

# TSX Market on Close FAQ

#### 1. Why was a TSX market on close (MOC) facility implemented?

A MOC facility was implemented to:

- provide equal access and opportunity in setting the closing price;
- reduce volatility at the close;
- guarantee anonymity of broker numbers and volumes in the close.

#### 2. Who can use MOC?

MOC is accessible to all Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV) Participants and Sponsored Direct Access Participants.

#### 3. Does my trade station support MOC functionality?

All trade station functionality questions should be directed to your trade station vendor.

#### 4. Do I have to use the MOC facility?

No. The use of the MOC facility is voluntary.

#### 5. What stocks participate in the MOC facility?

All TSX listed equities are eligible for the TSX MOC Facility.

#### 6. What kind of orders can I put into the MOC book?

MOC market and limit orders and Closing Offset (CO) orders can be entered into the MOC book with board lot, mixed lot and odd lot volumes, subject to restrictions (see question below).

#### 7. When can I put my orders into the MOC book?

MOC market and MOC limit orders can be entered into the MOC book from 7:00 a.m. to 3:40 p.m. 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. CO orders can be entered in to 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 (PME), offsetting MOC limit orders can be entered between 4:00 p.m. and 4:10 p.m.

#### 8. Is there a minimum order size?

No. MOC market, MOC Limit and CO orders may be entered with board lot, mixed and odd lot volumes.

#### 9. Can I cancel or modify my MOC orders?

Prior to 3:40 p.m., MOC market and MOC limit orders can be cancelled or modified. Between 3:40 and 4:00 p.m., MOC market and MOC limit orders that contributed to the calculation of the MOC imbalance may not be cancelled or modified. MOC limit orders that did not contribute to the imbalance and offsetting MOC limit orders may be cancelled. Between 4:00 p.m. and 4:10 p.m. (PME), MOC market and MOC limit orders entered prior to 4:00 p.m. cannot be cancelled or modified. Offsetting MOC limit orders entered after 4:00 p.m. can be cancelled. CO orders can be cancelled between 7:00 a.m. and 4:00 p.m.

#### 10. Can I enter an anonymous MOC order?

Yes.

#### 11. When is the last possible time that I can place a MOC market order?

You may enter a Buy, Sell, Modify, or Cancel MOC market order up to 3:40 p.m. At 3:40 p.m. the MOC book is locked for MOC market orders.

#### 12. Do you publish a MOC imbalance?

A MOC imbalance is calculated and published to the trading community at 3:40 p.m. and contains the imbalance side, volume and TSX or TSXV Best-Bid-and-Offer (BBO) mid-point for each MOC eligible symbol. If there is a PME due to the calculated closing price falling outside of the PME range, the MOC imbalance is recalculated and re-published at 4:00 p.m. The 4:00 p.m. MOC imbalance message contains the imbalance side, volume and TSX or TSXV last sale price for each symbol subject to the PME.

#### 13. How is the MOC imbalance calculated?

The 3:40 p.m. MOC imbalance takes into consideration MOC market orders and MOC limit orders that are priced equal to or more aggressive than the TSX or TSXV Best-Bid-and-Offer (BBO) mid-point at the time of the calculation. The 4:00 p.m. MOC imbalance takes into consideration MOC market orders and MOC limit orders that are priced equal to or more aggressive than the TSX or TSXV last sale price at the time of the calculation. Of these eligible orders the MOC imbalance is the difference between the buy and sell MOC market and MOC limit orders' aggregate volumes.

#### 14. How is the MOC imbalance published?

MOC imbalance information is disseminated at 3:40 p.m. and, if required, at 4:00 p.m. on TMX.com and via the following data feeds: TBF, TL1, TL2, CBF, CL1, CL2 and the TMX Quantum Feed® (TSX and TSX V Level 1 and Level 2).

### 15. Why are only offsetting orders allowed during the imbalance broadcast and blind offset session?

This session is intended to solicit offsetting liquidity. Limit orders force market participants to enter their best price, thereby promoting price discovery.

### 16. I tried to enter an offsetting MOC limit order at 3:45 p.m. but the order was rejected. Why did this happen?

Check your order's volume and price. The MOC book will only accept offsetting MOC limit orders from 3:40 to 4:00 p.m. that are equal to or less than the posted imbalance with a price that is within of the preceding last board lot sale price by:

- +/- 3% or 5 trading increments on TSX
- +/- 5% or 5 Trading increments on TSXV

## 17. I tried to enter an offsetting MOC limit order during a price movement extension but the order was rejected. Why did this happen?

Check your order's volume and price. The MOC book will only accept offsetting MOC limit orders during a price movement extension that are equal to or less than the 4:00 p.m. imbalance with a price that is within the following range:

- for a buy imbalance the price may be at or between the last sale price and +10% from either the last sale price or the 20 min VWAP (whichever is greater).
- for a sell imbalance the price may be at or between the last sale price and -10% from either the last sale price or the 20 min VWAP (whichever is greater).

#### 18. How do you curb volatility at the close?

There are several ways that we try to mitigate volatility at the close:

- Hidden closing book
- Blind closing auction
- Price volatility parameters

#### 19. Why use a closing auction to set the closing price?

A closing auction provides all market participants with an opportunity to participate in setting the closing price.

#### 20. How does the closing price get calculated?

The Calculated Closing Price (CCP) will be derived from similar logic used at the opening (i.e. the price at which the most shares trade; leaving the least imbalance and closest to the last sale.)

#### 21. Why is there a volatility parameter at the close?

A price volatility parameter prevents unexpected closing prices by alerting participants to provide additional liquidity.

#### 22. What is a price movement extension?

A price movement extension provides the market with a ten-minute opportunity to react to significant movement in the closing price.

### 23. Why is the moc imbalance recalculated and published when a price movement extension is triggered?

The MOC Imbalance is recalculated and published during an extension to ensure market participants have an opportunity to offset the imbalance that triggered the extension session.

#### 24. What conditions will result in the price movement extension?

A price movement extension will be invoked when the CCP is greater than a +/-3% on TSX, +/- 5% on TSXV (price volatility parameter) variance from both the VWAP of the last 20 minutes of regular market trading and the last board-lot sale price from the continuous market.

#### 25. How long does the price movement extension last?

The price movement extension provides an additional 10-minute.

#### 26. Why hide the book between 4:00 p.m. and 4:10 p.m.?

A hidden book ensures market participants react to the CCP rather than to "who" is in the book and for "how much".

## 27. Why don't you accept orders on both sides of the market between 4:00 p.m. and 4:10 p.m. rather than offsetting only?

The 4:00 p.m. to 4:10 p.m. session is intended to solicit new liquidity to offset the posted imbalance. It also prevents the imbalance from "flipping-sides".

#### 28. Can the MOC imbalance flip sides during a PME?

No. The reference price that is used to determine the PME imbalance is the last sale price. Offsetting orders during a PME cannot be more aggressive then the last sale price therefore the PME imbalance cannot be flipped.

#### 29. What if the MOC book is balanced or there are no MOC market orders at 3:40 p.m.?

If the MOC book is balanced, or there are no MOC balanced orders at 3:40 p.m., the stock will close at the last board-lot sale price. MOC orders will be matched at this price.

#### 30. What is the closing price acceptance (CPA) parameter and CPA range?

The Closing Price Acceptance parameter is used to determine whether or not the CCP at the end of the price movement extension is acceptable. For a PME buy imbalance the CPA will allow a CCP to be determined between the last sale price and at most a +10% on TSX, +15% on TSXV range off of the VWAP of the last 20 minutes of regular market trading and the last board-lot sale price from the continuous market (CPA range). For a PME sell imbalance the CPA will allow a CCP to be determined between the last sale price and at most a -10% on TSX, -15% on TSXV range off of the VWAP of the last 20 minutes of regular market trading and the last board-lot sale price from the continuous market trading and the last board-lot sale price from the continuous market. (CPA range).

#### 31. What happens if the CCP exceeds the closing price acceptance parameter?

In the event that a stock goes into Price Movement Extension and at the end of that period has a Calculated Closing Price (CCP) exceeds the CPA range, the CCP will be set at the most aggressive price as necessary without exceeding the CPA range. All tradeable orders up to the new CCP value will be matched.

#### 32. Are MOC orders guaranteed a fill?

No. MOC orders are not guaranteed a fill. However, the wide price movement extension and closing price acceptance parameters provide the marketplace with considerable leeway in determining a closing price that will fill the MOC imbalance completely.

#### 33. What will cause a MOC session to be cancelled?

There are two situations that will result in a failed MOC:

- Regulatory halt
- Technical/System halt

### For more information

Please contact the TMX Equity Trading Account Management Team.

#### INQUIRIES

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