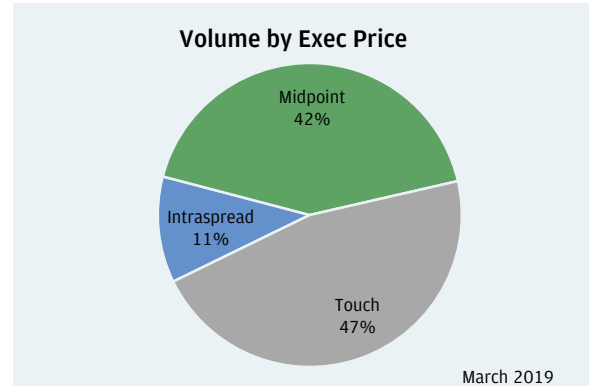


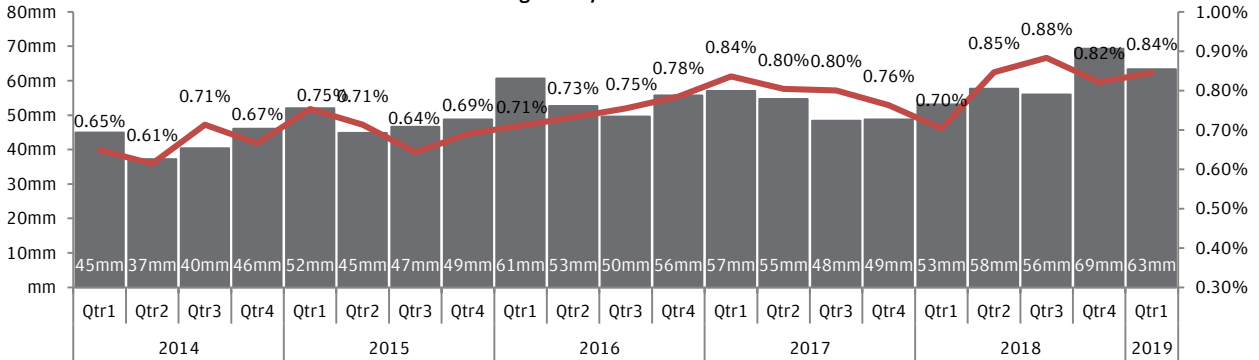
Features and Benefits

- Tier structure to support customizable crossing
- Conditional order support
- Price/Tier/Time priority matching
- Broad spectrum of J.P. Morgan liquidity
- Liquidity, speed, and execution quality
- Opportunity for price improvement
- Continuous crossing

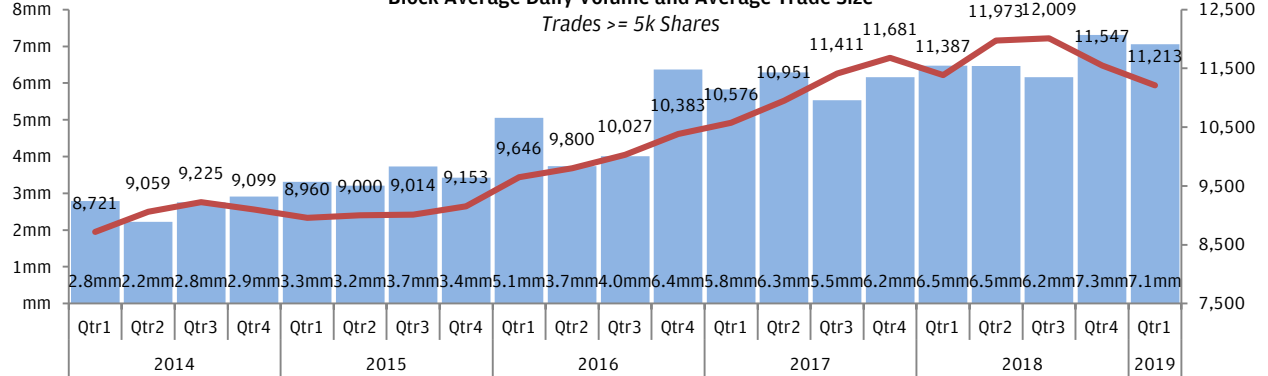
March 2019 JPM-X Statistics	
Average Daily Volume (single counted)	61.9 mm
Average Trade Size	176 shares
# of Symbols traded	6,480 unique symbols
% of Volume >= 5k shares	11% of Volume (7mm ADV)
Average Block Size (>= 5k shares)	10,821 shares



Average Daily Volume and Market Share



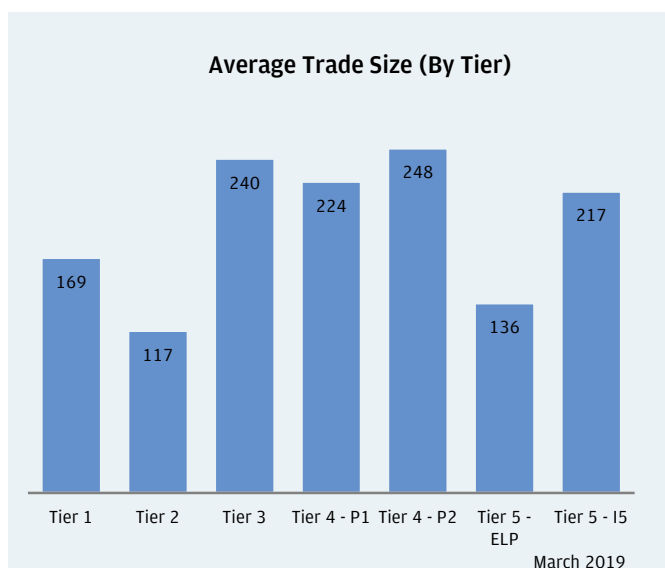
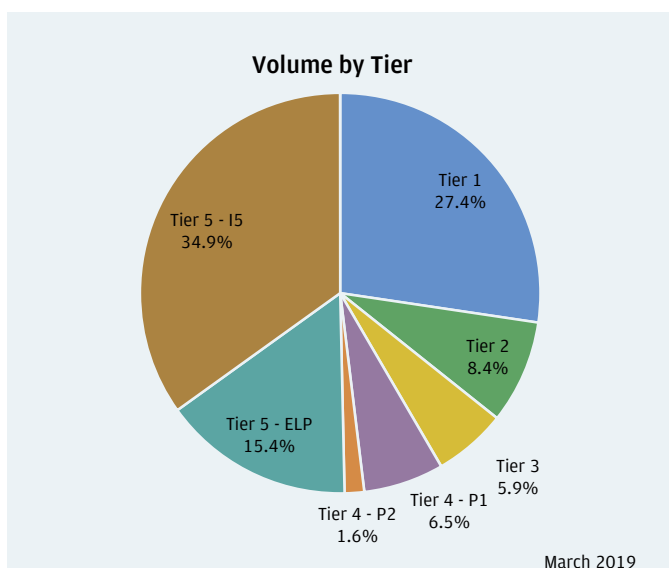
Block Average Daily Volume and Average Trade Size



Order Flow 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 JPM-X order book.

- **Tier 1:** Institutional investor client flow and JPMS affiliates' flow accessing JPM-X via algorithms/SOR
- **Tier 2:** Institutional investor client flow with direct access to JPM-X
- **Tier 3:** U.S. registered broker-dealer client flow (both agency and principal) accessing JPM-X via algorithms/SOR
- **Tier 4 (P1):** Internal (JPMS) trading desk flow accessing JPM-X via algorithms/SOR
- **Tier 4 (P2):** Internal (JPMS) electronic liquidity provider flow with direct access to JPM-X
- **Tier 5 (14/ELP):** Flow of external broker-dealers acting as electronic liquidity providers with direct access to JPM-X
- **Tier 5 (15):** Flow of external broker-dealers not acting as electronic liquidity providers (both agency and principal) with direct access to JPM-X



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

Please also see:

JPM-X FAQs: <https://www.jpmorgan.com/directdoc/jpmxfaq.pdf>

CONTACT ELECTRONIC CLIENT SOLUTIONS

1 212 622 2826

ecs-ny-desk@jpmorgan.com

FOR INSTITUTIONAL & PROFESSIONAL CLIENTS ONLY - NOT INTENDED FOR RETAIL CUSTOMER USE

This material has been prepared by J.P. Morgan Sales and Trading personnel and is not the product of J.P. Morgan's Research Department. It is not a research report and is not intended as such. This material is provided for informational purposes only and is subject to change without notice. It is not intended as research, a recommendation, advice or an offer or a solicitation to buy or sell any financial product or service, or to be used in any way for evaluating the merits of participating in any transaction. Please consult your own advisors regarding the legal, tax, accounting or any other consequences of any transaction, including its suitability for you given your particular circumstances. J.P. Morgan and its third party suppliers disclaim any responsibility or liability whatsoever for the quality, fitness for a particular purpose, non-infringement, accuracy, currency or completeness of the information herein, and for any reliance on, or use of, this material in any way. This material is provided on a confidential basis and March not be reproduced, redistributed or transmitted, in whole or in part, without the prior written consent of J.P. Morgan. Any unauthorized use is strictly prohibited. Product names, company names and logos mentioned herein are trademarks or registered trademarks of their respective owners. The products and/or services mentioned herein March not be suitable for your particular circumstances and March not be available in all jurisdictions or to all clients. Past performance is not indicative of future results. All services are subject to applicable laws, regulations and service terms. This material is a "solicitation" of derivatives business only as that term is used within CFTC Rule 1.71 and 23.605. Where this material is an "investment recommendation" as that term is defined in the EU Market Abuse Regulation, visit: www.jpmm.com/#mardisclosures. This material is subject to terms at: www.jpmorgan.com/salesandtradingdisclaimer.

© 2019 JPMorgan Chase & Co. All rights reserved. J.P. Morgan is a marketing name for investment banking businesses of J.P. Morgan Chase & Co. and its subsidiaries and affiliates worldwide. Bank products and services, including certain lending, derivative and other commercial banking activities, are offered by JPMorgan Chase Bank N.A. (JPMCB), including through its authorized branches and other global affiliates registered with local authorities as appropriate. Securities products and services, including execution services, are offered in the United States by J.P. Morgan Securities LLC (JPMS LLC), in EMEA by J.P. Morgan Securities plc (JPMS plc) where permitted and in other jurisdictions worldwide by other appropriately licensed global affiliates. JPMCB, JPMS LLC and JPMS plc are principal subsidiaries of JPMorgan Chase & Co. For information on which legal entities offer investment banking products and services in each jurisdiction, please consult: www.jpmorgan.com/ib-legal-entities. Clients should contact their salespersons at, and execute transactions through, a J.P. Morgan entity appropriately licensed in the client's home jurisdiction except to the extent governing law permits otherwise. JPMS LLC intermediates securities transactions effected by its non-US affiliates for or with its US clients when appropriate and in accordance with Rule 15a-6 under the US Securities Exchange Act of 1934. For important disclosures in respect of over-the-counter equity derivatives transactions, please consult: www.jpmorgan.com/otc-equity-derivative-transactions. For additional regulatory disclosures, please consult: www.jpmorgan.com/disclosures.