

TSX INC.

NOTICE OF PROPOSED CHANGES AND REQUEST FOR COMMENTS

Dynamic Order Protection Rule Repricing

TSX Inc. ("TSX") is publishing this Notice of Proposed Changes 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 March 25, 2019 to:

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300-100 Adelaide Street West
Toronto, Ontario M5H 1S3
Email: tsxrequestforcomments@tsx.com

A copy should also be provided to:

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

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, notice will be published to confirm completion of Commission staff's review and the Commission's approval.

Background

TSX is seeking to introduce further enhancements to the options available to participants for complying with the Order Protection Rule ("OPR") defined in National Instrument 23-101 ("NI 23-101") by adding dynamic repricing to the OPR Reprice feature.

Details and Rationale

Dynamic repricing will provide participants with increased flexibility and options for managing their resting OPR Reprice orders. It will also help clients ensure that their OPR Reprice orders are always at the more aggressive of their limit price and the best quote possible, subject to the Protected National Best Bid and Offer ("PNBBO") and OPR requirements, maximizing opportunities for order execution.

Currently, orders marked with the OPR Reprice instruction that would trade through or lock or cross the PNBBO upon entry are automatically repriced to one tick inside the opposite side PNBB/O. Orders are repriced only upon order entry and are not repriced with subsequent changes to the PNBBO.

By introducing dynamic repricing for the OPR Reprice feature, TSX is proposing to enhance the current OPR reprice mechanism as follows (the "Proposed Amendments"):

- Automatically reprice resting OPR Reprice orders more aggressively to their stated limit when an update to the PNBBO permits, allowing the order either to trade or to remain booked at the most aggressive price, as applicable.
- Where the repriced resting OPR Reprice order in this scenario was marked Post Only, the order will only book in accordance with existing Post Only logic but will not trade.
- When an order is repriced, it is assigned a new time priority based on the time each repricing occurs.
- When repricing multiple orders to the same price level, the time sequence for the repricing will be determined by each order's original timestamp or by the timestamp associated with the last repricing, whichever is later. For example, if resting buy OPR Reprice Order A had been entered at 10:00am and repriced upon entry to \$9.98, and resting buy OPR Reprice Order B had been entered at 10:03am and repriced to the same level, if both are then subsequently repriced to \$9.99, both will be assigned a new time priority based on the time of the repricing, with Order A maintaining its time priority ahead of Order B.
- Dynamic OPR Repricing is available between 9:30 a.m. to 4:00 p.m. Outside of this time, orders will be booked at their limit price and will not reprice.

Expected Date of Implementation

The Proposed Amendments are expected to become effective in Q3 2019.

Expected Impact

The Proposed Amendments will allow clients increased flexibility in managing their resting OPR Reprice orders. OPR Reprice orders that are dynamically repriced will allow participants to ensure they continue to provide the best quote possible, and maximize opportunities for order execution. The Proposed Amendments also remove the need for clients to manage the subsequent repricing of their OPR Reprice orders as is necessary with the current OPR Reprice mechanism.

Expected Impact of Proposed Changes on the Exchange'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. TSX will continue to apply appropriate execution logic to ensure conformance with the OPR.

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

Based on current planned implementation timelines, TSX anticipates that at least 90 days will be provided between regulatory approval of the Proposed Amendments and implementation. This should be sufficient to allow adoption by those that wish to take full advantage of the enhanced OPR Reprice functionality. Accessing OPR Reprice feature will require little to no changes by Members or Service Vendors, as the OPR Reprice option already exists today.

Do the Changes Currently Exist in Other Markets or Jurisdictions

Dynamic repricing of OPR Reprice orders is an extension of the existing OPR Reprice functionality on TSX and TSX Venture Exchange. Similar repricing functionality currently applies to OPR Reprice orders on both Nasdaq CXC and CX2.

APPENDIX A
EXAMPLES INVOLVING DYNAMIC REPRICING FOR OPR REPRICE ORDERS

The following examples demonstrate the new proposed functionality for OPR Reprice orders:

Example 1: *Non-Post-Only OPR Reprice order is repriced when the Away BBO (ABBO) changes resulting in a trade*

Book as follows:

	Order Ref #	Order	Limit Price	Timestamp	Volume	BID	ASK
PNBBO						10.00	10.01
ABBO						10.00	10.05
TBBO						9.99	10.01
TSX	1	Buy Limit	9.99	10:00:01	1,000	9.99	
TSX	2	Sell OPR Reprice (Non-Post Only)	9.95	10:00:02	2,000		10.01
TSX	3	Buy Limit	9.98	10:00:09	5,500	9.98	

Action: ABB changes from 10.00 to 9.99, resulting in change in PNBB to 9.99.

Result: Order #2 reprices to its limit price of 9.95, trades against Order #1 for 1000 shares at 9.99, and books remaining 1000 shares with new timestamp at 10.00 to prevent locking with the ABB at 9.99. TBBO updates to 9.98 / 10.00. PNBBO updates to 9.99 / 10.00.

Example 2: *Post-Only OPR Reprice order is repriced when the ABBO changes, resulting in re-booking.*

Book as follows:

	Order Ref #	Order	Limit Price	Timestamp	Volume	BID	ASK
PNBBO						10.00	10.01
ABBO						10.00	10.05
TBBO						9.99	10.01
TSX	1	Buy Limit	9.99	10:00:01	1,000	9.99	
TSX	2	Sell OPR Reprice (Post Only)	9.95	10:00:02	2,000		10.01
TSX	3	Buy Limit	9.98	10:00:09	5,500	9.98	

Action: ABB changes from 10.00 to 9.99, resulting in change in PNBB to 9.99.

Result: Order #2 re-books at 10.00 with new timestamp. No trade occurs because order is marked Post Only. TBBO updates to 9.99 / 10.00. PNBBO updates to 9.99 / 10.00.

Example 3: Non-Post Only OPR Reprice order is repriced when the TBBO changes, resulting in a trade

Book as follows:

	Order Ref #	Order	Limit Price	Timestamp	Volume	BID	ASK
PNBBO						10.00	10.01
ABBO						10.00	10.05
TBBO						9.99	10.01
TSX	1	Buy Limit	9.99	10:00:01	1,000	9.99	
TSX	2	Sell OPR Reprice (Non-Post-Only)	9.95	10:00:02	2,000		10.01
TSX	3	Buy Limit	9.98	10:00:09	5,500	9.98	

Action: Order #4 to buy 1,000 shares @ 10.00 is entered on TSX. TBB updates to 10.00. PNBB remains unchanged at 10.00.

Result: Order #2 reprices to its limit price of 9.95 and trades 1,000 shares at 10.00 against Order #4. Order #2 books remaining 1,000 shares at 10.01 to prevent locking with ABB / PNBB of 10.00.

Example 4: Multiple Post Only OPR Reprice sell orders are repriced when the PNBO changes

Book as follows:

	Order Ref #	Order	Limit Price	Timestamp	Volume	BID	ASK
PNBBO						10.00	10.01
ABBO						10.00	10.05
TBBO						9.99	10.01
TSX	1	Buy Limit	9.99	10:00:01	1,000	9.99	
TSX	2	Sell OPR Reprice (Post-Only)	9.97	10:00:02	2,000		10.01
TSX	3	Buy Limit	9.98	10:00:09	5,500	9.98	
TSX	4	Sell OPR Reprice (Post-Only)	9.95	10:03:00	500		10.01

Action: Order #5 to sell 1,500 shares @ 10.00 marked DAO is entered on TSX at timestamp 10:05:00. The ABB updates to 9.99 shortly after at timestamp 10:05:00.002. PNBBO updates to 9.99 / 10.00.

Result: Order #5 is booked as a sell on TSX at 10.00. Upon update of the ABB to 9.99, Post Only OPR Reprice Order #2 reprices to 10.00 to remain passive, followed by the repricing of Post Only OPR Reprice Order #4 to the same price. Time priority for the sell orders is as follows: Order #5, Order #2, Order #4.

The new book is as follows (shaded cells reflect changes):

	Order Ref #	Order	Limit Price	Timestamp	Volume	BID	ASK
PNBBO						9.99	10.00
ABBO						9.99	10.05
TBBO						9.99	10.00
TSX	1	Buy Limit	9.99	10:00:01	1,000	9.99	
TSX	3	Buy Limit	9.98	10:00:09	5,500	9.98	
TSX	5	Sell Limit DAO	10.00	10:05:00	1,500		10.00
TSX	2	Sell OPR Reprice (Post-Only)	9.95	10:05:00.002	2,000		10.00
TSX	4	Sell OPR Reprice (Post-Only)	9.97	10:05:00.003	500		10.00