

TSX MOC MODERNIZATION

TMX Leading the Way Forward
for Canada's Markets





TMX is firmly committed to advancing the evolution of our capital markets to ensure Canada remains relevant, vibrant and competitive on the global stage, today and long into the future. In an environment where change is the only constant, all of our stakeholders, including market participants, individual investors and listed issuers, require adaptive and responsive solutions to gain a winning edge.

TMX is proud to announce our TSX MOC Modernization Proposal. This exciting vision for a new and improved Market on Close facility is the culmination of more than a year and a half of work by our team in close consultation with a wide range of participants across our client community. The goal of the new TSX MOC facility is to provide an improved trading experience for our clients and better serve their needs for enhanced liquidity at the close of the market and efficiency in determining Canada's closing prices. On behalf of our entire markets team at TMX, I want to sincerely thank all of those who participated in this important initiative designed to reimagine and ultimately reinvent a vital mechanism within our equities marketplace.

Kevin Sampson

President, Equity Trading, TMX

What is TSX MOC?

Introduced in 2004, TMX's Market On Close ("TSX MOC") facility plays a vital role in Canada's equities markets and broader financial services industry: setting the official closing price for eligible Toronto Stock Exchange (TSX) and select TSX Venture Exchange (TSXV) listed issues.

Operating as an electronic call market, the TSX MOC facility aims to provide equal access and opportunity for investors looking to source liquidity and participate in trades at the closing price, efficiency and accuracy in setting the closing price, and reduced volatility at the close.

Wide Implications

TSX MOC serves a wide range of stakeholders

TMX is the definitive source for equities closing prices in Canada. End-of-day valuations determined via the TSX MOC facility serve the industry in a variety of important ways, including:

- Net Asset Value ("NAV") calculations for the fund management industry
- Portfolio and index balancing valuations
- Benchmarks for index related securities, swaps and options trades
- Daily reference prices for retail investors, advisors, and media outlets

A collaborative effort

A client-first approach to improving TSX MOC

Financial markets continue to evolve at an unrelenting pace, and as a result, the day-to-day needs of investors and the challenges they face in remaining globally competitive in the midst of this ever-changing landscape are constantly shifting. The rise of passive investing and ETF trading over the last few years has resulted in increased trading volumes at the close of the market and serves to highlight the growing importance of the closing price as a benchmark.

In 2019, based on industry feedback, TMX's equity markets team embarked on a large-scale consultation process to explore ways in which we could improve the TSX MOC facility. TMX's ongoing commitment to providing fair and transparent markets for all participants requires a measured and thoughtful approach, considering the interests of the full scope of participants and gauging the potential impacts proposed changes will have on the broader ecosystem.

Our process gathered valuable insights from a cross-section of stakeholders, across Canada and globally, including representatives from buy-side and sell-side institutions as well as proprietary trading firms via surveys, open forums, advisory committees, and one-on-one discussions. TMX and all stakeholders were unified in the key objective; to build a world-class closing auction that effectively meets the liquidity and execution needs of Canadian and global investors.

AT A GLANCE*

69MM

Average Daily Shares
Traded in the TSX MOC

\$2.3B

Average Daily Value
Traded in the TSX MOC

932

Symbols Traded
in the TSX MOC

67

Firms Participated
in the TSX MOC

*Jan - June 2020

Confronting issues and finding solutions

The consultation process served to clearly identify three key areas to address in revamping the TSX MOC facility:

Transparency

▲ ISSUE

Traders need more information. TSX MOC currently provides a single imbalance message at 3:40 pm, 20 minutes prior to the close of the regular trading session at 4:00 p.m with limited content.

💡 ACTION

TMX explored a new TSX MOC communication framework to enable traders to make more informed decisions during the closing session, with increased frequency and additional content in messaging.

Alignment with global markets

▲ ISSUE

TSX MOC is a global outlier. The TSX 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 uniqueness of today's TSX MOC limits participation from international investors.

💡 ACTION

TMX examined closing auction facilities around the world to gain an understanding of their unique characteristics and incorporated our learnings in developing the new, improved TSX MOC. Bringing the TSX MOC model in line with global standards and adopting features most valuable to trading participants is designed to increase participation from outside of Canada.

Consistency of execution

▲ ISSUE

Investors are not looking for surprises. Some participants cited inconsistencies of TSX MOC liquidity which can erode participant confidence and deter them from utilizing the TSX MOC as a liquidity event.

💡 ACTION

The new TSX MOC facility seeks to attract increased investor participation at the close by introducing mechanics to increase flexibility, give more visibility into the MOC, and dampen volatility. This will serve to enhance the user experience and create reliable and representative closing price benchmarks, instilling confidence among traders and investors.

The New TSX MOC

PROPOSAL

TMX is confident that the significant efforts undertaken alongside our client community to reimagine our TSX MOC facility will reap wide-reaching and long-lasting benefits.

The new TSX MOC facility introduces three high level changes, each designed to address the issues of transparency, alignment with global markets, and consistency of execution.

IMBALANCE MESSAGE CONTENT

1 Current Fields

- Symbol
- Imbalance Side
- Imbalance Volume
- Reference Price

ADDED NEW FIELDS

- Paired Volume
- Market Order Imbalance Side
- Market Order Imbalance Volume
- Near Indicative Closing Price
- Far Indicative Closing Price
- Price Variation Indicator

1 Enhanced transparency

Increase imbalance message content and frequency of communication.

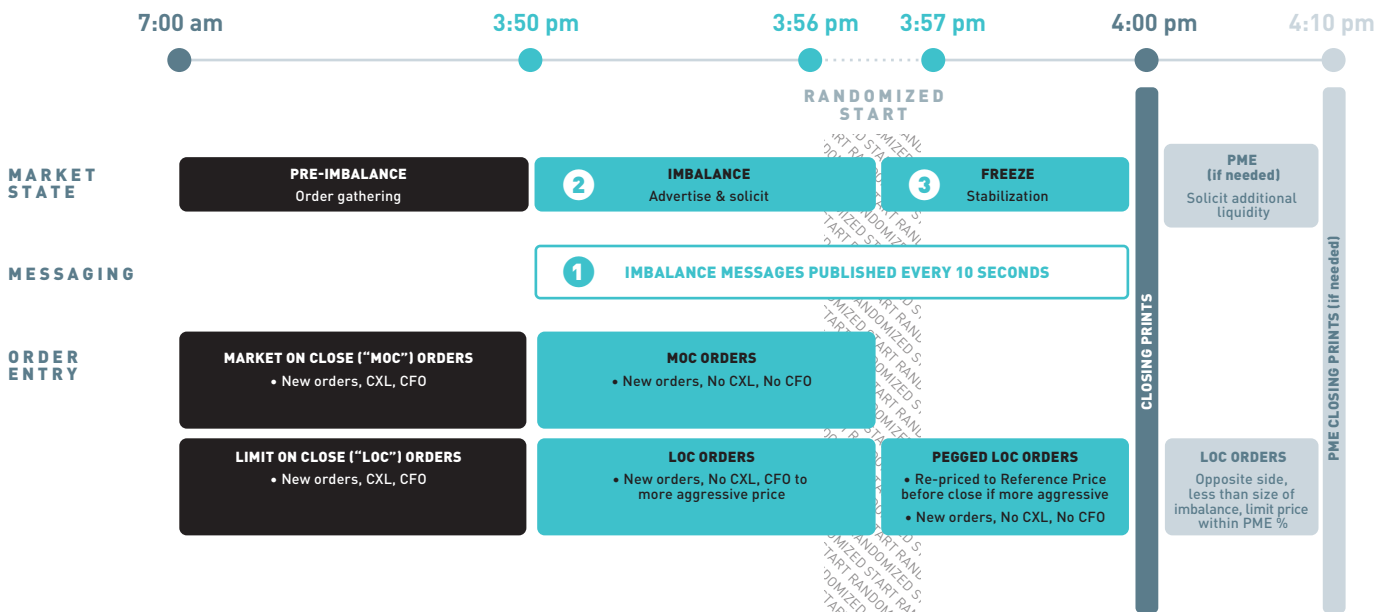
- Add 6 new fields of TSX MOC order book information (currently 4 fields only)
- Imbalance message to be sent every 10 seconds (currently sent only once)

2 Newly defined imbalance period to align with global models

- Imbalance period starts at 3:50 p.m. (currently 3:40 p.m.)
- Allow entry of new Market on Close orders, with no cancels or amends (currently no new Market on Close orders allowed)
- Allow entry of Limit on Close orders on either side and any volume, with no cancels and aggressive price amends only (currently limited to Limit on Close orders with side, volume and price restrictions)

3 New freeze period

Designed to mitigate volatility and help prevent unexpected price and imbalance movements. Randomized start time to mitigate speed advantages.



Next Steps

We intend to submit our TSX MOC Modernization proposal to regulators for approval and expect that it will be published for industry comments in Q4 2020. As part of the regulatory comment process and through ongoing stakeholder consultations, we will be soliciting input on industry readiness and assessing the full scope and scale of dependencies to determine an appropriate launch date for the new TSX MOC, with the earliest date being mid Q2 2021.

Join the conversation

- ▶ TMX invites all interested participants and stakeholders to review the detailed MOC proposal, [TSX MOC Proposal - Detailed Guide](#).
- ▶ We welcome all comments and suggestions as we finalize this proposal for an improved TSX MOC facility. Please reach out to your TMX account manager to provide any feedback or for more information.



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- *The growing significance of the close has heightened the importance of efforts to modernize the TSX MOC mechanism – to improve transparency and facilitate greater participation. ■*

Hubert De Jesus, Global Head of Market Structure and Electronic Trading

BlackRock

- *We commend TMX Group for engaging a diverse set of stakeholders to participate in a collaborative and iterative process to modernize the Canadian market-on-close (MOC). The new TSX MOC facility will create more transparent opportunities for long-term investors, both domestic and global, to react to MOC imbalances. ■*

Rob Gouley
Principal, Trading

OMERS

Brent Robertson
Managing Director, Trading

OMERS

- *The collaboration with TMX regarding the overall process has been exceptional. The proposal addresses the opinions and concerns of a diverse group of market participants and reflects how open TMX was to the countless feedback they received. The proposal will modernize TMX's MOC facility and will benefit all investors by providing more transparency and flexibility to the MOC process. It will allow active asset-managers to provide liquidity in one of the most important segments of the trading day. ■*

Mehmet Kinak, Global Head of Systematic Trading and Market Structure

T. Rowe Price Investment Management

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