

## PHLX OPENING PROCESS

- The NASDAQ OMX PHLX (PHLX) Opening Process begins when either (a) a “valid width” (*i.e.*, a bid/ask differential that is compliant with Rule 1014(c)(i)(A)(1)(a)) specialist quote is submitted, (b) valid width quotes from at least two PHLX XL participants have been submitted within two minutes of the opening quote in the underlying security from the primary exchange, or (c) after two minutes of the opening quote in the underlying security from the primary exchange, one PHLX XL participant has submitted a valid width quote.
- The Exchange will open immediately if there is no opening imbalance and either an away BBO is published which is uncrossed or a “quality opening market” is present when the Exchange BBO is a zero bid and there is no away BBO. A “quality opening market” is defined as an acceptable bid/ask differential (See [PHLX XL Systems Settings document](#)) of the best bid and best offer present on the Exchange used to validate a potential opening price.
- If an opening imbalance exists beyond the quality opening market or best away market (whichever is better), the system calculates an Opening Quote Range (OQR). The OQR is the price range outside of which the Exchange will not open an options series.
  - OQR is calculated using the highest available bid and lowest available offer from all valid width quotes on PHLX as well as bids and offers on away exchanges and subtracting/adding a value (See [PHLX XL Systems Settings document](#)) from such best bid/offer to create an acceptable OQR. In the case in which the Exchange valid width quotes cross each other and there is no away market, the OQR is the lowest quote bid and highest quote offer of valid width quotes on the Exchange.
- An imbalance process ensues if all opening marketable interest cannot be completely executed at or within the OQR without trading through other markets or if there is no imbalance, no away exchange is open, and the Exchange does not have a quality opening market present.
  - An Imbalance Message is broadcast over the TOPO Plus Orders data feed and Specialized Quote Feed (SQF) indicating matched volume, imbalance side and size, as well as expected opening price. Imbalance information updates as interest is received by the Exchange.
  - An Imbalance Timer, currently set at 500 milliseconds, is initiated during which time participants may submit opening quotes, opening sweeps and orders.
  - If at any point, the imbalance is satisfied, the imbalance process will immediately end.
  - If at the end of the Imbalance Timer, there remains an opening order imbalance, the process will be repeated up to three times.
- As part of the imbalance process, PHLX will initiate a 200 millisecond route timer. If after the route timer the Exchange can satisfy the opening imbalance by routing contracts to away markets, the Exchange will route to all other markets reflecting interest priced better than the Exchange opening price and immediately trade available contracts on the Exchange at the Exchange opening price. The PHLX opening price will always be at or within the OQR.

- Following the opening imbalance process, any remaining unexecuted marketable contracts will be cancelled back to the entering participant, unless the member that submitted the original order has instructed the Exchange in writing to re-enter the remaining size, in which case the remaining size will be automatically submitted as a new order.

Please refer to the [PHLX XL Systems Settings document](#) for all timer and table values.

