Enhanced Closing Price for ETPs

Nasdaq is introducing a new Enhanced ETP closing price methodology that will provide a more current valuation price for less active ETPs. Going forward, Nasdaq will use a new closing price methodology for ETPs that do not have a closing auction, which is based upon the prevailing best bid and offer, “BBO,” at the end of the regular day trading session. Our research has shown that utilizing a time-weighted average of the prevailing end of day quotes, “T-WAM,” will be more reflective of the current valuation of the ETP versus the current methodology of using the last transaction price. This new methodology will determine the Official Closing Price for all ETPs that do not have a closing auction that results in a closing price.

FAQs

Why is Nasdaq introducing a new Enhanced Closing Price for ETPs?
For active ETPs that have a closing cross, the current closing price methodology provides an accurate end of day market price of an ETP. However, less actively traded ETPs do not have consistent order interest on a daily basis to conduct a closing cross and currently reference the last sale in that instrument which could be hours or days old leading to a potentially stale closing reference price.

When will the T-WAM be used?
The T-WAM Calculation will be used when a Nasdaq-listed ETP does not have a closing cross. Previously, Nasdaq used the Nasdaq Last Sale when an ETP did not have a closing cross.

When is the T-WAM calculated?
The new methodology will utilize observed BBO quotes to calculate the T-WAM during the time frame 15:58:00-15:59:55. The calculation will exclude the BBO quotes observed in the 5 seconds prior to the close 15:59:56-16:00:00. The exclusion of quotations during this time period is due to an observation that BBO quotes were often cancelled or widened during that period and were less reflective of the valuation of the ETP. The beginning of the T-WAM calculation time period 3:58:00 aligns with the end of the cut off period for the acceptance of Limit on Close “LOC” orders.
How does the T-WAM work?
The T-WAM will use the midpoint of the NBBO during the previously stated calculation timeframe. See example below:

<table>
<thead>
<tr>
<th>Time</th>
<th>NBBO</th>
<th>Mid</th>
<th>NBB</th>
<th>TWAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:58</td>
<td>$20.01</td>
<td>$20.00</td>
<td>$19.99</td>
<td>$19.97</td>
</tr>
<tr>
<td>15:59</td>
<td></td>
<td></td>
<td></td>
<td>TWAM:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$20.00 for 1min</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$19.96 for 5s</td>
</tr>
<tr>
<td>15:59:55</td>
<td></td>
<td></td>
<td></td>
<td>TWAM = $19.9807</td>
</tr>
</tbody>
</table>

What qualifies as an eligible quote in the T-WAM?
In order to account for situations where an ETP may have a BBO quotation that is excessively wide, Nasdaq will define a maximum spread width for purposes of defining an eligible quote. An eligible quote is defined as a quote whose spread width is no greater than a value of 10% of the midpoint price. All quoted spreads within the T-WAM’s calculation time period that are greater than 10% of the midpoint value will be excluded from the T-WAM calculation. If there are no eligible quotes for the T-WAM, Nasdaq will use the consolidated last sale as the official closing price.

For example: If the NBBO = 19.99 x 20.01 (midpoint = $20), validation logic would allow a maximum quote width up to $2 to be used as part of the calculation ($20.00*10% = $2). If the NBBO was 17.00 x 23.00 (midpoint = $20.00), the midpoint would not be used in the T-WAM calculation because it violates the maximum quote width ($20.00*10% = $2).

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For more information on this new enhancement and our methodology please see Nasdaq’s Market Makers blog by Phil Mackintosh.