

US Listed Options Electronic Order Handling FAQs

April 2020

1. Commissions and fees for electronic trading

Commissions and fees for electronic trading of listed equity options are negotiated on a client-by-client basis and may include per contract commissions as well as attribution of the rebates earned or fees incurred from exchanges or market making programs associated with the client's trading.

2. Payment for order flow (distribution of exchange marketing fees) and rebates

When trading listed equity options, Barclays and its third party algo provider may participate in exchange-sponsored market making programs that provide rebates and payment for order flow (also called distribution of exchange marketing fees). In addition, certain exchange fee schedules include rebates to participants executing on that exchange under certain conditions, such as providing liquidity. In some instances, the rebates that Barclays receives from an exchange or third party provider may exceed the amount that Barclays is charged by that exchange or third party provider.

Exchange rebates and payments may factor in routing decisions.

3. Barclays options market making

Barclays' status as a market maker at a particular venue is not a factor in routing decisions. However, once the decision has been made to route an order to an options exchange where Barclays is a registered market maker, and that exchange supports preferencing, the order will be preferenced to our market maker. For venues where Barclays is not a market maker, the third party algo provider might have arrangements to preference a market maker based on their agreement with that market maker.

4. Options Router overview

Barclays' Options Router uses a third party provider's algorithm for accessing exchange liquidity. In an effort to maximize fill rate, when an order is marketable, the Options Router may seek liquidity from a third party ATS using an RFQ process and/or use a Flash/Auction to find hidden exchange liquidity before targeting (& dynamically oversizing if necessary) all displayed liquidity. When an order is not marketable, the Options Router will post across multiple exchanges based on a pre-determined logic (see FAQ 6 *Posting Logic*).

5. Sweep logic

The Options Router aims to maximize liquidity by accessing a third party ATS with a network of liquidity providers and hidden liquidity through Flash/Auction before targeting displayed liquidity. When targeting displayed liquidity, the router tries to simultaneously sweep marketable quotes across all available exchanges (one price level at a time). The router will dynamically oversize where necessary and will also take exchange fees into account where marketable liquidity is available on multiple exchanges at the best price. Please see FAQ 7 *Customization options* for alternative methodologies that can be elected for routing behavior.

6. Posting logic

When posting, the Options Router will post across a pre-determined list of venues at pre-determined percentages, by default. In case of an exception (e.g., the venue is unavailable, or the symbol does not trade on the selected venue), the Options Router will post to one of the other venues as per the third-party's venue ranking logic. The default posting logic might differ based on certain factors, including capacity on the order (Tag 204) and billing type (e.g., cost plus clients). Please speak to your sales representative for more details.

Please see FAQ 7 *Customization options* for alternative methodologies that can be elected for routing behavior.

7. Customization options

The following modifications to the default settings are available for the Options Router:

- a. Disable third party ATS
- b. Disable Flash/Auction process before sweeping displayed liquidity
- c. Select Posting Venue – change the Option Router's default posting venue and posting percentage.

8. Directed orders

Directed orders are routed to the indicated exchange using the third party provider and are not subject to the Options Router's order placement logic.

9. Spread orders (Complex Order Book)

Barclays offers directed access to CBOE, ISE and PHLX complex order books. Directed spread orders (complex orders) are routed to the indicated exchange using the third party provider and are not subject to the Options Router's order placement logic. Additional Complex Order trading venues and the use of the Options Router to trade complex order books, will become available through the third party provider in the near future.

10. Accessible venues

For listed equity options, the following options exchanges¹ are accessible through the Options Router

- Bats BZX
- Bats EDGX
- BOX
- CBOE
- C2
- DASH ATS
- ISE
- ISE Gemini
- ISE Mercury
- Miami Options Exchange
- Miami Pearl Exchange
- MIAX Emerald Exchange
- NASDAQ BX
- NASDAQ Options
- NASDAQ PHLX
- NYSE AMEX
- NYSE ARCA

¹ List is subject to change and updated periodically. Also, Barclays may not support the full range of functionalities or order types that each venue offers.

11. Trading hours

The Options Router will only send orders to the market once the option has opened for trading. Clients can send orders until 4:00 p.m. EST for equity options and until 4:15 p.m. EST for ETF/Index options.

12. Options algorithms

Barclays offers algorithmic trading strategies for the execution of US listed options orders, including TWAP, Work and Pounce, and Spread Trader. Barclays algorithms use the algo logic provided by a third party provider customized for Barclays algorithms. The algorithms utilize the Options Router (as described in FAQ 4) to post orders passively on exchange or to sweep available exchange liquidity. For more information on Barclays' listed equity options algorithms, please contact your Barclays sales representative.

13. Electronic trading order handling

For information on electronic order handling, including how the Market Access Rule is applied and how Barclays preserves client anonymity, please refer to Barclays' latest *Equities Electronic Order Handling FAQs* document available at barx.com/eqdisclosures.

14. Platform enhancements

At any time, Barclays and its third party provider may implement enhancements to its listed equity options trading platform, which includes Barclays options algorithms, the options router and core infrastructure components. The enhancements may be rolled out across the platform as a whole or in multiple phases. For some enhancements, a group of internal traders, and in some circumstances clients who have opted in, may be given access to functionality for verification purposes that is not available to all clients and which is not fully described in this Order Handling document. Internal traders who are given access to this functionality may be trading on behalf of clients. Please contact your Barclays sales representative for details on enhancements or new features currently being rolled out.

DISCLAIMER

OPTIONS DISCLOSURE: Options involve risk and are not suitable for all investors. Prior to entering into an options transaction, you should have received, read and understand the options risk disclosure document entitled "Characteristics and Risks of Standardized Options" available via the following link: <http://www.theocc.com/about/publications/character-risks.jsp> or by contacting your Barclays sales representative.

This communication has been prepared by Barclays. "Barclays" means any entity within the Barclays Group of companies, where "Barclays Group" means Barclays Bank PLC, Barclays PLC and any of their subsidiaries, affiliates, ultimate holding company and any subsidiaries or affiliates of such holding company. BARCLAYS IS A FULL SERVICE INVESTMENT BANK. In the normal course of offering investment banking products and services to clients, Barclays may act in several capacities (including issuer, market maker and/or liquidity provider, underwriter, distributor, index sponsor, swap counterparty and calculation agent) simultaneously with respect to a product, giving rise to potential conflicts of interest which may impact the performance of a product. This document is from a Barclays Trading and/or Distribution desk and is not a product of the Barclays Research department. Any views expressed may differ from those of Barclays Research. Barclays may at any time acquire, hold or dispose of long or short positions (including hedging and trading positions) and trade or otherwise effect transactions for their own account or the account of their customers in the products referred to herein which may impact the performance of a product. THIS COMMUNICATION IS PROVIDED FOR INFORMATION PURPOSES ONLY AND IT IS SUBJECT TO CHANGE. IT IS INDICATIVE ONLY AND IS NOT BINDING. Barclays is not offering to sell or seeking offers to buy any product or enter into any transaction. Any offer or entry into any transaction requires Barclays' subsequent formal agreement which will be subject to internal approvals and execution of binding transaction documents. Neither Barclays nor any of its directors, officers, employees, representatives or agents, accepts any liability whatsoever for any direct, indirect or consequential losses (in contract, tort or otherwise) arising from the use of this communication or its contents or reliance on the information contained herein, except to the extent this would be prohibited by law or regulation. Barclays is acting solely as principal and not as fiduciary. Barclays does not provide, and has not provided, any investment advice or personal recommendation to you in relation to the transaction and/or any related securities described herein and is not responsible for providing or arranging for the provision of any general financial, strategic or specialist advice, including legal, regulatory, accounting, model auditing or taxation advice or services or any other services in relation to the transaction and/or any related securities described herein. Accordingly Barclays is under no obligation to, and shall not, determine the suitability for you of the transaction described herein. You must determine, on your own behalf or through independent professional advice, the merits, terms, conditions and risks of the transaction described herein. Barclays is not responsible for information stated to be obtained or derived from third party sources or statistical services. Any past or simulated past performance including back-testing, modeling or scenario analysis contained herein is no indication as to future performance. No representation is made as to the accuracy of the assumptions made within, or completeness of, any modeling, scenario analysis or back-testing. All opinions and estimates are given as of the date hereof and are subject to change. The value of any investment may also fluctuate as a result of market changes. Barclays is not obliged to inform the recipients of this communication of any change to such opinions or estimates. This document is being directed at persons who are professionals and is not intended for retail customer use. For important regional disclosures you must read, visit the link relevant to your region. Please contact your Barclays representative if you are unable to access. EMEA <https://www.home.barclays/disclosures/important-emea-disclosures.html> APAC <https://www.home.barclays/disclosures/important-apac-disclosures.html> US <https://www.home.barclays/disclosures/important-us-disclosures.html> This communication is confidential and is for the benefit and internal use of the recipient for the purpose of considering the securities/transaction described herein, and no part of it may be reproduced, distributed or transmitted without the prior written permission of Barclays. Barclays offers premier investment banking products and services to its clients through Barclays Bank PLC. Barclays Bank PLC is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange. Barclays Bank PLC is registered in England No. 1026167 with its registered office at 1 Churchill Place, London E14 5HP. Barclays Capital Securities Limited is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority and is a member of the London Stock Exchange. Barclays Capital Securities Limited is registered in England No. 1929333 with its registered office at 1 Churchill Place, London E14 5HP. Barclays Bank Ireland PLC, is regulated by the Central Bank of Ireland. Registered in Ireland. Registered Office: One Molesworth Street, Dublin 2, Ireland, D02 RF29. Registered Number: 396330. VAT Number: IE4524196D. A list of names and personal details of every director of the company is available for inspection to the public at the company's registered office for a nominal fee. Calls are recorded in line with our legal and regulatory obligations, and for quality and monitoring purposes. Barclays Capital Inc. is a US registered broker/dealer affiliate of Barclays Bank PLC and a member of SIPC, FINRA and NFA. Barclays Capital Inc. operates out of 745 Seventh Avenue, New York, NY 10019. Where required pursuant to applicable US laws, rules and/or regulations, Barclays Capital Inc. accepts responsibility for the distribution of this document in the United States to US Persons. Where a communication is being directed at persons who are professionals, it is directed at institutional investors in the US as defined by FINRA Rule 2210(a)(4). BARX is a registered trademark of Barclays.