

FREQUENTLY ASKED QUESTIONS

The NASDAQ Closing Cross

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Q: What is the NASDAQ Closing Cross?

A: The NASDAQ Closing Cross provides a centralized order facility that determines a single price for the close.

Q: How does the Closing Cross work?

A: The cross operates as follows:

- NASDAQ operates as usual, until just prior to the close.
- In the last ten minutes leading up to the close, NASDAQ disseminates information about any order imbalance that exists among the on-close orders as well as indicative closing prices.
- At 4:00 p.m., Eastern Time (ET) the on-close book and the continuous book are brought together to create a single NASDAQ Closing Cross.
- NASDAQ closing prices are distributed to the consolidated tape immediately after the Closing Cross.
- Following the Closing Cross, after-hours trading proceeds as it usually does.

Q: What are the Closing Cross order types?

A: There are two order types:

On-Close Orders (OC)

- Allow investors to specifically request an execution at the closing price.
- Can be both limit-on-close (LOC) and market-on-close (MOC).
- Accepted beginning at 7:00 a.m., ET.

Imbalance-Only Orders (IO)

- Provide liquidity to offset on-close order imbalances during the Closing Cross.
- Must be priced (limit); no market imbalance-only orders.
- Execute only at or above/below the 4:00 p.m., ET, NASDAQ offer/bid.
- Buy/sell orders priced more aggressively than the 4:00 p.m., ET, NASDAQ best bid/ask are re-priced to the NASDAQ best bid/ask prior to the execution of the Closing Cross. Accepted beginning at 7:00 a.m., ET.

Q: Can you explain imbalance-only (IO) orders? Why use an IO order when the continuous market is also being used for the cross?

A: IO orders provide liquidity and are intended to offset a buy/sell imbalance during the Closing Cross. IO orders do not add to an imbalance, nor do they establish the closing price. They are executable only during the Closing Cross. Prior to the Closing Cross, buy/sell IO orders are re-priced to the best bid and offer, respectively.

Unlike continuous market orders, IO orders are not at risk for execution prior to market close and are not represented in a participant's position or the inside.

Q: Is short selling permissible at the cross?

A: Yes, subject to applicable short sale rules.

Q: Can an imbalance-only (IO) order sell short?

A: Yes. IO orders can sell short. Sell-short IO orders, along with other sell IO orders, priced at or below the best bid, are re-priced to the best offer at 4:00 p.m., ET. During the cross, they are executed on a downtick as long as the closing price is better than the best bid. If the closing price is at or below the best bid, sell IOs, including sell-short IOs, will not participate.

Q: Can market-on-close (MOC) and limit-on-close (LOC) orders sell short?

A: Yes. MOC and LOC orders are eligible to sell short at crossing prices at least a penny above the prevailing NASDAQ Market Center bid at the close. MOC and LOC short sales are executed at one penny above the bid, regardless of the direction of the bid, to ensure that they are executed legally.

Q: Is the Manning Rule applicable to the Closing Cross?

A: Yes. The Manning Rule and all other market rules that pertain to the regular trading day apply to the NASDAQ Closing Cross. In particular, when determining its Manning Rule obligations, a market participant must consider executions that result from the Closing Cross since those executions occur during normal trading hours.

Q: Is an All-or-None (AON) imbalance-only (IO) order acceptable?

A: No. AON orders are not accepted for the closing or opening crosses.

Q: Does NASDAQ guarantee market-on-close (MOC) orders in the Closing Cross?

A: No, but NASDAQ ensures MOC orders in the cross in the same way that NASDAQ ensures market orders in the NASDAQ Market Center. The Closing Cross allows the entire industry to provide necessary liquidity guaranteed to offset any MOC imbalance.

Q: Which price is used to execute on-close (OC) orders? (What happens for market and limit orders?)

A: Special logic is used to arrive at the closing price. The algorithm takes into account all orders and quotes in the NASDAQ Market Center and the inside prices at 4:00 p.m., ET. Certain orders are re-priced to execute at the closing price, and all inferior priced orders that are executed during the cross are adjusted to the closing price. The closing price is based on the following steps:

1. Maximize the number of shares executed.
2. Minimize the imbalance of OC orders.
3. Minimize the distance from the 4:00:00 p.m., ET, NASDAQ inside bid-ask midpoint.

The Closing Cross price determines the NOCP for each stock included in the Closing Cross. The closing price is the point where the imbalance of OC orders is satisfied, using the continuous book (orders and quotes), the on-close book and imbalance-only (IO) orders.

Q: Can pegged and discretionary orders participate in the Closing Cross?

A: Yes, if they reside on the NASDAQ continuous book. On-close (OC) and imbalance-only (IO) orders cannot be pegged or discretionary.

Q: During the crossing period, what happens to quotes and/or orders not marked as "on-close"?

A: These orders participate if executable at the closing price. Prior to the Closing Cross, orders not marked as "on-close" participate in the continuous market. When the closing process starts, these orders and/or quotes execute if they are priced better than the closing price. If they are priced at the closing price, and there is sufficient demand, they execute.

Q: What are the timeframes and restrictions for the canceling and entry of orders?

A: There are no additional restrictions for regular NASDAQ Market Center orders (IOC, DAY, and GTC) and quotes. Beginning at 3:50 p.m., ET, certain actions are restricted:

OC Orders can be entered beginning at 7:00 a.m., ET, but cannot be entered, canceled or modified after 3:50 p.m., ET.

IO Orders can be entered from 7:00 a.m., ET, until market close but cannot be canceled after 3:50 p.m., ET.

Q: If a firm sends in a market-on-close (MOC) or limit-on-close (LOC) order after the cut-off, is it rejected?

A: Yes. MOCs and LOCs entered after the cut-off at 3:50 p.m., ET, are rejected at time of entry.

Q: If a firm sends market-on-close (MOC), limit-on-close (LOC) or imbalance-only (IO) orders that don't get executed, do they get a cancellation message?

A: Yes. A cancel message will be returned to the firm after the cross occurs.

Q: Do odd lots participate like all other orders, or is there special processing for them?

A: Odd lots follow regular NASDAQ processing.

Q: What happens if the Closing Cross results in an odd lot trade?

A: If the Closing Cross in a security results in an odd lot trade, NASDAQ uses the legacy NOCP calculation to determine the official closing price for that security.

Q: What information about closing orders is disseminated in the last ten minutes leading up to the close?

A: Between 3:50 and 3:59:55 p.m., ET, NASDAQ disseminates the following information via the NASDAQ TotalView[®] data feed, the NASDAQ Cross Net Order Imbalance Indicator (NOII) website, the NASDAQ Workstation[®] and select market data distributors and service bureaus:

- **Near clearing price:** The crossing price at which orders in the NASDAQ closing book and continuous book would clear against each other.
- **Far clearing price:** The crossing price at which orders in the NASDAQ closing book would clear against each other.
- **Current Reference Price:** A price within the NASDAQ Inside at which paired shares are maximized, the imbalance is minimized and the distance from the bid-ask midpoint is minimized, in that order.
- **Number of paired shares:** The number of closing shares that NASDAQ is able to pair off at the current reference price.
- **Imbalance quantity:** The number of closing shares that would remain unexecuted at the current reference price and the side of the imbalance (buy, sell or none if there is no imbalance).

Q: Do clients have to pay a new fee in order to be able to view the Net Order Imbalance Indicator (NOII)?

A: Subscribers to NASDAQ TotalView and the NASDAQ Workstation can view NOII for free. Access to the NASDAQ Cross Net Order Imbalance Indicator website is subject to the NASDAQ TotalView entitlement fee of \$70 per logon, per month. Firms can also contact their market data vendors and service bureaus directly to determine the availability and cost of NASDAQ Order Imbalance information.

Q: Do paired shares include imbalance-only (IO) orders?

A: Yes. IO orders are included in the number of paired shares.

Q: How can traders tell which stocks are eligible for the Closing Cross?

A: All NASDAQ securities, except those dually listed on another exchange, are eligible for the Closing Cross. All new listings on NASDAQ are added to the Closing Cross on the first day of trading.

Q: How does NASDAQ communicate which stocks have a Closing Cross each day?

A: NASDAQ offers an NOCP message on the NASDAQ Index Dissemination ServiceSM (NIDSSM). This message indicates whether the NOCP was set by the NASDAQ Closing Cross.

Q: Is the contra party revealed to firms whose orders are executed during the Closing Cross, or is the cross anonymous?

A: The Closing Cross is fully anonymous.

Q: Is there going to be one big print or several smaller prints coming out of the close?

A: The Closing Cross print comes across the UTDF as a regular way trade report, with the price of the cross and the aggregate size of all the trades that participated in the cross at that price. The underlying trades do not go to the tape. The bulk print price and size is reiterated in the NOCP message on UTDF immediately following the cross as well, and is updated to reflect any cancels or corrections.

Q: How do ECNs participate?

A: Participation in the Closing Cross is voluntary, and NASDAQ has provided several mechanisms for ECNs to participate.