THE NASDAQ IPO CROSS

NASDAQ® strives to provide fair executions for investors through an open and transparent process that creates a single price for Initial Public Offerings (IPOs) based on supply and demand.

The NASDAQ IPO Cross is designed to:

- Provide fair executions at a single price that maximizes volume and is reflective of supply and demand in the market.
- Maximize transparency at IPO opens by disseminating timely imbalance information to investors.
- Create an open process in which all investors have the ability to enter orders and participate in price discovery.

THE IPO CROSS TIMELINE

<table>
<thead>
<tr>
<th>SYSTEM START-UP</th>
<th>DISPLAY ONLY PERIOD</th>
<th>PRE-LAUNCH PERIOD</th>
<th>IPO COMMENCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASDAQ will accept orders in IPO securities beginning at system start-up for those firms that have enabled the Holding Bin Functionality.</td>
<td>Pre-open quoting, regular order entry and information dissemination begins. + NASDAQ begins accepting quotes and all order entry. + Indicative clearing price and imbalance information dissemination begins. + Orders may be canceled during this time. + Display only period of 15 minutes is followed by a Pre-Launch Period where the underwriter in coordination with NASDAQ will determine when to open the security for trading.</td>
<td>The period immediately following the display only period, where the lead underwriter, in coordination with NASDAQ, will determine whether additional price discovery is necessary to ensure the fair and orderly launch of trading. + The Pre-Launch Period will not have a defined minimum or maximum time period + Market participants will continue to be able to enter and cancel orders during the Pre-Launch Period + Once the lead underwriter decides to launch, the IPO cross will commence unless a marker order imbalance exists or volatility is detected in the 15 second period prior to the cross. In this case, the Pre-Launch Period will continue to allow for additional price discovery.</td>
<td>Execution occurs. + The IPO Cross process begins once the lead underwriting firm communicates to NASDAQ that they are ready to proceed with the opening of the new issue. The NASDAQ official Opening Price (NOOP) is disseminated and a bulk execution is sent to the tape. + Price is set by volume. + After the cross, regular trading begins.</td>
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</tbody>
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ORDER TYPES FOR THE IPO CROSS

- Orders for those firms with ports enabled for the Holding Bin functionality will be ACCEPTED. Orders from firms without the Holding Bin functionality will be REJECTED.
- Orders may be entered using FIX or Rash.
- Orders will be held for acknowledgement until the beginning of the quoting period.
- All Time-in-Force orders are accepted.
- No additional special handling instructions (e.g., pegging, min qty, discretion) are permitted.

EXECUTABLE FROM THE IPO CROSS UNTIL SPECIFIED TIF INSTRUCTION.
- Limit or Market orders
- Includes Day, GTC, IOC, Extended Hours Orders, and Quotes.
- Displayed quotes and orders will be shown during the display only period.
- Market, IOC and non-displayed orders will not be shown during the display period, but will be reflected in the information dissemination.

No special auction specific order types.

No special CrossTradeFlag instructions are required.

INDICATIVE CLEARING PRICE INFORMATION DISSEMINATION

IPO imbalance information will be disseminated every five seconds during the display only period via on the Net Order Imbalance Indicator (NOII), which is available via NASDAQ TotalView®, NASDAQ Workstation and NASDAQ OMX Data Store at DATA.NASDAQ.COM.

INDICATIVE CLEARING PRICE

Price at which the opening book would clear based on current quotes and orders.
+ This will be populated through the Current Reference Price, Near Price and Far Price.

PAIRED SHARES

Number of shares matched for execution at the Indicative Clearing Price.

IMBALANCE

Imbalance shares and side will only be shown if there is no indicative price due to a market order imbalance.

EXECUTION PRIORITY AND ALGORITHM FOR THE IPO CROSS

EXECUTION PRIORITY

+ Price/time with non-display (including reserve) size after displayed size at each price.
+ IOC orders have displayed priority.

EXECUTION ALGORITHM

+ Maximize number of shares executed.

TIEBREAKERS

+ Minimize the distance from the issue price.

MORE INFORMATION

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