

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

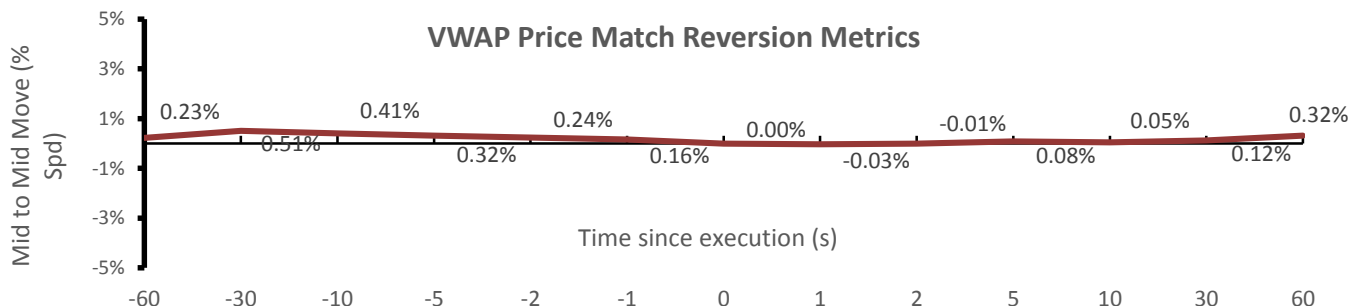
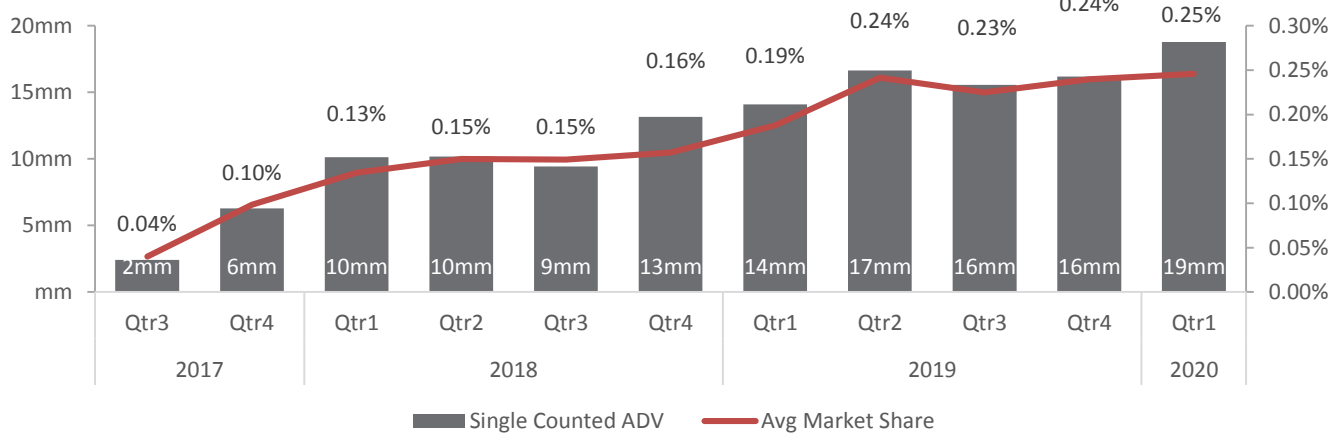
 - Time priority matching
 - Execution at primary exchange's closing auction price

January 2020 JPB-X Statistics	
Average Daily Volume (single counted)	18.7 mm
# of Symbols traded	3,697 unique symbols
Average Trade Size	87 shares
VWAP Price Match Internalization Rate*	21.7%
Close Price Match Internalization Rate**	22.8%

*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



Tiers

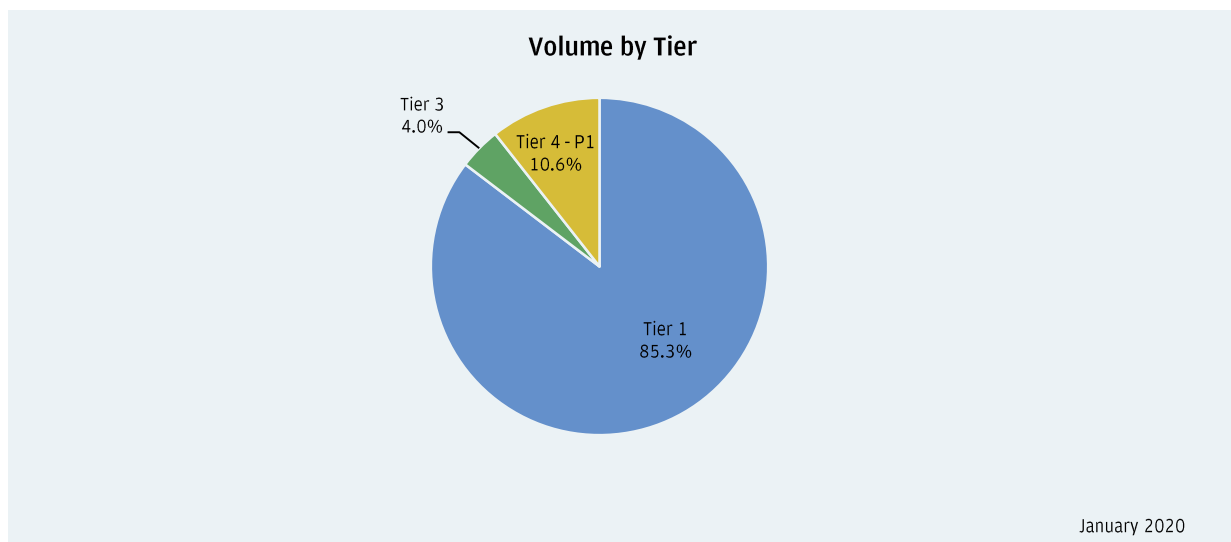
Our differentiated tiering structure allows clients to customize the order flow types with which they interact.

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



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