

J.P. MORGAN ELECTRONIC CLIENT SOLUTIONS

JPM-X Guidelines for Hong Kong

J.P. Morgan Broking (Hong Kong) Limited (**JPM Broking**) operates an alternative liquidity pool (**ALP**) in Hong Kong listed equities and exchange traded funds through its crossing service (**JPM-X**). JPM Broking is licensed by the Securities and Futures Commission (**SFC**) and JPM-X operates under a Type 7 license (providing automated trading services) granted by the SFC. These ALP guidelines (**Guidelines**) are prepared to provide comprehensive details relating to the operations of JPM-X.

In the Guidelines, clients who are permitted to route orders to JPM-X are referred to as **users**, which has the same meaning under Paragraph 19.2(g) of the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission (**Code of Conduct**).

For more information, please contact your J.P. Morgan Electronic Client Solutions contact or ecs-asia@jpmorgan.com

JPM-X is operated by JPM Broking as follows:

(a) Trading and operational matters

Hours of Operation: JPM-X is operated during the “Morning Session” and “Afternoon Session” of continuous trading on the Stock Exchange of Hong Kong Limited (**SEHK**).

Products to be Traded: Hong Kong listed cash equity and/or exchange-traded funds.

Manner of Operation: Orders submitted to JPM-X are not displayed to any parties other than staff involved in the operation of JPM-X. Please refer to section (k) of the Guidelines for further information.

JPM-X offers continuous, real-time matching of orders that it receives through the operation of various algorithmic and smart order routing (**SOR**) execution services¹ and orders sent specifically for participation in JPM-X (**Directed Orders**).

All incoming orders, regardless of their origin, are eligible for continuous real-time matching based on the liquidity available in the order book, depending on whether the particular incoming order:

1. has a participation constraint limiting the order flow type that it may be crossed against; and/or
2. is committed to a conditional quote message in the conditional order process (as described below).

All executions within JPM-X occur at or within the prevailing best bid and offer price publically disseminated by the SEHK and are consistent with all applicable price and quantity conditions placed on each order. Those conditions include minimum fill size

¹ J.P. Morgan's algorithmic and SOR execution services are provided by J.P. Morgan Securities (Asia Pacific) Limited, which is an affiliate of JPM Broking.

requirements as well as price parameters that are associated with any orders that are pegged to track market prices (e.g. "Mid").

Order Side Restrictions: Short Sale orders are not accepted.

Suspension of Trading: JPM-X may be suspended at the sole discretion of JPM Broking at any time without prior notice. Reasons for the suspension of JPM-X include, but not limited to when, (i) the SEHK is closed, (ii) a Volatility Control Mechanism is triggered (iii) market data is unavailable, or (iv) JPM Broking is unable to report matches to the SEHK within the prescribed timeframe for any reason.

Supported Order types: JPM-X accepts limit orders and market orders which have the option of being pegged to:

- 1) Mid: the midpoint of the prevailing best bid and offer
- 2) Far: the best offer
- 3) Near: the best bid

JPM-X supports the following *Time in Force* instructions:

- 1) DAY: the order will remain on the JPM-X order book for the current trading day and any unexecuted portion will be cancelled at the end of the day.
- 2) IOC: an immediate or cancel order instruction will fill to the extent it can and the remainder will be cancelled.

Conditional Order Process: As a technical design, JPM-X provides a process for finding potential trading interest using conditional parameters, called the Conditional Order Process. Trading interest is represented as a conditional order message from J.P. Morgan's SOR to JPM-X which describes the relevant trading criteria. The message is marked as conditional and therefore is not executable. If and when contra-side trading interest arises that could potentially match against the conditional order, an internal undisplayed invitation will be returned from JPM-X to the SOR. Upon receipt of the invitation, the SOR has the option to send an executable order to JPM-X.

Conditional order messages and invitations sent during the Conditional Order Process are handled on an automated basis between the SOR and JPM-X and are not disseminated externally. The conditional order message is solely limited to orders using J.P. Morgan's SOR and is not available to users sending Directed Orders.

(b) User restrictions

In accordance with Paragraphs 19.2(g), 19.4 and Section 7 of Schedule 8 to the Code of Conduct, JPM-X is offered only for the use by, and for the benefit of, qualified investors (as defined in the Paragraph 19.2(f) of the Code of Conduct).

JPM Broking reserves the right to limit or prohibit use of JPM-X at its own discretion.

Users must be familiar with, and agree to abide by, all applicable rules and regulations, including any requirements imposed by SEHK.

(c) Opt-out arrangement

Users may opt-out of interacting with JPM-X at any time.

(d) User priority, order routing and execution methodology

Routing of Orders: JPM-X only accepts inbound user orders and does not route orders outbound to any internal or external destination.

User Priority & Execution Methodology: JPM-X continuously looks for crossing opportunities at or within the prevailing best bid and offer price for orders.

JPM-X does not execute a cross if the stock is crossed (where the bid price exceeds the offer price), locked (where the bid price is equal to offer price), or if there is a one sided order book (i.e. no bid/offer price). JPM-X also does not execute a cross during a market-wide trading halt or suspension of specific securities. Additional crossing restrictions may be imposed from time to time as JPM Broking deems appropriate.

In looking for crossing opportunities, JPM-X complies with any applicable participation instructions associated with each subscriber's order. All orders, once found eligible for crossing, are executed on the basis of price/time priority.

The order book is tiered using the order flow types as follows:

Tier	Description
i	Institutional Flow
ii	Broker-Dealer Flow (Aggregator)

Users who are permitted to route orders to JPM-X may choose to opt-out of interacting with one or more tiers.

Reporting: Once a cross has been executed on JPM-X, the trade is immediately reported by JPM Broking to the SEHK.

(e) Transaction pricing

There are no additional fees incurred by users of JPM-X beyond standard agency commission charges.

(f) Order cancellation

At its absolute discretion, JPM Broking may cancel any orders resting, or trades executed, in JPM-X. In such instances, JPM Broking will contact impacted users and advise of such cancellations.

(g) Internal control procedures to ensure the fair and orderly function and address potential conflict of interest issues

J.P. Morgan has Risk Management policies and procedures in place to address risks to operations across subsidiaries and affiliates, including JPM Broking and the operation of JPM-X. These procedures address, among other things, system capacity, security, and contingency planning. The JPM-X matching engine processing capacity is regularly reviewed to ensure that it can handle the system's average and peak message and order volumes.

J.P. Morgan has Conflict of Interest policies and procedures in place covering its subsidiaries and affiliates, including JPM Broking and the operation of JPM-X. Factors relevant to JPM-X include, but are not limited to, the following:

- 1) Users may choose to opt-out of interacting with JPM-X.
- 2) User orders are treated equally within JPM-X. No preferential treatment is given to any particular user or tier within JPM-X.
- 3) Users may choose to opt-out of interacting with a particular tier.
- 4) JPM-X is an un-displayed venue with all orders placed onto its order book given full anonymity.
- 5) JPM-X does not allow for the use of indications of interest.
- 6) Procedures are in place to ensure that only authorized staff has access to JPM-X's production systems and data-storage facilities.

(h) Potential risks

JPM-X has dependencies on services provided by the SEHK, including those for market data dissemination and trade reporting. Failure to receive accurate and timely bids or offers, or trade reporting acknowledgements within regulatory requirements, could impact the operation of JPM-X. Similarly an internal failure of a trading component could temporarily impact users' ability to enter, cancel, amend or receive acknowledgements or executions.

(i) Transaction of proprietary orders in JPM-X

J.P. Morgan orders, inclusive of internal proprietary or principal trading operations (as defined by Paragraph 19.2(e) of the Code of Conduct) are restricted from participating in JPM-X.

(j) Whether the orders of different users of JPM-X may be aggregated

Not applicable.

(k) Staff access to real-time trading information concerning orders placed into, and transactions conducted in JPM-X

Department	Title	Rationale for access
Technology	Electronic Trading Technology	Technology support
Equities	Electronic Client Solutions (ECS)	Risk management, account coverage and client services
	ECS Linear Quantitative Research	Analysis on behalf of covered clients

Note: Other teams (such as Operations and Compliance) may have access to trading information on a post execution basis.

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These Guidelines are provided for your information only and do not supersede any agreement in place between you and J.P. Morgan affiliate. These Guidelines do not constitute: (i) research or a product of any J.P. Morgan research department, (ii) an offer to sell, a solicitation of an offer to buy, or a recommendation for any investment product or strategy, or (iii) any investment, legal or tax advice. You are solely responsible for deciding whether any investment product or strategy is appropriate for you based upon your investment goals, financial situation and tolerance for risk.

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