Features and Benefits

- Access to J.P. Morgan liquidity
- 2 types of benchmark crosses - VWAP Price Match and Close Price Match
- Tier structure to support customizable crossing

### VWAP Price Match
- Equal Split/Time priority matching
- Execution targeting a 5 min interval VWAP price

### Close Price Match
- Time priority matching
- Execution at primary exchange’s closing auction price

**January 2020 JPB-X Statistics**

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Average Daily Volume (single counted)</td>
<td>18.7 mm</td>
</tr>
<tr>
<td># of Symbols traded</td>
<td>3,697 unique symbols</td>
</tr>
<tr>
<td>Average Trade Size</td>
<td>87 shares</td>
</tr>
<tr>
<td>VWAP Price Match Internalization Rate*</td>
<td>21.7%</td>
</tr>
<tr>
<td>Close Price Match Internalization Rate**</td>
<td>22.8%</td>
</tr>
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</table>

*VWAP Price Match executions as a % of total executed volume of VWAP Price Match enabled standard VWAP orders

**Close Price Match executions as a % of total close volume executed via Close Price Match enabled Algo orders

**JPB-X Average Daily Volume and Market Share**

**VWAP Price Match Reversion Metrics**

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Tiers

Our differentiated tiering structure allows clients to customize the order flow types with which they interact. Order flow types are used to tier the JPB-X order book.

- **Tier 1**: Institutional investor client flow and JPMS affiliates’ flow accessing JPB-X via algorithms/SOR
- **Tier 3**: U.S. registered broker-dealer client flow (both agency and principal) accessing JPB-X via algorithms/SOR
- **Tier 4 (P1)**: Internal (JPMS) trading desk flow accessing JPB-X via algorithms/SOR

Interaction via JPM Algorithms

- VWAP Price Match enabled by default for VWAP, TWAP and POV strategies. Can be opted-in for AQUA.
- Close Price Match enabled by default for CLOSE, VWAP and TWAP strategies

Volume by Tier

- Tier 1: 85.3%
- Tier 4 - P1: 10.6%
- Tier 3: 4.0%

Sources: JPMorgan Tick and Trade Data, BATS Market Volume Summary [http://www.batstrading.com/market_summary](http://www.batstrading.com/market_summary)