

## Features and Benefits

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

### VWAP Price Match

- Random matching
- Execution targeting a 5 min interval VWAP price

### Close Price Match

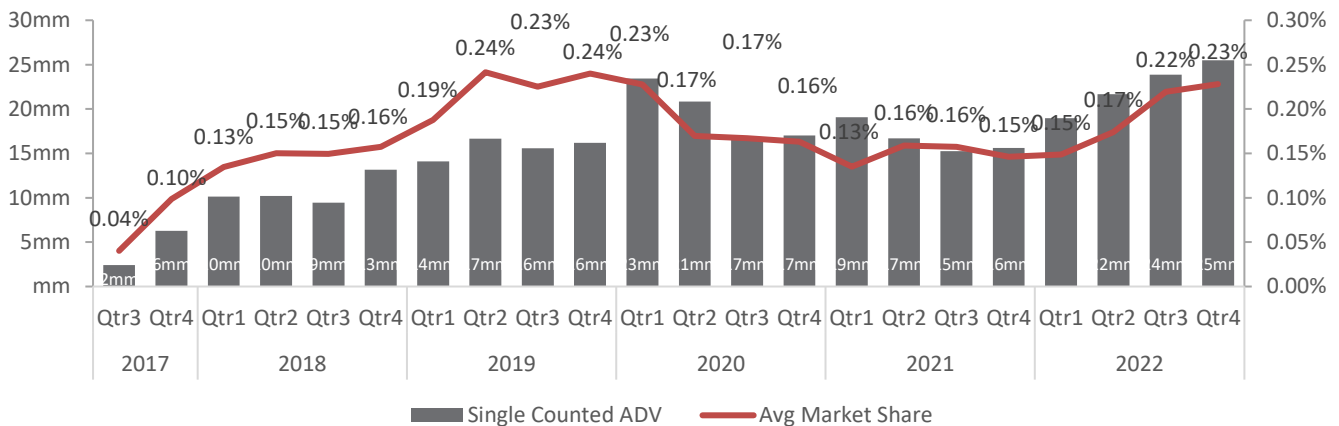
- Time priority matching
- Execution at primary exchange's closing auction price

Q4 2022 JPB-X Statistics	
Average Daily Volume (single counted)	25.4 mm shares
# of Symbols traded	4,362 unique symbols
Average Trade Size	125 shares
VWAP Price Match Internalization Rate*	23.4%
Close Price Match Internalization Rate**	30.9%

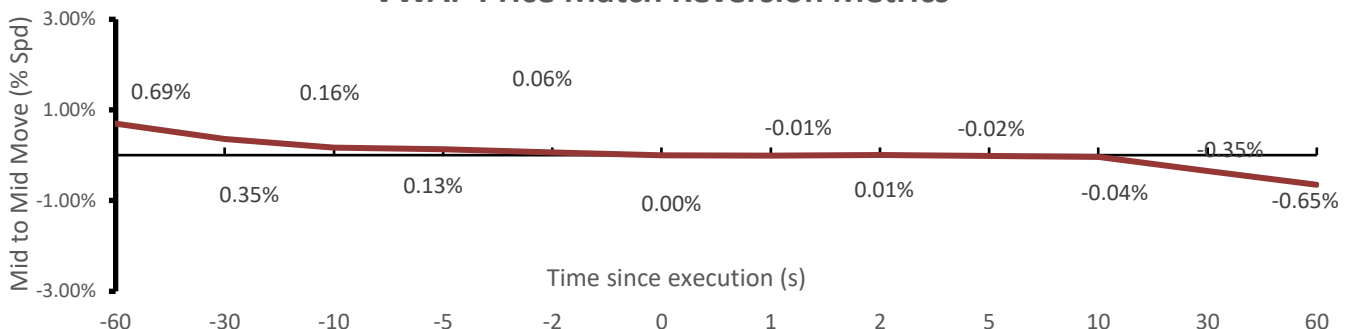
\*The number of shares executed by the VWAP strategy via VWAP Price Match, as a percentage of the number of shares executed by that strategy where VWAP Price Match was enabled.

\*\*The number of shares executed by the CLOSE, VWAP, and TWAP strategies via Close Price Match, as a percentage of the number of shares executed by those strategies where Close Price match was enabled.

## JPB-X Average Daily Volume and Market Share



## VWAP Price Match Reversion Metrics



\*Please note executions with missing or incorrect reversions have been excluded from these stats

## Tiers

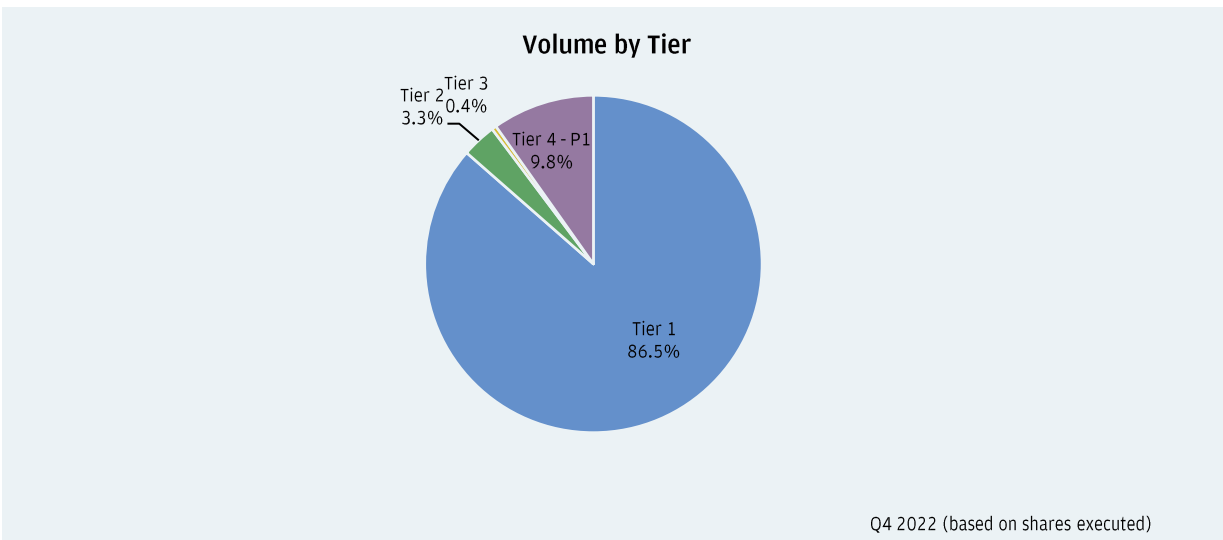
Our differentiated tiering structure allows clients to customize the order flow types with which they interact.

Order flow types are used to tier the JPB-X order book.

- **Tier 1 (Order Flow Type I-1):** Institutional investor client flow and JPMS affiliates' flow accessing JPB-X via algorithms/SOR
- **Tier 2 (Order Flow Type I-2):** Institutional investor client flow with direct access to JPB-X
- **Tier 3 (Order Flow Type I-3):** U.S. registered broker-dealer client flow (both agency and principal) accessing JPB-X via algorithms/SOR
- **Tier 4 (Order Flow Type P-1):** Internal (JPMS) principal 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](http://www.batstrading.com/market_summary)

Please also see:

**JPB-X FAQs:** <https://www.jpmorgan.com/content/dam/jpm/cib/complex/content/markets/aqua/pdf-1.pdf>