

Part III:

Item 9a.:

Conditional Orders and Indications of Interest

- a. Does the NMS Stock ATS send or receive any messages indicating trading interest (e.g., IOIs, actionable IOIs, or conditional orders)? If yes, identify and explain the use of the messages, including information contained in messages (e.g., price or size minimums), how the message is transmitted (e.g., order management system, smart order router, FIX), when the message is transmitted (e.g., automatically by the ATS, or upon the sender's request), the type of Persons that receive the message (e.g., Subscribers, Trading Centers), responses to conditional orders or IOIs (e.g., submission to firm-up conditional orders), and the conditions under which the message might result in an execution in the ATS (e.g., response time parameters, interaction, and matching).

Sigma X2 accepts "Conditional orders" which are conditional indications of trading interest. Direct Subscribers can enter Conditional orders via a FIX connection. Indirect Subscribers may leverage Conditional orders through non-ATS GSCO offered products including GSCO algorithms, GSCO SOR, and the GSCO Direct Market Access ("DMA") System, as outlined in Part III Item 5 (Means of Entry). A Conditional order is never executed. Instead, upon entry, a Conditional order will look to match with a contra Firm order or Conditional order in Sigma X2.

If a match is found for a Conditional order, an invitation to trade, known as a Firm Up Request, is sent to the Participant.

When a Firm Up Request is transmitted to a Participant via FIX message, the Conditional order to which it relates is cancelled by Sigma X2. A Firm Up Request contains a unique Firm Up ID, the quantity of the conditional match, and certain order details of the Conditional order to which it relates (e.g., price). Upon receipt of a Firm Up Request, a Participant may send a Firm Up order, but is not obligated to do so. To be accepted by Sigma X2, a Firm Up order must be received by Sigma X2 within 1 second of when Sigma X2 sent the Firm Up Request (i.e., Timeout Period). A Firm Up order received after the Timeout Period has elapsed will be rejected by Sigma X2.

When a Conditional order matches with another Conditional order, if a Firm Up order is subsequently sent by each side, the Firm Up orders will interact with each other. However, in the case where the first Firm Up order is cancelled by the Participant, cancelled by Sigma X2, or rejected by Sigma X2 before the second Firm Up order is received, the second Firm Up order is eligible to match with a Firm order(s) on the book. If both Firm Up orders are received by Sigma X2 before the Timeout Period elapses, the orders will be partially or fully executed if their respective order attributes still allow for a match. If, for example, the NBBO price moves away from the price of the Conditional match, the Firm Up orders will not execute.

As with Firm Orders, both Conditional and Firm Up orders can be entered with the Post-Only condition. If a Conditional or Firm Up order is entered with this order condition, it can only match with a liquidity-taking order (as described in Part III, Item 11.c). A Post-Only condition on a Firm Up order does not need to match a Post-Only condition on the originating Conditional order. For example, a Conditional order can be entered without a Post-Only condition but the resulting Firm Up can contain a Post-Only condition. In a Conditional to Conditional match, if the resulting Firm Up orders are both designated as Post-Only, no execution will occur and the orders will be cancelled by Sigma X2 after the Timeout Period elapses.

Before the Timeout Period elapses, a Participant may modify, replace, or cancel a Firm Up order if it is first-in-time of two Firm Up orders resulting from a Conditional to Conditional match. A Firm Up order that does not receive an execution before the Timeout Period elapses is considered expired and will be cancelled by Sigma X2. Firm Up orders received by Sigma X2 after the Timeout Period has elapsed will be rejected.

When a Conditional order matches with a Firm order, the Firm order could be executed or cancelled by the Participant before a Firm Up order is received by Sigma X2. In such instances, the Firm Up order will then match with any eligible resting contra-side order(s) and any unmatched portion of the Firm Up order will be cancelled.

Conditional orders and Firm Up orders are identified through values in FIX Tag 23012. See Part III, Item 8.a regarding minimum and maximum order sizes.

A Conditional order must have a Time In Force of Day or the order will be rejected. MinQty is supported as a parameter for Conditional orders, but is not required. A Conditional order may be modified, replaced or cancelled by a Participant, but attempts to change the order from Conditional to Firm or vice-versa will result in a cancel.

Only the following order details of a Firm Up order must match the original Conditional order: Symbol, Side, Price, OrderType, Execlnst (Market Peg, Mid Peg, Primary Peg), and MinQty. The Firm Up order must also contain the Firm Up ID from the Firm Up Request message. If any of these details are missing or differ from the original Conditional order, the Firm Up order will be rejected. A Firm Up order may have a different quantity than the original Conditional order and may have a different Time In Force (Day or IOC) than the Conditional order (Day only). Within Sigma X2, a Firm Up order can only be executed as an IOC order and, accordingly, a Firm Up order entered as Day will be automatically converted to IOC for execution purposes. A Time In Force value of IOC will be reflected on the FIX execution message. Additionally, a Firm Up order with a Time In Force of IOC may remain active in Sigma X2 from entry until cancelled, executed or the Timeout Period expires.

Firm Up orders are not guaranteed to receive an execution. If a Firm Up order receives a partial execution, any unfilled portion of the order will be cancelled.

Firm orders, by default, are eligible to interact with Conditional orders, but Direct Subscribers can opt-out of this behavior. ~~This can be done on a per-order basis or at the FIX session level by contacting GSCC Coverage.~~ This opt out only applies to interactions (i.e., matches) with Conditional orders. Firm orders that are opted-out of interacting/matching with Conditional orders can still match and execute with Firm Up orders. Consider the following example:

- Order A is a Firm order to buy and eligible to match with Conditional orders.
- Order B is a Firm order to buy and not eligible to match with Conditional orders.
- Order A has a higher priority than Order B on the basis of order entry time
- Order C is a Conditional order to sell.
- Upon receipt by Sigma X2, Order C matches with Order A and a Firm Up Request is sent for Order C
- Before a Firm Up order is received for Order C, Order A is cancelled
- The Firm Up order for Order C will match with Order B

Firm orders always have matching priority over Conditional orders. Accordingly, upon receipt by Sigma X2, Conditional orders will match with eligible contra-side Firm orders before eligible contra-side Conditional orders, including Conditional orders that have a better price or earlier entry time than a contra-side Firm order(s). Conditional to Firm order matching (like Firm to Firm order matching) follows price/broker/time priority. Consider the following example:

- The spread of the stock for Orders A, B, and C is \$10.00 x \$10.02
 - Order A is a Conditional order to buy 2,000 shares at \$10.01 that is resting in Sigma X2
 - Order B is a Firm order to buy 1,000 shares at \$10.00 that is resting in Sigma X2
 - Order B was received by Sigma X2 after Order A
 - Order C is a Conditional order to sell 1,000 shares at \$10.00 and is received by Sigma X2 after Orders A and B
 - As outlined in the priority rules, Order C will conditional match with Order B.
- Conditional to Conditional order matching follows price/broker/size/time priority.
Counterparty Classification, as described in Part III Item 13, does not apply to Conditional orders.

Item 14.a.: Counter-Party Selection

- a. Can orders or trading interest be designated to interact or not interact with certain orders or trading interest in the NMS Stock ATS (e.g., designated to execute against a specific Subscriber's orders or trading interest or prevent a Subscriber's order from executing against itself)? If yes, explain the counter-party selection procedures, including how counter-parties can be selected, and whether the designations affect the interaction and priority of trading interest in the ATS.

For Firm and Conditional orders, Participants can limit the counterparties with which their orders interact through the use of certain order parameters and conditions (e.g., use of MinQty to specify a minimum quantity for execution against any single contra order or use of Affiliate-Match Prevention to block a match with an affiliated Participant) (See Part III, Item 11.c.). For Firm orders only, counterparties can be limited by the Counterparty Classification Framework (e.g., to allow liquidity-providing Participants to designate the category or categories of liquidity-taking orders with which they may interact) (See Part III, Item 13.a.). Additionally, a Direct Subscriber can limit the interaction of Firm orders with Conditional orders on an order by order basis ~~or opt-out at the FIX session level~~ (See Part III, Item 9.a.).