

U.S. MS POOL Statistics

December 2018

Key Statistics

Average Daily Matched Volume (MM)	72.0
Average Daily Matched Notional (MM USD)	2,743
Average Trade Size (Shares)	221.1
Average Daily Number of Trading Symbols	4,458

Executions Relative to the Best Bid and Offer

% of Shares at Midpoint	29.4%
% of Shares at Other Prices Inside the Spread	2.5%
% of Share at the Bid or Offer	68.1%

Execution Breakdown by Capacity

% of Executed Shares from Professional Trader (PT)	34.0%
% of Executed Shares from Principal Flow	3.9%
% of Executed Shares from Non-PT / Non-Principal Flow	62.0%

Execution Block Statistics

Average Daily Volume % Block >= 10,000 shares	3.1%
Average Daily Value % Block >= \$200,000	7.3%
Average Daily Volume % Block 2,000-9,999 shares	13.0%
Average Daily Value % Block \$100,000-\$199,999	6.9%

Notes

1. Percentages may not add up to 100% due to rounding.
2. **Key Statistics:** Average daily matched volume and notional are single counted.
3. **Execution Relative to the Best Bid and Offer:** Execution prices are relative to the Best Bid and Offer (BBO) in MS POOL. These prices are (a) at the midpoint of the BBO, (b) at the Bid or Offer or (c) at other valid prices within the BBO spread. Information regarding the market data feeds used by MS POOL to construct the Best Bid and Offer can be found in Part III, Item 23 of the MS POOL ATS-N filing.
4. **Execution Breakdown by Capacity:** Statistics are calculated as the number of shares bought or sold in MS POOL that correspond to each of these capacities, divided by the total number of shares bought and sold in MS POOL. Information regarding these capacities can be found in Part III, Items 7 and 13 of the MS POOL ATS-N filing.
5. **Execution Block Statistics:** Average daily volume block statistics are calculated as the volume in MS POOL executed in the specified block size divided by the total volume executed in MS POOL. Average daily value block statistics are calculated as the notional value in MS POOL executed in the specified block value divided by the total notional value executed in MS POOL.

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