

TSX INC.

NOTICE OF PROPOSED AMENDMENTS AND REQUEST FOR COMMENTS

TSX Inc. (“**TSX**”) is publishing this Notice of Proposed Amendments and Request for Comments in accordance with the “Process for the Review and Approval of Rules and the Information Contained in Form 21-101F1 and the Exhibits Thereto”.

Market participants are invited to provide comments on the proposed changes. Comments should be in writing and delivered by November 16, 2020 to:

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Email: tsxrequestforcomments@tsx.com

A copy should also be provided to:

Market Regulation Branch
Ontario Securities Commission
20 Queen Street West
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Comments will be made publicly available unless confidentiality is requested. Upon completion of the review by Commission staff, and in the absence of any regulatory concerns, a notice will be published to confirm Commission approval.

Background

TSX introduced the Market-On-Close (“**MOC**”) facility in 2004 to allow participating organizations to execute MOC orders on TSX listed securities at the end of the regular trading session. The MOC facility derives the official closing price for eligible TSX listed equity securities and is a vital source of liquidity for institutional agents and their clients. Operating as an electronic call market, the MOC facility acts as a multilateral source of liquidity, allowing large volumes to be traded with reduced price impact. The closing price set by the MOC is the industry benchmark for closing prices in Canada, and is utilized for many different purposes, including net asset value calculations by fund managers, portfolio and index rebalancing activities, and benchmarks for index related securities, swaps and options trades. The rise of passive investing and exchange traded funds over the last few years has resulted in increased demand within closing auctions globally and serves to highlight the growing importance of closing auction liquidity and pricing.

Currently, MOC market and MOC limit orders can be entered into the MOC book from 7:00 a.m. to 3:40 p.m. At 3:40 p.m. a single MOC imbalance message is published detailing the size and side of closing order imbalances across each MOC eligible symbol. Once the 3:40 p.m. MOC imbalance is published, offsetting MOC limit orders can be entered into the MOC book on the opposite side of the imbalance (if the symbol has an imbalance). Between 3:40 p.m. and 4:00 p.m. MOC Limit orders can be no greater in size than the size of the imbalance, and the limit price must be at or within the Price Movement Extension (“**PME**”) percentage (3%) or 5 ticks of the Last Sale Price. Closing offset orders can be entered into the MOC book on either side of the market from 7:00 a.m. to 4:00 p.m. If there is a 4:00 p.m. MOC imbalance published due to a price movement extension, offsetting PME MOC limit orders¹ can be entered between 4:00 p.m. and 4:10 p.m.

¹ Offsetting PME LOC orders are accepted provided that: i) opposite side to the published imbalance; ii) volume must not exceed the published imbalance; and iii) limit price must be between the Last Sale Price and CPA percentage.

There are no minimum order sizes required, and MOC market, MOC limit and closing offset orders may be entered with board lot, mixed and odd lot volumes.

Overview of Proposed Amendments

TSX is proposing changes to the TSX Rule Book and to certain TSX marketplace functionality to allow for the new MOC model (collectively, the “**Proposed Amendments**”).

The following table and diagram provides an overview of the Proposed Amendments to the MOC facility:

Table 1 - Existing MOC vs Proposed MOC - Changes and Rationale

CHANGE	EXISTING MOC	PROPOSED MOC	RATIONALE
Increase imbalance message content and frequency of dissemination	Single imbalance message at start of MOC Imbalance Period (3:40p.m.).	Imbalance message sent at set time intervals from the start of the MOC Imbalance Period (3:50 p.m.) to the close (4:00 p.m.).	Increased content and frequency will add transparency to MOC and provide clients additional insights into the MOC book.
	4 existing fields: 1. Symbol 2. Reference Price 3. Imbalance Side 4. Imbalance Volume	Added 6 fields in addition to existing: 1. Paired Volume 2. Market Order Imbalance Volume 3. Market Order Imbalance Side 4. Near Indicative Closing Price 5. Far Indicative Closing Price 6. Price Variation Indicator	
MOC Imbalance Period	MOC Imbalance Period starts at 3:40p.m.	MOC Imbalance Period start at 3:50p.m.	Later start time aligns with North American standards. Increases flexibility by allowing for entry of MOC orders and LOC without restriction on price, size or side.
	No MOC orders allowed.	New MOC orders are allowed. No MOC order cancels or modifications permitted.	
	LOC orders need to be on the opposite side, less than size of imbalance and limit price at or within the PME % or 5 ticks of the Last Sale Price.	New LOC orders permitted with no restrictions. No LOC order cancels permitted. Modifications to LOC order price only permitted to more aggressive	Increases flexibility by allowing aggressive price amends.

CHANGE	EXISTING MOC	PROPOSED MOC	RATIONALE
	No LOC order cancels or modifications contributing to imbalance.	price.	
Introduction of MOC Freeze Period	No MOC Freeze Period.	<p>MOC Freeze Period prior to close with a randomized start time as determined by TSX.</p> <p>New LOC orders allowed, will re-price to Reference Price before close if more aggressive for purposes of calculating the calculated closing price. At close of the MOC Freeze Period, LOC orders will be reprice to the closing reference price if more aggressive. No cancels or modifications allowed.</p>	<p>New MOC Freeze Period designed to mitigate volatility and help prevent unexpected price and imbalance movements leading up to the close.</p> <p>Randomized start time to mitigate speed advantages.</p>
Remove Closing Offset order type	Closing Offset order type available.	Removal of Closing Offset order type.	Closing Offset order type becomes redundant and works counter to the intent of the new MOC Freeze Period. Its removal simplifies the proposed MOC.
Support for Self-Trade Management	No support for self-trade management during MOC.	Support for suppression of MOC executions from tape where MOC executions have matching self-trade prevention keys from the same broker.	This enhancement will provide relief from workflow burdens introduced by incidental wash trades within the MOC.

Diagram 1 – Visualization of new model

IMBALANCE MESSAGE CONTENT

1 Current Fields	ADDED NEW FIELDS
<ul style="list-style-type: none"> • Symbol • Imbalance Side • Imbalance Volume • Reference Price 	<ul style="list-style-type: none"> • Paired Volume • Market Order Imbalance Side • Market Order Imbalance Volume • Near Indicative Closing Price • Far Indicative Closing Price • Price Variation Indicator



CHANGE FROM EXISTING TSX MODEL

There are no changes to the allocation of MOC trades or the manner and time in which closing trades are disseminated as part of the TSX MOC Modernization Proposal.

There are also no changes to the PME period messaging, functionality or its parameters as part of this MOC proposal. TSX will be evaluating the use of the PME period for some time after launch and may remove it if deemed not necessary. A subsequent regulatory filing will follow if it is determined that PME is no longer needed.

The Proposed Amendments to the TSX Rule Book and to certain TSX marketplace functionality are as follows:

- (i) MOC imbalance will be calculated and broadcast on each trading day at the start of the MOC Imbalance Period and again at set time intervals until the Closing Call. The MOC imbalance message will be published once more in the event of a delay of the closing call as specified by TSX;
- (ii) Introduction of a "MOC Imbalance Period" where TSX will:
 - a. allow the entry of new MOC market orders, with no right to cancel or amend;

- b. allow MOC limit orders to be entered in the MOC book on either side of the MOC Imbalance, at any volume and price. Allow no right of cancellation for MOC limit orders during the MOC imbalance period, and allow only for aggressive amendments. Aggressive amendments are defined as the raising of price for buy orders, or the lowering of price for sell and short orders;
- (iii) Introduction of a “MOC Freeze Period” where TSX will allow MOC limit orders to be entered at any price, volume and side. However, if a MOC limit order price is more aggressive than the MOC Reference Price, the order price would be automatically adjusted to the MOC Reference Price. This will be done continuously until the Closing Call.
- (iv) Introduction of a randomized interval bridging the “MOC imbalance period” and the “MOC Freeze Period” whereby this transition will occur across all securities at a random moment between a designated start time and a designated end time daily. The start time representing the earliest moment that the market state can transition to the freeze period and the end time representing the latest moment that the market state can transition to the freeze period.
- (v) Removal of the MOC Closing Offset order. Within the Proposed Amendments, this order type becomes redundant and works counter to the intent of the new MOC Freeze Period. The removal of the MOC Closing Offset order also serves to simplify the MOC facility.
- (vi) Introduction of support for self-trade management functionality within the MOC facility, executing orders with identical self-trade prevention keys from the same broker but suppressing those executions from the tape.

Please see **Appendix A** for a blackline of the Proposed Amendments.

Rationale for the Proposed Amendments

The basis for the Proposed Amendments began with client recommendations in late 2018 to examine the current MOC model and explore ways to increase the efficiency and usage of the facility. TSX embarked on a client consultation process to better understand the key concerns with the existing MOC facility and explore potential methods of improvement.

The consultation process served to identify three key areas of concern to address in renewing the MOC facility:

1. Transparency

Feedback revealed that traders need more information. The MOC facility currently provides a single imbalance message at 3:40 p.m., 20 minutes prior to the close of the regular trading session at 4:00 p.m. with limited content. TSX explored a new MOC communication framework to enable traders to make more informed decisions during the closing session, through increased frequency and additional content in imbalance messaging. As a result, the MOC imbalance message will now be broadcast at regular intervals and contain additional information. See section “New TSX MOC Imbalance Message” for details on the new fields to be added.

See the Proposed Amendments in Appendix A to Rule 4-902(b).

2. Alignment with Global Markets

The consultations also highlighted that the MOC facility is a global outlier. The MOC model differs from similar facilities offered by global exchanges in some important ways, including frequency and detail of information communicated during the trading day. The current novelty of today's MOC may discourage participation by some international and domestic investors.

TSX examined closing auction facilities around the world to gain an understanding of their unique features and incorporated our learnings in developing the new, improved MOC. Bringing the MOC model in line with global standards in an effort to increase participation. Furthermore, the TSX has realigned the phases of the closing auction to better coincide with US models.

See the Proposed Amendments in Appendix A to Rule 4-902(d).

3. Consistency of Execution

Finally, the consultations communicated that investors are not looking for surprises. Some participants cited inconsistencies when interacting with MOC liquidity that can erode participant confidence and deter them from utilizing the MOC as a consistent source of significant liquidity. One such example is the prevalence of closing prices that print in the opposite direction of the indicated imbalance.

The proposed changes to the MOC facility seek to attract increased participation at the close by introducing mechanics to increase flexibility, give more visibility into the MOC book, and dampen volatility. This will serve to enhance the user experience, reduce the cost of the trading large orders, and create reliable and representative closing price benchmarks, ultimately instilling confidence among traders and investors. The TSX feels that the increase in transparency inherent in the new model will serve to reduce the frequency and severity of unexpected events at the closing print. Further, the MOC Freeze Period was introduced to dampen volatility leading up to the close. Lastly, the TSX has proposed a randomized start to the freeze period, which may commence across all securities at any moment between the start of the randomized period and the end of the randomized period, this will provide time to react to MOC limit and market orders that are entered very close to the end of the Imbalance period. This feature is expected to decrease volatility during this transition and further foster reliability within the facility.

See the Proposed Amendments in Appendix A to Rule 4-902(e).

In addition to these three key areas, under the Proposed, TMX would like to make the following supporting changes to improve the MOC facility:

4. Removal of Closing Offset order type

MOC Closing Offset order type will be removed as it was deemed to be redundant with the LOC orders during the MOC Freeze Period, and the ability to cancel them works counter to the intent of the MOC Freeze Period.

See the Proposed Amendments in Appendix A to Rule 1-101 Definitions, Rule 4-902 (2)(a), and Rule 4-902 (3)(c).

5. Introduction of Self Trade Management in the MOC Facility

TSX also reviewed the list of previously requested client enhancements to the MOC facility within the context of the new MOC facility. As a result, we will also implement a self-trade management feature on orders executed in the MOC. Consistent with the current self-trade management

feature on orders during continuous trading, any matched orders in the MOC with matching self-trade keys from the same Participation Organization will execute, however, it suppresses the trade from market data feeds. This has been a main request by clients and should aid them greatly in preventing wash trades, which currently require manual cancellations at the end of the day. In order to utilize this feature, clients will need to populate the self-trade key field and select self-trade management (“EM”) as the self-trade option. Any other self-trade option, including cancel newest, cancel oldest, and decrement larger and cancel smaller, will continue to be ignored during MOC allocation to preserve the integrity and accuracy of MOC imbalance messages and calculated closing price.

6. *New TSX MOC Imbalance Message*

In order to increase transparency, TSX will introduce six new fields to the current imbalance message. Imbalance messages will be published every ten seconds beginning at the start of the MOC Imbalance Period until close.

Imbalance messages will be disseminated on the same market data feeds as they are today, which are all Level 1 and Level 2 real-time market data feeds.

The following six fields will be added to the imbalance message. Together with the existing four fields, the new MOC imbalance message will have a total of ten fields.

New Imbalance Message Field	Information Conveyed
Paired Volume	The number of MOC and LOC shares that are able to be matched at the Reference Price.
Market Order Imbalance Volume	Indicates the share Imbalance when considering MOC orders only. Note this will not change from MOC Freeze Period as MOC orders are not allowed during this time.
Market Order Imbalance Side	Side (buy or sell) of the Market Order Imbalance Volume.
Near Indicative Closing Price	The calculated closing price that will maximize the number of shares matched based on on-close orders (MOC, LOC, COO) and visible continuous market orders.
Far Indicative Closing Price	The calculated closing price that will maximize the number of shares matched based on closing interest only (MOC, LOC, COO). This calculation excludes continuous market orders.
Price Variation Indicator	This field indicates the absolute value of the percentage of deviation of the Near Indicative Closing Price from the Reference Price. This will alert traders of symbols that may close outside of the volatility parameters and encourage offsetting liquidity.

Details on technical changes and examples are available in the [TMX MOC Proposal – Detailed Guide](#) on the [TMX website](#).

Expected Date of Implementation

The Proposed Amendments are expected to be implemented following receipt of regulatory approval, and are expected to be implemented and available as early as mid Q2 2021, subject to stakeholder feedback and industry readiness and feedback.

Expected Impact

It is anticipated that the Proposed Amendments will increase transparency, align the MOC facility to the closing auction mechanisms of other global markets, and provide consistency of MOC execution. As such, TSX is of the view that the Amendments will support the maintenance of fair and orderly markets by strengthening the price formation process of the MOC facility and improving the overall user experience.

Expected Impact of Proposed Amendments on TSX's Compliance with Ontario Securities Law

The Proposed Amendments will not impact TSX's compliance with Ontario securities law and in particular the requirements for fair access and maintenance of fair and orderly markets.

Estimated Time Required by Members and Service Vendors to Modify Their Own Systems after Implementation of the Proposed Amendments

The Proposed Amendments are expected to have a positive impact on the market participants, and may increase participation in the MOC facility. Members would need to adjust their trading workflows and strategies to benefit fully from the new MOC order entry rules. This is not expected to be a large effort for the many members that are already participating in comparable US closing auctions. Service Vendors would also need to make technology changes to consume and display the new imbalance message content. In addition, changes to the MOC Imbalance Period and the introduction of the new MOC Freeze Period may also require technology changes.

Does the Proposed Amendments Currently Exist in Other Markets or Jurisdictions

Closing auctions are a common facility among global listing exchanges and many of the Proposed Amendments are similar to these other closing auctions in concept. For example, the publication of MOC order book information more than once during a closing auction exists in global models.

**APPENDIX A
BLACKLINE OF AMENDMENTS TO TSX RULE BOOK**

Part 1 - Interpretation

Rule 1-101 Definitions (Amended)

[...]

(2) In all Exchange Requirements, unless the subject matter or context otherwise requires:

[...]

~~“MOC Closing Offset Order” means a MOC Limit Order that only trades on the side of the MOC Book that is offsetting the imbalance, and never at a price within the market’s best bid and offer.~~

~~Added (April 18, 2019)~~

“MOC Imbalance Period” means the time period beginning at the start of the Special Trading Session and ending at the start of the MOC Freeze Period.

Added ([•], 2021)

“MOC Freeze Period” means the time period beginning at the end of the MOC Imbalance Period and ending at the Closing Call.

Added ([•], 2021)

[...]

“MOC Order” means a MOC Market Order, or a MOC Limit Order, ~~or a MOC Closing Offset Order.~~

Amended (April 18, 2019 and [•], 2021)

[...]

“MOC Reference Price” means the mid-point between the bid price and the ask price on the Exchange.

Added ([•], 2021)

[...]

Rule 4-902 Market-On-Close

[...]

(2) MOC Order Entry

- (a) MOC Market Orders and MOC Limit Orders may be entered, cancelled and modified in the MOC Book on each Trading Day from 7:00 a.m. until the time the first MOC Imbalance is broadcast.
~~MOC Closing Offset Orders may be entered, cancelled and modified in the MOC Book on each Trading Day from 7:00 a.m. until the Closing Call.~~

~~MOC Market Orders and MOC Limit Orders that are included in any MOC Imbalance broadcast may not be cancelled or modified after that MOC Imbalance is broadcast.~~

(b) The MOC Imbalance is calculated and broadcast on each Trading Day at ~~twenty minutes before the closing time~~the start of the MOC Imbalance Period until the Closing Call at set time intervals as determined by the Exchange and again in the event of a delay of the Closing Call as specified by the Exchange.

(c) **Repealed (April 19, 2010)**

(d) ~~Following the broadcast of a MOC Imbalance, MOC Limit Orders may be entered in the MOC Book on the contra side of the MOC Imbalance. MOC Limit Orders not included as part of that MOC Imbalance broadcast may be cancelled subject to established time constraints as specified by the Exchange. MOC Closing Offset Orders may continue to be entered in the MOC Book on either side of the MOC Imbalance.~~During the MOC Imbalance Period,

(i) only MOC Market Orders, and MOC Limit Orders may be entered in the MOC Book.

(ii) MOC Market Orders entered cannot be cancelled or modified.

(iii) MOC Limit Orders entered cannot be cancelled, and the price of the MOC Limit Orders may only be modified to a more aggressive buy price or sell price, as the case may be.

(e) During the MOC Freeze Period,

(i) only MOC Limit Orders may be entered in the MOC Book.

(ii) MOC Limit Orders cannot be cancelled or modified.

(iii) if the buy price or sell price, as the case may be, of the MOC Limit Order is more aggressive than the Reference Price, such aggressive price will be deemed to be the Reference Price for purposes of determining the Calculated Closing Price.

(f) In the event of a delay of the Closing Call for a MOC Security, MOC Limit Orders may be entered in the MOC Book for such security on the contra side of the subsequent MOC Imbalance for a set period of time specified by the Exchange. ~~Pursuant to paragraph (d), MOC Limit Orders entered during the delay may be cancelled during this time period.~~

Amended ([•], 2021)

(3) Closing Call

[...]

(c) Orders shall execute in the Closing Call in the following sequence:

(i) MOC Market Orders shall trade with offsetting MOC Market Orders entered by the same Participating Organization, according to time priority, provided that neither order is an unattributed order; then

- (ii) MOC Market Orders shall trade with offsetting MOC Market Orders, according to time priority; then
- (iii) MOC Market Orders shall trade with offsetting limit orders in the Closing Call entered by the same Participating Organization, according to time priority, provided that neither order is an unattributed order; then
- (iv) MOC Market Orders shall trade with offsetting limit orders in the Closing Call, according to time priority; then
- (v) limit orders in the Closing Call shall trade with offsetting limit orders in the Closing Call entered by the same Participating Organization. Limit orders are prioritized by MOC Limit Orders and displayed limit orders, then dark limit orders, ~~then MOC Closing Offset Orders.~~ Within those categories they are then matched according to time priority, provided that neither order is an unattributed order; then
- (vi) remaining orders in the Closing Call shall trade according to time priority.

[Amended \(10/1, 2021\)](#)