with comment on the proposed changes.

Comment on the proposed changes should be in writing and submitted by October 9, 2023 to:

Market Regulation Branch
Ontario Securities Commission
20 Queen Street West, 22nd Floor
Toronto, ON M5H 3S8
Email: marketregulation@osc.gov.on.ca

And to

Matt Thompson
Chief Compliance Officer
Nasdaq CXC Limited
25 York St., Suite 900
Toronto, ON M5J 2V5
Email: matthew.thompson@nasdaq.com

Comments received will be made public on the OSC website. Upon completion of the review by OSC staff, and in the absence of any regulatory concerns, notice will be published to confirm the completion of Commission staff's review and to outline the intended implementation date of the changes.

NASDAQ CXC LIMITED

NOTICE OF PROPOSED CHANGES

Summary of Proposed Changes

BACKGROUND

The PureStream Order Type was introduced on the CXD Trading Book on October 3, 2022. PureStream currently supports two main order types; Liquidity Seeking Orders (LS Orders) that primarily seek liquidity from other LS Orders at the mid-point of the NBBO and Liquidity Transfer Rate Orders (LTR Orders) that specify a liquidity transfer rate indicating the percentage of volume of a Reference Trade¹ that the member is willing to trade. LS Orders are primarily used by Members seeking out size discovery opportunities and to immediately trade at the mid-point of the NBBO. LTR Orders offer Members the opportunity to enter orders that are paired into Streams generating matches in response to Reference Trades. LTR Orders therefore enable Members to receive a selected rate of participation of consolidated traded volume for a security while minimizing market impact.

With the electrification of trading, average trade sizes have decreased with a significant number of securities now trading in one or two Board Lot size increments. This has resulted in a majority of PureStream trades being very small sized Odd Lot trades. A high number of low volume Odd Lot matches create challenges for Members as there is an administrative burden placed on back-office processing and because each trade incurs its own regulatory fee irrespective of the size of the trade. For most securities this regulatory fee is disproportionate compared to the notional size of a small Odd Lot trade which in turn increases trading costs for Members.

DESCRIPTION OF PROPOSED CHANGE

To address these challenges, Nasdaq Canada is proposing to introduce new functionality changing the way PureStream LTR orders operate today. Instead of matches being generated in real-time in response to Reference Trades, the trading system will calculate a Volume Weighted Average Price of the volume that would have been traded immediately after a Reference Trade ("Volume Considered") until a minimum aggregated volume level is reached ("Minimum Stream Quantity"). The size of the MSQ will be determined by the Exchange and can either be applied across the universe of all securities or on a security-by-security basis. When the aggregate of Volume Considered ("LTR Calculated Volume") meets or exceeds the MSQ, a trade will be printed on PureStream at the Volume Weighted Average Price of the LTR Calculated Volume ("LTR Calculated Price"). The trade that is printed when this occurs will be for the size of the LTR Calculated Volume at the LTR Calculated Price (LTR Calculated Match).

If the size of a Reference Trade reported results in the LTR Calculated Volume exceeding the size of a Board Lot the system will print 99 shares and carry forward any remaining shares not traded as a new LTR Calculated Volume at their LTR Calculated Price. When other Reference Trades are reported resulting in additional Volume Considered that meet or exceed the MSQ another LTR Calculated Match will be printed.

When the volume from a Reference Trade results in Volume Considered that is equal to or greater than a Board Lot, any LTR Calculated Volume calculated by the Trading System before the Reference Trade is reported will print at the LTR Calculated Price immediately prior to the Board Lot or Mixed Lot being printed at its Reference Price. By trading the LTR Calculated Volume first there is assurance that the Board Lot or Mix Lot trade does not trade-through a Protected Bid or Protected Offer and does not set a Last Sale Price outside the NBBO.

Finally, a trade will be printed for the LTR Calculated Volume at the LTR Calculated Price if a Stream is terminated.

Examples

For clarity, examples of each scenario described are provided below. For the purposes of these examples, 70 shares are being used as the MSQ.

A. LTR Calculated Volume meets or exceeds the Minimum Stream Quantity resulting in an LTR Calculated Match

When the LTR Calculated Volume meets or exceeds the size of the MSQ it will generate an LTR Calculated Match for the size of the LTR Calculated Volume at the LTR Calculated Price.

¹ A Reference Trade is defined as:

- Any trade of at least one standard trading unit of a particular security displayed in a consolidated market display other than a reported trade resulting from a match between two PureStream orders (subject to certain exceptions including a Basis Order, Call Market Order, Closing Price Order, Special Terms Order unless the Special Terms Order has executed with an order or orders other than a Special Terms Order or a Volume Weighted Average Price Order.

Example 1 – 15% LTR

RT Size	RT Price	RT Time	Volume Considered	LTR Calculated Volume	LTR Calculated Price
100	\$3.00	10.00.00	15	15	\$3.0000
200	\$2.75	10.01.00	30	45	\$2.8333
200	\$2.50	10.02.00	30	75	\$2.7000

In this example the third Reference Trade generates an LTR Calculated Volume that exceeds the 70 share MSQ. The system therefore generates an LTR Calculated Match for 75 shares traded at the LTR Calculated Price of \$2.7000.

Example 2 – 15% LTR

RT Size	RT Price	RT Time	Volume Considered	LTR Calculated Volume	LTR Calculated Price
100	\$3.00	10.00.00	15	15	\$3.0000
200	\$2.75	10.01.00	30	45	\$2.8333
300	\$2.50	10.02.00	45	90	\$2.6667

In this example the third Reference Trade generates an LTR Calculated Volume that exceeds the 70 share MSQ (90 shares). The system therefore generates an LTR Calculated Match for 90 shares traded at the LTR Calculated Price of \$2.6667.

Example 3 – 15% LTR

RT Size	RT Price	RT Time	Volume Considered	LTR Calculated Volume	LTR Calculated Price
100	\$3.00	10.00.00	15	15	\$3.0000
100	\$2.75	10.02.00	15	30	\$2.8750
600	\$2.50	10.05.00	90	120	\$2.6316

In this example the third Reference Trade generates an LTR Calculated Volume that exceeds the MSQ and is more than a standard trading unit (120 shares). The system therefore generates an LTR Calculated Match of 99 shares at the LTR Calculated Price of \$2.6316 and carries over the residual LTR Calculated Volume of 21 shares with an LTR Calculated Price of \$2.50.

Example 4 – 15% (Continues from Example 3)

RT Size	RT Price	RT Time	Considered Volume	LTR Calculated Volume	LTR Calculated Price
Residual LTR Calculated Volume and Price				21	\$2.5000
200	\$2.75	10.07.00	30	51	\$2.6471
200	\$3.00	10.08.00	30	81	\$2.7778

In this example which continues from Example 3, there is a residual LTR Calculated Volume of 21 shares (120 shares – 99 shares) with an LTR Calculated Price of \$2.50. The second Reference Trade generates an LTR Calculated Volume that exceeds the size of the MSQ (81 shares). The system therefore generates an LTR Calculated Match for 81 shares traded at the LTR Calculated Price of \$2.7778.

B. The Reference Trade Results in a Board Lot or Mixed Lot Increment

When the resulting Volume Considered from a Reference Trade results in a Board Lot or Mix Lot size share increment, the LTR Calculated Volume will print at the LTR Calculated Price first and immediately prior to the Board Lot or Mix Lot being printed at its Reference Price.

Example 5 – Board Lot Sized Reference Price

RT Size	RT Price	RT Time	Considered Volume	LTR Calculated Volume	LTR Calculated Price
100	\$3.00	10.00.00	15	15	\$3.0000
200	\$2.75	10.01.00	30	45	\$2.8333
100	\$2.50	10.02.00	15	60	\$2.75
2000	\$2.55	10.03.00	300		

In this example there is an LTR Calculated Volume of 60 shares when a 2,000 share Reference Trade executes at \$2.55. Given the Stream has an LTR of 15%, this will result in a PureStream trade of 300 shares or 3 Board Lots. To ensure that this trade does not trade-through the market or set the Last Sale, the LTR Calculated Volume of 60 shares will execute at the LTR Calculated Price of \$2.75 first followed by the 300 shares will execute at the same price as the Reference Trade or \$2.55.

Example 6 – Mixed Lot Sized Reference Price

RT Size	RT Price	RT Time	Considered Volume	LTR Calculated Volume	LTR Calculated Price
100	\$3.00	10.00.00	15	15	\$3.0000
200	\$2.75	10.01.00	30	45	\$2.8333
100	\$2.50	10.02.00	15	60	\$2.75
1500	\$2.55	10.03.00	225		

In this example there is an LTR Calculated Volume of 60 shares when a 1,500 share Reference Trade executes at \$2.55. Given the Stream has an LTR of 15%, this will result in a PureStream trade of 225 shares. To ensure this trade does not trade-through the market or establish a new Last Sale Price the LTR Calculated Volume of 60 shares will execute at the LTR Calculated Price of \$2.75 first followed by the 225 shares that will execute at the same price as the Reference Trade or \$2.55.

C. Generating an LTR Calculated Match (Trade) when a Stream is Terminated

An LTR Calculated Match is generated when a stream is terminated.

Example 7 – 15% LTR

RT Size	RT Price	PO (Buy)	PO (Sell)	Considered Volume	LTR Calculated Volume	LTR Calculated Price
100	\$3.00	09	79	15	15	\$3.0000
200	\$2.75	09	79	30	45	\$2.8333
100	\$2.50	09	79	15	60	\$2.7500
Action: 09 decides to cancel its buy order						

In this example the LTR Calculated Volume for the orders paired in the stream (09 buying and 79 selling) is 60 shares with an LTR Calculated Price of \$2.75. Member 09 decides to cancel its buy order. The stream is cancelled after this happens. An LTR Calculated Match is generated for 60 shares at \$2.75 - the LTR Calculated Volume and LTR Calculated Price at the time of cancellation.

Expected Date of Implementation

It is expected that the Proposed Change will be introduced after regulatory approval has been received.

Rationale and Relevant Supporting Analysis

The growth in electronic trading has increased the amount of natural institutional order flow that is handled by algorithmic trading strategies. As a result, it is more and more difficult for these participants to find meaningful liquidity with which to trade and often they are compelled instead to enter only small size orders in the market over long periods of time in order to mitigate price impact. Because of this trend, at any one time there is only a small size of a total order that is available to trade while the residual size of the order is held back unable to be interacted with or accessed. As a result, an order's posted liquidity represents only a fraction of what is available to trade. This not only leads to lost opportunities for natural contra-side orders to find one another but also results in higher execution costs for both participants as each side must often pay the cost of crossing the bid-ask spread.

PureStream's unique market structure has been designed to specifically address the challenges of finding meaningful liquidity and minimizing market impact. PureStream therefore is designed to be a solution for institutional accounts and the dealers that manage their order flow. By prioritizing order pairing (and in turn matching) based on LTR instead of price, PureStream provides participants with a unique trading option ensuring they receive a selected rate of participation of consolidated traded volume for a security while at the same time minimizing market impact. By separating the price discovery process from the liquidity discovery process, PureStream enables algorithmic orders to search, find and yield more liquidity faster without price impact. Furthermore, PureStream minimizes the number of counterparties with which a large order trade against. This in turn helps minimize information leakage.

As noted above given the current market model a majority of PureStream trades are small sized Odd Lot orders as a result of the average trade size of most Reference Trades also being small sized. Large numbers of low volume Odd Lot matches create inefficiencies because of increased administrative burden placed on back-office processing for Members and because trades incur the same regulatory fee irrespective of the size of the trade. For most securities this regulatory fee is disproportionate compared to the notional size of a small Odd Lot trade and in turn increases trading costs for Members. The Proposed Change will increase the average trade size of PureStream LTR orders and decrease trading costs for Members.

Expected Impact on Market Structure

The introduction of the Proposed Change will introduce the benefits of relieving some of the back office administrative burden created today while at the same time decreasing overall trading costs by incurring fewer regulatory trading fees. These new benefits will be brought to Members while continuing to facilitate matching between large size natural orders (particular institutional orders) that bring the benefits of lower trading costs and better execution outcomes by minimize market impact and information leakage.

Expected Impact on the Exchange's Compliance with Ontario Securities Law

There is no expected impact on Nasdaq Canada's compliance with Ontario Securities Law. We specifically address how the Proposed Change will continue to comply with the Order Protection Rule, not create confusion by setting the Last Sale Price or interfere with a fair and orderly market.

a) Order Protection Rule

While we do not anticipate there being many trade-throughs, there may be instances where the LTR Calculated Price is outside the NBBO. Should this be the case we note that Odd Lots are not protected under the Order Exposure Rule ("OPR" or "Rule"). As a result, printing the LTR Calculated Match outside of the NBBO would not violate the Order Exposure Rule. However, recognizing that Board Lot orders are Protected under OPR, the Proposed Change ensures compliance with the Rule by trading the LTR Calculated Volume immediately before trading a Board Lot or Mix Lot size trade in response to a Reference Trade of sufficient size. In this scenario the Board Lot or Mix Lot will trade in the context of the market at the same price as the Reference Trade.

b) Last Sale Price

Orders for less than a Standard Trading Unit are considered Special Term Orders under UMIR and Special Term Orders are eligible for an exception from setting the Last Sale Price under UMIR. Therefore, in the rare circumstance where an LRT Calculated Match prints outside the NBBO this will not result in a new Last Sale Price being established and will not create confusion for market participants. Where a PureStream orders trades as a Board Lot or Mix Lot size, it will qualify to set the Last Sale however its price will be the same price as the Reference Trade and be within the context of the market.

c) Fair and Orderly Markets

We believe that the benefits brought by the Proposed Change to participants far outweigh any concerns raised that may impact to a fair and orderly market. PureStream is designed to facilitate the trading objectives of a small number of market participants looking to trade a percentage of consolidated volume traded without market impact. While this order type will provide added value to these users by facilitating their trading objectives, is not anticipated that PureStream will garner significant market share. Furthermore, participants are familiar with, and recognize that the regulatory treatment of Odd Lot trades are not the same as Board Lot trades therefore there will not be the same expectations for compliance with rules applicable to Board Lots and therefore will not create confusion. Furthermore, all PureStream trades are marked uniquely as PureStream trades with their own market data identifier allowing participants to identify and distinguish PureStream trades from other trades on CXD. While we recognize there may be rare instances when an Odd Lot PureStream trade may trade-through, for these reasons we believe the number of these instances will be low not significant. This expectation is supported by the understanding that the number of trades for most securities resulting in Reference Trades is high and trade happen quickly. As a result, the likelihood that the LRT Calculated Price will be outside the NBBO will usually be low.

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Consultation and Review

Consultations were undertaken with Investment Dealers that are currently using PureStream or in the process of connecting to PureStream.

Estimated Time Required by Subscribers and Vendors (or why a reasonable estimate is not provided)

None.

Will Proposed Fee Change or Significant Change introduce a Fee Model or Feature that Currently Exists in other Markets or Jurisdictions

Yes. PureStream currently operates in the United States as an independent ATS and uses a Minimum Stream Quantity.

Any questions regarding these changes should be addressed to Matt Thompson, Nasdaq CXC Limited:
matthew.thompson@nasdaq.com, T: 647-243-6242

APPENDIX A

Text of the Public Interest Rule Change to Nasdaq Canada Trading Rules and Policies

1.1 Definitions and Interpretation

Liquidity Transfer Rate or "LTR"	The percentage of volume specified in a PureStream Order to be matched in response to a Reference Trade or against a Liquidity Seeking Order or at the mid point of the NBBO
LTR Calculated Price	The Volume Weighted Average Price of all Volume Considered.
LTR Calculated Match	A trade that is printed at the LTR Calculated Price for the LTR Calculated Volume when either: <ul style="list-style-type: none"> The LTR Calculated Volume meets or exceeds the MSQ size, or A Stream is terminated
LTR Calculated Volume	The aggregate of Volume Considered.
Minimum Stream Quantity	The minimum LTR Calculated Volume that must be met or be exceeded for a PureStream trade to be printed.
Stream	When at least two or more PureStream Orders are paired with one another.
Volume Considered	The number of shares considered by a Stream's LTR multiplied by the volume of a Reference Trade.

5.6.1 Order Types Book

ORDER TYPE	DEFINITION
PureStream Order	"PureStream Order" means an order meeting the PureStream Minimum Order Size to: <p>a) buy a security to be executed at the price of Reference Trades based on its specified LTR; or</p> <p>b) sell a security to be executed at a price of Reference Trades based on its specified LTR.</p>