Part II, Item 1.a: Broker-Dealer Operator Trading Activities on the ATS

a. Are business units of the Broker-Dealer Operator permitted to enter or direct the entry of orders and trading interest (e.g., quotes, conditional orders, or indications of interest) into the NMS Stock ATS?
_X_ Yes ___ No

If yes, name and describe each type of business unit of the Broker-Dealer Operator that enters or directs the entry of orders and trading interest into the ATS (e.g., NMS Stock ATS, type of trading desks, market maker, sales or client desk) and, for each business unit, provide the applicable MPID and list the capacity of its orders and trading interest (e.g., principal, agency, riskless principal).

Yes. GSCO is a leading global investment banking, securities and investment management firm that provides a wide range of financial services to a substantial and diversified client base that includes corporations, financial institutions, governments and individuals. As such, GSCO has a number of business units that engage in various securities trading activities that may enter and/or direct the entry of orders to Sigma X2 using limit, market (for Benchmark Cross orders only) or Peg order types, and using GSCO systems that include GSCO order handling algorithms, smart order routing, or directed orders. Sigma X2 accepts Firm orders, Conditional orders (including Benchmark Cross orders), and Firm Up orders associated with Conditional orders ("Firm and Conditional orders" unless otherwise specified) as further described in Part III, Item 7 (Order Types and Attributes) and Item 9 (Conditional Orders and Indications of Interest). The system does not accept any other form of trading interest. Set forth below are the GSCO business units that are responsible for facilitating GSCO's trading activities on Sigma X2 in an agency or principal capacity:

SALES TRADING & GSET: The Goldman Sachs Electronic Trading ("GSET") business unit and the Sales Trading business unit provide execution services to high-touch (Sales Trading) and low-touch (GSET) clients in single stock, derivatives, program trades, or synthetics/ETFs. Sales Trading personnel may facilitate the routing of orders to internal GS trading desks or to various listed exchanges and/or liquidity pools, which can include order routing to Sigma X2 for execution. GSET provides clients with access to algorithmic strategies and systems the clients can use to route orders to various listed exchanges and/or liquidity pools, which can include order routing to Sigma X2 for execution. These business units can send orders to Sigma X2 in an agency capacity under the MPIDs GSCO, GSCS and GSLT.

EQUITY ONE DELTA - AMERICAS: This GSCO business unit engages in market making and market making-related activities in equities products (including single stocks and ETFs) and hedges the risks associated with those activities. The activities of this business unit include block positioning, effecting transactions on exchanges, creation and redemption of ETFs and corresponding equity underlier baskets, and OTC facilitation of client, customer, and counterparty transactions in equities products. This business unit sends orders to Sigma X2 in agency and principal capacities under the MPID GSCO.

EQUITY FLOW FINANCING - AMERICAS: This GSCO business unit engages in market making-related activities in one delta equity synthetic products and conducts hedging related to its own market making activities. The activities of this business unit include OTC facilitation of client, customer and counterparty transactions. This business unit sends orders to Sigma X2 in a principal capacity under the MPID GSCO.

EQUITY DERIVATIVES: The GSCO business unit within Global Derivatives engages in market making and market making-related activities in single stock and index based listed/exchange-traded derivative securities and OTC instruments (e.g. convertibles and derivatives), and performs hedging of corresponding risk associated with those activities. The activities of this business unit include agency execution of exchange-traded derivative securities, as well as listed and OTC facilitation of client, customer, and counterparty derivatives transactions. This business unit sends orders to Sigma X2 in agency and principal capacities under the MPID GSCO.

CREDIT - US FLOW TRADING: The GSCO business within Global Credit engages in market making-related activities in credit products, including fixed income, currency and commodity ETFs, and hedges the risks associated with these activities. These activities include market making, OTC facilitation of client, customer and counterparty transactions, and transactions executed

on various third-party electronic trading platforms in the United States. This business unit sends orders to Sigma X2 in agency and principal capacities under the MPID GSCO.

CREDIT - EM CREDIT: The GSCO Emerging Markets Credit business within Global Currencies and Emerging Markets engages in market making-related activities in emerging markets products and hedges the risks associated with these activities with emerging market ETFs. This business unit sends orders to Sigma X2 in a principal capacity under the MPID GSCO.

IRP - AMERICAS RATES: This GSCO business unit engages in market making-related activities in interest rate products, including interest rate ETFs, and hedges the risks associated with these activities. These activities include market making and OTC facilitation of client, customer and counterparty transactions. This business unit sends orders to Sigma X2 in agency and principal capacities under the MPID GSCO.

EQUITIES – ELECTRONIC MARKET MAKING – AMERICAS: This GSCO business unit engages in market making and market making-related activities through the use of quantitative research, algorithms and systematic execution of securities. The activities of this business unit include exchange market-making and OTC facilitation of client, customer, and counterparty transactions in equities products. This business unit sends orders to Sigma X2 in a principal capacity under the MPID GSCO.

In addition to the above referenced business units, the Equities Delta Hedging Facility ("EDHF"), is the Firm's automated hedging tool used to manage its equities-related principal risk positions. As part of the Firm's process for managing principal risk, various above-described business units within GSCO's equities business may send principal equities orders to EDHF. EDHF then uses the GSCO algorithms and smart order router (SOR) to manage the Firm's risk position. Such orders can be routed to Sigma X2 in a principal capacity under the MPID GSCO. The EDHF tool operates within the Equity Derivatives business unit.

Part II, Item 5.a: Other Products and Services

a. Does the Broker-Dealer Operator offer Subscribers any products or services for the purpose of effecting transactions or submitting, disseminating, or displaying orders and trading interest in the NMS Stock ATS (e.g., algorithmic trading products that send orders to the ATS, order management or order execution systems, data feeds regarding orders and trading interest in, or executions occurring on, the ATS)?
_X_ Yes ___ No

If yes, identify the products or services offered, provide a summary of the terms and conditions for use, and list here the applicable Item number in Part III of this form where the use of the product or service is explained. If there is no applicable Item in Part III, explain the use of the product or service with the ATS here.

Subscribers can access Sigma X2 directly ("Direct Subscribers") or indirectly ("Indirect Subscribers"), and all Subscribers can utilize both ATS and non-ATS GSCO offered products and services.

Direct Subscribers access Firm and Conditional order types at Sigma X2 via a FIX connection. Indirect Subscribers access Firm and Conditional order types at Sigma X2 via non-ATS GSCO offered products and services, which may include

i. GSCO algorithms, which accept parent-level orders and can send portions of such orders (i.e., child orders) to GSCO's SOR. GSCO's SOR may route such orders to Sigma X2 or other market centers, as described below;

ii. The GSCO SOR (hosted in Carteret and NY4), which can route various orders to Sigma X2 or other market centers or may route directed orders to Sigma X2; and

iii. The GSCO Direct Market Access ("DMA") System, which GSCO clients may use to direct orders to Sigma X2 or other market centers using their own algorithms, i.e., non-GSCO algorithms. Orders routed via the GSCO DMA System do not pass through, and are not known by, GSCO's SOR.

GSCO Affiliates, as well as the GSCO business units identified in Part II, Item 1.a other than Equities – Electronic Market Making – Americas (which is a Direct Subscriber), access Sigma X2 as Indirect Subscribers.

Direct Subscribers' Firm and Conditional orders experience less latency than Indirect Subscribers' orders.

Sigma X2 does not display orders to Participants, or outside of Sigma X2. However, GSCO's SOR is aware of orders it has posted in all venues, including Sigma X2. The GSCO SOR uses knowledge of Firm orders to predict venue-level fill rates. This data is not communicated outside of the SOR.

Part III, Item 5.c: Means of Entry

c. Are there any other means for entering orders and trading interest into the NMS Stock ATS (e.g., smart order router, algorithm, order management system, sales desk)?
_X_ Yes ___ No

If yes, identify and explain the other means for entering orders and trading interest, indicate whether the means are provided through the Broker-Dealer Operator, either by itself or through a third-party contracting with the Broker-Dealer Operator, or through an Affiliate of the Broker-Dealer Operator, and list and provide a summary of the terms and conditions for entering orders or trading interest into the ATS through these means.

Indirect Subscribers can enter and access Firm and Conditional order types at Sigma X2 via non-ATS GSCO offered products and services, which may include:

i. GSCO algorithms, which accept parent-level orders and can send portions of such orders (i.e., child orders) to GSCO's SOR. GSCO's SOR may route such orders to Sigma X2 or other market centers, as described below;
ii. The GSCO SOR (hosted in Carteret and NY4), which can route various orders to Sigma X2 or other market centers or may route directed orders to Sigma X2; and
iii. The GSCO DMA System, which GSCO clients may use to direct orders to Sigma X2 or other market centers using their own algorithms, i.e., non-GSCO algorithms. Orders routed via the GSCO DMA System do not pass through, and are not known by, GSCO's SOR.

Firm and Conditional orders sent to Sigma X2 by Indirect Subscribers~~, GSCO Affiliates, and GSCO business units~~ via GSCO algorithms and the GSCO SOR are sent directly to Sigma X2 once the routing decision is made by the GSCO SOR, and use a FIX connection and the same FIX protocol as described in the response to Part III, Item 5.a. above.

Part III; Item 9: 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)?
_X_ Yes ___ No

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, ExecInst (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 GSCO 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.

The Counterparty Classification Framework, as described in Part III, Item 13, includes Conditional Orders when determining Participant Categories, but not when determining Liquidity Taker Categories. Conditional Orders do not have the ability to restrict the Liquidity Taker Categories with which such orders may interact. However, Conditional Orders routed by GSCO algorithms and the GSCO SOR, on behalf of Indirect Subscribers, do have the ability to restrict the Participant Categories with which such orders may interact.

BENCHMARK CROSS CONDITIONAL ORDERS

The foregoing description of Conditional orders applies to Benchmark Cross Conditional orders in the same way it applies to other Conditional orders submitted by GSCO algorithms on behalf of Indirect Subscribers, except as follows:

Benchmark Cross Conditional orders can only match with contra-side Benchmark Cross Conditional Orders and, therefore, do not match or interact with Firm orders. Additionally, the Post-Only feature is not supported on Benchmark Cross Conditional orders.

When a Firm Up Request is transmitted, the Benchmark Cross Conditional order to which it relates is cancelled by Sigma X2. The Firm Up Request contains a unique Firm Up ID, the quantity of the conditional match, the calculated duration of the crossing interval, and certain order details of the Conditional order to which it relates (e.g., limit price, if applicable).

The following order details of a Benchmark Cross Firm Up order must match the original Conditional order: Symbol, Side, Price, OrderType, MinQty, Principal Restriction and Duration (if other than the default crossing interval).

~~BENCHMARK CROSS CONDITIONAL ORDERS~~

~~The foregoing description of Conditional orders applies to Benchmark Cross Conditional orders in the same way it applies to other Conditional orders submitted by GSCO algorithms on behalf of Indirect Subscribers, except as follows:~~

~~Benchmark Cross Conditional orders can only match with contra-side Benchmark Cross Conditional Orders and, therefore, do not match or interact with Firm orders. Additionally, the Post-Only feature is not supported on Benchmark Cross Conditional orders.~~

~~When a Firm Up Request is transmitted, the Benchmark Cross Conditional order to which it relates is cancelled by Sigma X2. The Firm Up Request contains a unique Firm Up ID, the quantity of the conditional match, the calculated duration of the crossing interval, and certain order details of the Conditional order to which it relates (e.g., limit price, if applicable).~~

~~The following order details of a Benchmark Cross Firm Up order must match the original Conditional order: Symbol, Side, Price, OrderType, MinQty, Principal Restriction and Duration (if other than the default crossing interval).~~

Benchmark Cross Conditional order matching follows quantity/duration/time priority, and the Counterparty Classification Framework does not apply.

Part III, Item 11: <u>Trading Services, Facilities and Rules</u>

c. Explain the established, non-discretionary rules and procedures of the NMS Stock ATS, including order interaction rules for the priority, pricing methodologies, allocation, matching, and execution of orders and trading interest, and other procedures governing trading, such as price improvement functionality, price protection mechanisms, short sales, locked-crossed markets, the handling of execution errors, and the time-stamping of orders and executions.

Rules governing pricing and matching priority are described below. For purposes of this Item 11.c., references to Conditional orders do not include Benchmark Cross Conditional orders. Rules governing pricing and matching priority for Benchmark Cross orders are separately described at the end of this section.

MATCHING PRIORITY

For Firm to Firm order matching, Sigma X2's matching logic is based on price/broker/time priority and the Counterparty Classification Framework (See Part III, Item 13.a.). At a given price level, this logic prioritizes opposite side orders from the same or affiliated broker-dealer Direct Subscriber(s) for crossing as long as they are eligible to match within the Counterparty Classification Framework. As outlined in Part III, Item 9.a, Firm orders always have priority over Conditional orders. Conditional orders will match with eligible contra-side Firm orders ahead of 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; Conditional to Conditional order matching follows price/broker/size/time priority. The Counterparty Classification Framework, as described in Part III, Item 13, includes Conditional Orders when determining Participant Categories, but not when determining Liquidity Taker Categories. Conditional Orders do not have the ability to restrict the Liquidity Taker Categories with which such orders may interact. However, Conditional Orders routed by GSCO algorithms and the GSCO SOR, on behalf of Indirect Subscribers, do have the ability to restrict the Participant Categories with which such orders may interact.

By default, matching priority exists at the individual broker-dealer Direct Subscriber market participant identifier ("MPID") level. Alternatively, a broker-dealer Direct Subscriber can modify the default such that its "broker" status is instead based on all of its affiliated MPIDs. Under this approach, order flow routed from customers, businesses or desks of a broker-dealer Direct Subscriber under multiple affiliated MPIDs will have priority to execute with opposite side orders routed to Sigma X2 by the broker-dealer Direct Subscriber using any of the affiliated MPIDs. Direct Subscribers can opt-out of the "broker" priority element by selecting the self-match prevention condition, as further described in the "Other Order Parameters and Conditions" discussion in this section.

GSCO broker status is inclusive of all of its affiliated MPIDs. Non-broker-dealer Direct Subscribers, as clients of GSCO, will receive matching priority with GSCO and its affiliated MPIDs. Specifically, all Firm and Conditional orders routed to Sigma X2 under a GS

identifier ("GSID"), including GSCO client and/or principal orders, shall receive matching priority across all GSCO MPIDs.

Orders in Sigma X2 are treated as liquidity-taking or liquidity-providing based on their time of order arrival. When Sigma X2 assesses two orders for a potential match, the liquidity-providing order is the order that was first-in-time, and the liquidity-taking order is the order that was second-in-time. This applies to Firm and Firm Up orders. As described in Part III, Item 9.a, Conditional orders do not receive executions and, accordingly, are not designated as liquidity-providing or liquidity-taking. Firm and Firm Up orders subject to the Post-Only condition (described below), which are always liquidity-providing orders, are only assessed for potential matching with orders that Sigma X2 received later-in-time. For example, a common execution (matching scenario) occurs in Sigma X2 when a resting Firm Day order executes against an incoming IOC order and Sigma X2 classifies the resting Day order as liquidity-providing and the IOC order as liquidity-taking. Please refer to the attached Matching Scenarios grid for examples with respect to Firm and Firm Up orders. If a Conditional order is entered with a Post-Only condition, only a contra order entered later-in-time can be a match for the Conditional order, generating a Firm Up Request. Please see Part III, Item 9.a. for additional order matching information for Conditional orders.

As noted above, matching priority can be impacted where Participants choose to impose certain conditions (e.g., self-match prevention) on their Firm and Conditional orders to limit interaction with orders in Sigma X2, as further described in the "Other Order Parameters and Conditions" discussion in this section.

Any change to a Firm or Conditional order by a Participant will reset its time priority, with the exception of reduction in the size of an order or a short sale change (i.e., short sell order changed to long sell order or long sell order changed to a short sell order) as further discussed below. System updates to the Assigned Limit Price of an order will not change time priority (e.g., Pegged Orders).

OTHER ORDER PARAMETERS AND CONDITIONS
The execution priority (outlined above) may change in instances where the Participants choose to impose certain conditions on their orders, including:
- Minimum Executable Quantity ("MinQty") - allows Participants to specify a minimum quantity for execution against any single contra order. Participants can select this feature on an order-by-order basis.

Sigma X2 does not aggregate contra-side orders to meet the MinQty. The MinQty specified on an order can only be filled by a single contra-side order. To illustrate, if a Participant's order has a MinQty of 300 shares, that order can be filled only against a single contra-side order of at least 300 shares, not by multiple contra-side orders totaling 300 shares.

When multiple contra-side orders are matched in one matching cycle against an order with MinQty enabled, each individual contra-side order must satisfy the MinQty, but it is possible for a single execution to be less than the MinQty. To illustrate, if a Participant has an order for 500 shares and a MinQty of 300 shares and there are two contra-side orders of 300 shares each, the Participant's 500 share order will execute against each 300-share order--first for 300 shares and then for the remaining 200 shares--since both contra-side orders meet the Participant's MinQty.

Participants may utilize Tag 9500 (MinQtyInstruction) to specify the method by which the MinQty instructions are to be applied in the event of a leaves quantity that is less than the MinQty: A, which specifies that the order becomes All or None if the leaves quantity is less than the minimum executable quantity; or M, which specifies that the order is canceled back if the leaves quantity is less than the minimum executable quantity. Under the default setting, an order will become All or None if the leaves quantity is less than the minimum executable quantity. Firm Up orders only support the M value.

- Self-Match Prevention - allows Participants to block a match with themselves for regulatory reasons (e.g., prevents wash trades). Participants can select this feature at the Participant-level (i.e., at the MPID- or GSID-level, as applicable) or on an order-by-order basis.

- Affiliate-Match Prevention - allows Participants to block a match with an affiliated Participant. Sigma X2 applies this feature at the Participant-level.

- Agency-Only Execution - allows Participants to block principal executions with GSCO (e.g., where required pursuant to Section 28(e) of the Exchange Act). Sigma X2 applies this feature at the Participant-level or on an order-by-order basis.

- Post-Only - accepted on Firm and Conditional orders allows Participants to submit orders that will only execute when they are first-in-time (i.e., liquidity-providing orders). Post-Only orders do not price slide and will be given an Assigned Limit Price upon entry (as described in Part III, Item 7.a). They can be entered with any peg type. Participants can select this feature on an order-by-order basis.

- Counterparty Classification by Liquidity Taker Categories - for Firm orders only, allows liquidity-providing Participants (described above) to designate the category or categories of liquidity-taking orders with which their liquidity-providing orders may interact (described in Part III, Item 13 a.). Participants can select this feature at the Participant-level or on an order-by-order basis.

- Counterparty Classification by Participant Categories - allows ~~GSCO~~ the GSCO Direct Subscriber business unit and the GSCO algorithms and the GSCO SOR~~,~~ routing on behalf of Indirect Subscribers~~,~~ (collectively, "GSCO Order Sources") to ~~determine~~specify the Participant Categories with which such orders may interact in the ATS (described in Part III, Item 13.a).

In accordance with such instructions, Sigma X2 matching logic would bypass matching of Firm and Conditional orders as required by the above conditions. Participants can request the application of the above conditions through their Coverage teams. GSCO Coverage employees implement such requests, which become effective the following trading day.

Additional non-discretionary rules and procedures of Sigma X2 include:
PRICE IMPROVEMENT

Either the provider or taker of liquidity, or both, can receive price improvement. Price improvement is not necessarily split equally between a liquidity provider and a liquidity taker; instead, the execution price will be the price closest to the midpoint of the NBBO. Included as an attachment is a chart that illustrates price improvement in Sigma X2.

PRICE PROTECTION MECHANISMS
All Firm and Conditional orders in Sigma X2 require a Limit Price and will be given an Assigned Limit Price as described in Part III, Item 7.a. No order will be given an execution that would violate the order's Limit Price. No executions will take place outside the NBBO. Sigma X2 will suspend matching in a symbol that is currently quoted in a LULD straddle state.

SHORT SALES AND REGULATION SHO
Participants may enter short sale orders in compliance with Regulation SHO. This rule applies to short sale orders from U.S. registered broker-dealer subscribers and, as discussed below, each Firm and Conditional short sale order must specify that a locate has been obtained in accordance with Regulation SHO Rule 203(b)(1). Sigma X2 will rely on the locate exemption provided in Rule 203(b)(2)(i) when accepting short sale orders from its U.S. registered broker-dealer Direct Subscribers that are obligated to comply with Rule 203(b)(1). For non-broker-dealer Direct Subscribers, Sigma X2 will reject any short sale order that does not identify the broker who provided the locate.

For short sale orders subject to Rule 201 under Regulation SHO that are not permissibly priced for execution (i.e., not priced above the Constructed NBB or SIP NBB (as defined in response to Part III, Item 23), as the case may be), the Assigned Limit Price will be the lowest permissible price in compliance with Rule 201 (including in sub-penny increments for orders that may be priced in sub-pennies pursuant to Rule 612 under Regulation NMS). Such orders are executed at the Assigned Limit Price if there is an available contra-side order or, if not, they are held for execution at the new Assigned Limit Price or better. As quoted prices change, the Assigned Limit Price is updated to the lowest permissible price for execution under Rule 201 down to an order's original limit price. An order that is re-priced in this manner under Rule 201 does not have its original priority changed. Instead, the priority of such an order is established based on its original Assigned Limit Price.

LOCKED/CROSSED MARKETS
Sigma X2 will not execute Firm or Firm Up orders during a locked or crossed market.

TIME-STAMPING OF ORDERS AND EXECUTIONS Orders are timestamped in microseconds at the time they are accepted by Sigma X2. Executions are timestamped in microseconds at the time that orders are matched.

ERRORS
GSCO handles errors involving Sigma X2 in accordance with the Firm's error policy. Bona fide errors are booked to the Sigma X2 error account. To remedy an error, using the Sigma X2 error account, GSCO will buy or sell shares, as needed, including through the use of GSCO algorithms and SOR, which may result in executions at various exchanges and market centers, including Sigma X2.

BENCHMARK CROSS

MATCHING PRIORITY AND ORDER PARAMETERS

Sigma X2's Benchmark Cross matching logic follows quantity/duration/time priority.

Matching priority can be impacted where Participants choose to impose certain conditions (e.g., self-match prevention) on orders to limit interactions. For instance, Minimum Executable Quantity ("MinQty"), which allows a GSCO algorithm to specify a minimum quantity for matching and execution against any single Benchmark Cross contra order, as well as Self-Match Prevention, Affiliate-Match Prevention, and Agency-Only Execution, which are outlined above, are supported order parameters for Benchmark Cross. Duration, which specifies the maximum eligible crossing interval duration a given Benchmark Cross order is willing to interact, is supported as an optional order parameter. If no Duration is specified, the default crossing interval time (described below) is applied. The MinQtyInstruction tag and the Post-Only condition are not supported. Additionally, the Counterparty Classification Framework described in Part III, Item 13, is not applicable.

ORDER HANDLING

Any modification to a Benchmark Cross Conditional order will reset the order priority. As outlined in Part III, Item 7.a, matched Benchmark Cross orders cannot be modified. Benchmark Cross orders can be canceled by the Participant before a match is found, or after a match is found until the crossing interval ends.

BENCHMARK CROSS AVERAGE PRICE CALCULATION

Benchmark Cross executes the matched orders at the VWAP over the crossing interval. This crossing interval is determined by finding the overlapping time window shared between the durations specified by each of the two matched Benchmark Cross orders. The minimum crossing interval time is thirty (30) seconds, while the maximum crossing interval time is two (2) minutes. If no crossing interval time is assigned to the order, the maximum crossing interval time is the default. The crossing interval begins when Sigma X2 receives a Benchmark Cross Firm Up order and matches it with a contra-side Benchmark Cross Firm Up order. Upon completion of the crossing interval (unless the crossing interval ends prematurely, as described below), one execution will occur at the VWAP.

The VWAP is calculated based upon executions reported to the SIP during the crossing interval, excluding certain trade conditions. Trade prices reported to the Nasdaq Unlisted Trading Privileges (UTP) Plan with the following sale conditions will be excluded when calculating the VWAP for the match period: Average Price Trade, Cash Sale, Bunched Sold Trade, Price Variation Trade, Odd Lot Trade, Market Center Official Close, Prior Reference Price, Market Center Official Open, Seller, Form T, Extended trading hours (Sold Out of Sequence), Contingent Trade, Sold (out of sequence), Derivatively priced, Qualified Contingent Trade (QCT), and Sold Last - in each case to the same extent such conditions (and other similar conditions) are excluded from updating the last sale price pursuant to the UTP Plan, as it may be amended from time to time. Trade prices reported to the Consolidated Tape Association (CTA) and Consolidated Quotation (CQ) Plans with the following sale conditions will be excluded when

calculating the VWAP for the match period: Average Price Trade, Cash Trade (Same Day Clearing), Price Variation Trade, Odd Lot Trade, Market Center Official Close, Prior Reference Price, Market Center Official Open, Seller, Extended Hours Trade, Extended Hours Sold (Out of Sequence), Contingent Trade, Sold (Out of Sequence), Derivatively Priced, Qualified Contingent Trade, and Sold Last (Late Reporting) - in each case to the same extent such conditions (and other similar conditions) are excluded from updating the last sale price pursuant to the CTA/CQ Plans, as they may be amended from time to time.

During the crossing interval, if the GSCO algorithm cancels a matched order or a match is canceled by Sigma X2 because an order's limit price became unmarketable (National Best Offer is greater than the limit for a buy; National Best Bid is less than the limit for a sell), an execution with a prorated execution quantity would occur at the VWAP price based on match time to cancel time. During the crossing interval, if a match is canceled due to a regulatory trading halt or trading pause, system pause or system halt, no execution would occur and the orders will be cancelled. If an average price is not available (less than three trades in the market occur during the crossing interval), the mid-point NBBO price at the end of the crossing interval will be the execution price. Benchmark Cross executions are timestamped at the time of execution.

BENCHMARK CROSS DURING LOCKED/CROSSED MARKETS

Benchmark Cross orders may match during a locked or crossed market. The match will remain open for the duration of the crossing interval during the locked / crossed market. At the end of the crossing interval, if an average price is not available (less than three trades in the market occur during the crossing interval) and the market is locked, the locked NBBO price will be used as the execution price. If at the end of the crossing interval, an average price is not available and the market is crossed, no execution will occur and the orders will be canceled back.

BENCHMARK CROSS SHORT SALES AND REGULATION SHO

Sigma X2 will reject any Benchmark Cross short sale order in a security for which a short sale circuit breaker has been triggered pursuant to Regulation SHO Rule 201. In the event a match has already occurred at the time a security becomes subject to a Rule 201 circuit breaker, the crossing interval will expire and each side of the match will be canceled. The execution quantity will be for a prorated amount from the match time to the crossing interval expiration time. To determine the execution price, at the time the match is canceled, if the VWAP is greater than the NBB, the orders will receive an execution at the VWAP price from match time until crossing interval expiration. If the VWAP price is less than or equal to the NBB, the orders will receive an execution at one price increment above the NBB at the time of cancelation.

Part III, Item 13: <u>Segmentation; Notice</u>

a. Are orders and trading interest in the NMS Stock ATS segmented into categories, classifications, tiers, or levels (e.g., segmented by type of participant, order size, duration, source, or nature of trading activity)?
_X_ Yes ___ No

If yes, explain the segmentation procedures, including (i) a description for how orders and trading interest are segmented; (ii) identify and describe any categories, classification, tiers, or levels and the types of orders and trading interest that are included in each; (iii) provide a summary of the parameters for each segmented category and length of time each segmented category is in effect; (iv) any procedures for overriding a determination of segmented category; and (v) how segmentation can affect order interaction.

The Sigma X2 Counterparty Classification Framework consists of both Liquidity Taker Categories and Participant Categories, as described below. Note that the Counterparty Classification Framework does not apply to Benchmark Cross orders.

A. LIQUIDITY TAKER CATEGORIES

As described below, for Firm orders only, on either an order-by-order or Participant-level basis (by MPID or assigned GSID, as applicable), through a framework called Counterparty Classification, Sigma X2 offers Participants the ability to restrict the interaction of their liquidity-providing orders with specified categories of liquidity-taking orders. These categories are referred to

as Taker Categories "a," "b," or "c." Liquidity-taking order flow is mapped into these Taker Categories based upon the results of an objective post-trade mark-out analysis (the "Mark-out Analysis"). GSCO performs the Mark-out Analysis for all liquidity-taking orders on approximately a monthly basis (and for new order flow, on an ad-hoc basis). Depending upon whether a Participant is a Direct or Indirect Subscriber, and other relevant characteristics and facts described below, the Mark-out Analysis may be performed for the entirety of a Participant's liquidity-taking order flow or with respect to identified subsets (i.e., segments) of such flow.

MARK-OUT ANALYSIS:

GSCO maps all ~~Direct Subscriber~~ liquidity-taking order flow in Sigma X2 into three Taker Categories (i.e., "a," "b," or "c") based on the Mark-out Analysis. ~~To wit, this~~This analysis and mapping is performed for all liquidity-taking ~~orders in Sigma X2 - - i.e., all~~ Direct Subscriber ~~client orders (~~order flow—i.e., non-GSCO broker-dealer and non-broker-dealer Direct ~~Subscribers)~~ Subscriber orders and ~~all orders entering Sigma X2 under GSCO MPIDs as a~~ GSCO Direct Subscriber ~~(GSCO principal orders and, separately, all~~order flow (including Indirect ~~Subscribers' orders~~Subscriber order flow, which enters Sigma X2 via GSCO's Direct Subscriber FIX connection). The GSCO Mark-out Analysis is a standardized assessment, across all securities, of the short-term price movement in a security that is associated with liquidity-taking executions. Specifically, the Mark-out Analysis evaluates short-term price movement in a security (i.e., impact on the security's mid-quote) that is measured on a percentage basis within a particular time horizon surrounding an execution. GSCO uses the results of the Mark-out Analysis to determine whether the executions were: (i) least likely to be unfavorable for the liquidity provider (Taker Category "a"); (ii) more likely to be unfavorable for the liquidity provider (Taker Category "b"); or (iii) most likely to be unfavorable for the liquidity provider (Taker Category "c"). GSCO uniformly applies the Mark-out Analysis to all liquidity-taking order flow--whether at the MPID-level, GSID-level, for individual Taker Tokens, or on an aggregated Taker Token basis (as described below). See "Taker Category Assessment - - Use of MPIDS, GSIDs, and Taker Tokens" and "Taker Tokens and 'Individual' vs. 'Aggregate' Execution Thresholds."

On approximately a monthly-basis, GSCO refreshes the Mark-out Analysis for all Direct Subscribers and, accordingly, a Direct Subscriber's assigned Taker Category may change, without notice, following each such analysis. After GSCO performs a Mark-out Analysis, any new or changed Taker Category(ies) will become effective the following trading day. In addition, GSCO will perform an ad-hoc Mark-out Analysis to determine and assign a Taker Category for a new Direct Subscriber's order flow as well as in response to an existing Direct Subscriber's identification of new order flow. Please see "Taker Category Assessment: Use of MPIDs, GSIDs and Taker Tokens." Following GSCO's performance of such ad-hoc Mark-out Analysis and determination of any new or changed Taker Category assignments, the new or changed Taker Category(ies) will become effective within seven business days.

To maintain the integrity of the Liquidity Taker Categories, GSCO may periodically, as needed, reassess and modify the metrics used to determine the three Taker Categories. Additionally, if following a change to a Direct Subscriber's assigned Taker Category (e.g., a change from Taker Category "c" to Taker Category "b"), the Direct Subscriber's trading behavior materially changes in a manner that is no longer consistent with the recently assigned category, an intra-month change to the assigned Taker Category may be deemed necessary and the Taker Category will be updated without notice.

LIQUIDITY TAKER CATEGORIES AND ORDER INTERACTION:

As noted above, for Firm orders only, on either an order-by-order or Participant-level basis, Sigma X2 offers Participants the ability to restrict the interaction of their liquidity-providing orders with a specified category (or categories) of liquidity-taking orders (i.e., Taker Categories "a," "b," or "c") through the designation of a "Contra Category." A Participant's Contra Category selection ("a," "b," or "c") for a liquidity-providing order determines the Taker Category (or Taker Categories) with which the liquidity-providing order may interact.

The impact of selecting Contra Category "a," "b," or "c", is as follows. When a Participant sending a liquidity-providing order selects Contra Category "a," the Participant's order will only interact with Taker Category "a" orders. If a Participant sending a liquidity-providing order selects Contra Category "b," the Participant's order may potentially interact with Taker Category "a" or "b" orders. If a Participant sending a liquidity-providing order selects Contra Category "c," the Participant's order may potentially interact with Taker Category "a," "b," or "c" orders. Included as an attachment is a chart illustrating the Liquidity Taker Categories and the interaction of liquidity-providing and liquidity-taking orders within this framework.

If a Direct Subscriber sends liquidity-providing orders without selecting a Contra Category, such liquidity-providing orders will be defaulted to Contra Category "c."

For Indirect Subscribers' orders that access Sigma X2 through the Indirect Subscribers' use of GSCO's algorithms or SOR, the relevant GSCO algorithm or SOR logic will determine the Contra Category for liquidity-providing orders. For example, liquidity seeking algorithmic and/or SOR strategies may be willing to provide liquidity to all liquidity-taking Taker Categories, while more passive strategies may limit the set of liquidity-taking Taker Categories with which they interact.

Indirect Subscribers that access Sigma X2 through GSCO's DMA System may select a Contra Category to be applied to all of their liquidity providing orders. If they do not select a Contra Category, their liquidity providing orders will be defaulted to Contra Category "c."

TAKER CATEGORY ASSESSMENT--USE OF MPIDS, GSIDS, AND TAKER TOKENS:
For purposes of GSCO's performance of its Mark-out Analysis on liquidity-taking orders, unless a Direct Subscriber chooses to further segment its order flow through the use of Taker Tokens (as described below), GSCO will analyze broker-dealer Direct Subscriber orders by assigned MPID and non-broker-dealer Direct Subscriber orders by assigned GSID. When conducting its Mark-out Analysis, GSCO will not aggregate trading activity across multiple MPIDs or GSIDs utilized by a particular Direct Subscriber. Instead, GSCO will conduct its Mark-out Analysis for each individual MPID or GSID. Accordingly, broker-dealer Direct Subscribers sending liquidity-taking orders can segment their orders by utilizing multiple MPIDs, and non-broker-dealer Direct Subscribers sending liquidity-taking orders can segment their orders by utilizing multiple GSIDs.

In addition to using multiple MPIDs or GSIDs for purposes of GSCO's Mark-out Analysis and Taker Category assignment, a Direct Subscriber (whether broker-dealer or non-broker-dealer) sending liquidity-taking orders can further segment its order flow by using one or more Taker Tokens. A Taker Token is an indicator a Direct Subscriber can attach to an order. As described below, GSCO will conduct its Mark-out Analysis on orders with the same Taker Token attached to them (i.e., orders with the same Taker Token attached to them are analyzed as a group and, accordingly, will be mapped to the same Taker Category). A Direct Subscriber can utilize multiple Taker Tokens. Specifically, through the use of Taker Tokens, a Direct Subscriber can further segment its orders associated with a particular MPID or GSID in various manners such as to segment business units, particular underlying customers, or child orders associated with particular trading strategies.

For example, a broker-dealer Direct Subscriber could route orders to Sigma X2 under one MPID and have three Taker Tokens associated with that one MPID--one for its market making desk, one for its wealth management desk, and one for the remainder of its order flow.

GSCO, as a Direct Subscriber, can elect to segment its order flow by attaching a Taker Token to each order it routes to Sigma X2. Like other Direct Subscribers, GSCO can apply these Taker Tokens in various manners including to segment particular Indirect Subscribers or child orders associated with GSCO's or Indirect Subscribers' use of particular GSCO algorithmic or SOR routing strategies. With respect to child orders associated with GSCO algorithmic or SOR routing strategies, each liquidity-taking order will be associated with a Taker Token that is mapped to a Taker Category in accordance with the results of the Mark-out Analysis.

TAKER TOKENS AND "INDIVIDUAL" VS. "AGGREGATE" EXECUTION THRESHOLDS:
As described below, where a Direct Subscriber utilizes Taker Tokens to further segment its order flow, GSCO will conduct a Mark-out Analysis of the Direct Subscriber's Taker Token liquidity-taking executions (where it has sufficient data), on an individual Taker Token basis, or, on an aggregated basis, to determine the appropriate Taker Category for the Taker Token orders.

Any new Taker Token used by a Direct Subscriber after GSCO performs its most recent Mark-out Analysis will be defaulted to a Taker Category, as described below, until the individual Taker Token is associated with a sufficient number of executions for GSCO to perform a Mark-out Analysis for the individual Taker Token.

A Direct Subscriber must have sufficient transaction history associated with an individual Taker Token for GSCO to perform a

Mark-out Analysis of orders associated with that Taker Token. Specifically, to perform the Mark-out Analysis on a particular Taker Token, the number of executions effected by a Subscriber under that Taker Token must equal or exceed an amount determined by GSCO. When the number of executions for the specific Taker Token reach the threshold established by GSCO ("Individual Execution Threshold"), GSCO will conduct a Mark-out Analysis of that Taker Token and will assign orders associated with that Taker Token to the corresponding Taker Category (i.e., "a," "b," or "c"). GSCO will perform the Mark-out Analysis on the individual Taker Token as soon as the Individual Execution Threshold is satisfied - - i.e., there is no minimum or maximum number of days over which the Individual Execution Threshold must be satisfied.

If an individual Taker Token does not reach the Individual Execution Threshold and, therefore, GSCO cannot conduct a Mark-out Analysis of that Taker Token ("Insufficient Taker Token"), GSCO will calculate the Direct Subscriber's aggregate number of executions. If the aggregate executions, inclusive of all Taker Tokens associated with the corresponding MPID or GSID reach the threshold number of executions established by GSCO ("Aggregate Execution Threshold"), GSCO will perform the Mark-out Analysis for the aggregate executions and will default the Insufficient Taker Token orders to the appropriate Taker Category based on the aggregate analysis. GSCO will perform the Mark-out Analysis in this circumstance as long as the Aggregate Execution Threshold is satisfied -- there is no minimum or maximum number of days over which the Aggregate Execution Threshold must be satisfied.

Note, if and when the executions associated with an Insufficient Taker Token reach or exceed the Individual Execution Threshold, GSCO will then, at that time, analyze and map the individual Taker Token to a Taker Category. Finally, if the Direct Subscriber's trading activity for the individual Taker Token does not satisfy the Individual Execution Threshold and the Direct Subscriber does not satisfy the Aggregate Execution Threshold either, GSCO will assign Taker Category "b" to the Insufficient Taker Token orders as a default.

The Taker Token execution thresholds necessary for a Mark-out Analysis to be performed, whether on an individual Taker Token or on an aggregated basis, are uniformly applicable to all Direct Subscribers. Both the Individual Execution Threshold and the Aggregate Execution Threshold are subject to GSCO's discretion and may change from time-to-time.

The following are examples of the mark-out assessments discussed above. For the purposes of the examples, assume an Individual Execution Threshold of 200 executions and an Aggregate Execution Threshold of 600 executions.

Example A:
- Direct Subscriber XYZ utilizes one Taker Token associated with 550 executions. The Direct Subscriber's executions exceed the Individual Execution Threshold.
- Therefore, GSCO will conduct a Mark-out Analysis and map the Taker Token orders to the appropriate Taker Category.

Example B:
- Direct Subscriber XYZ utilizes one Taker Token associated with 30 executions. The Direct Subscriber's executions fall below the Individual Execution Threshold (i.e., the Taker Token is an Insufficient Taker Token).
- If the Direct Subscriber does not have any additional executions that can be aggregated, GSCO will default the Taker Token orders to Taker Category "b."

Example C:
- Direct Subscriber XYZ utilizes two Taker Tokens. Taker Token 1 is associated with 550 executions, which exceed the Individual Execution Threshold. GSCO will conduct a Mark-out Analysis and map Taker Token 1 orders to the appropriate Taker Category.

- The Direct Subscriber's Taker Token 2 is associated with 30 executions, which fall below the Individual Execution Threshold (i.e., Taker Token 2 is an Insufficient Taker Token). GSCO will aggregate Taker Token 2 executions with the Direct Subscriber's other Taker Token executions (in this example, with Taker Token 1 executions). Subscriber's total executions fall below the Aggregate Execution Threshold (550 + 30 = 580). Therefore, GSCO will default Taker Token 2 orders to Taker Category "b."

Example D:

- Direct Subscriber XYZ utilizes two Taker Tokens. Taker Token 1 is associated with 550 executions, which exceed the Individual Execution Threshold. GSCO will conduct a Mark-out Analysis and map Taker Token 1 to the appropriate Taker Category.
- The Direct Subscriber's Taker Token 2 is associated with 130 executions, which fall below the Individual Execution Threshold (i.e., Taker Token 2 is an Insufficient Taker Token). GSCO will aggregate Taker Token 2 executions with the Direct Subscriber's other Taker Token executions (in this example, with Taker Token 1 executions). Subscriber's total executions exceed the Aggregate Execution Threshold (550 + 130 = 680). GSCO will conduct a Mark-out Analysis and map Taker Token 2 orders to the appropriate Taker Category based upon the aggregate analysis.

B. PARTICIPANT CATEGORIES

On an order-by-order basis, ~~on behalf of Indirect Subscribers,~~ GSCO ~~algorithms and the GSCO SOR~~Order Sources (excluding directed orders to Sigma X2 via SOR), can ~~determine~~specify the Participant Categories orders may interact with in Sigma X2 (i.e., Participant Category "1" or Participant Categories "1" and "2") and may affix any such instruction to the relevant order(s). Participant Categories are only assigned to Direct Subscribers. If ~~the~~a GSCO ~~algorithms and the GSCO SOR do~~Order Source does not ~~determine~~specify the Participant Category/Categories with which an order may interact ~~with~~, then such order may interact with all Direct Subscribers regardless of assigned Participant Category. As noted, for directed orders to Sigma X2 via GSCO's SOR, the SOR does not determine the Participant Category/Categories with which such orders may interact in Sigma X2 and, therefore, such orders may interact with all Direct Subscribers.

GSCO assigns a Participant Category ("1" or "2") to each Direct Subscriber MPID (including GSCO MPIDs) or GSID based upon an analysis of one or more of the following factors: post-trade mark-outs, spread capture, order count and executed volume across all order flow for such MPID or GSID. The analysis includes liquidity-taking, liquidity-providing and both Firm and Conditional orders, and the mark-out time horizon is generally longer than that used for the Liquidity Taker Category analysis. GSCO will assign Participant Category 1 to Direct Subscriber MPIDs and GSIDs where an execution against such Subscribers' orders is least likely to be unfavorable to the contra order and, conversely, GSCO will assign Participant Category 2 to Direct Subscriber MPIDs and GSIDs where an execution against such Subscribers' orders is more likely to be unfavorable to the contra order.

If a GSCO ~~algorithm or the GSCO SOR determines~~Order Source specifies that an order may interact with Participant Category "1" orders, such instruction will be affixed to the order routed to Sigma X2, and Sigma X2 will only match such order with orders of Direct Subscriber MPIDs and GSIDs assigned "1." If a GSCO ~~algorithm or the GSCO SOR determines~~Order Source specifies that an order may interact with Participant Category "2" orders, such instruction will be affixed to the order routed to Sigma X2, and Sigma X2 may match such order with orders of Direct Subscriber MPIDs and GSIDs assigned "1" or "2." If a Participant Category is not specified on an order, the order is eligible to match against all Direct Subscribers.

On approximately a monthly basis, GSCO reevaluates its assignment of Participant Categories for all Direct Subscribers by MPID or GSID and, accordingly, a Direct Subscriber's assigned Participant Category for any given MPID or GSID may change, without notice, following each evaluation. New Direct Subscriber order flow is assigned to Participant Category "1" by default. Thereafter, on an ad hoc basis, once the new Direct Subscriber MPID or GSID has a sufficient number of executions, GSCO will evaluate the order flow as described above and assign a Participant Category ("1" or "2"). The number of executions required for GSCO to evaluate a Direct Subscriber MPID or GSID and assign a Participant Category is uniformly applied to all Direct Subscriber MPIDs and GSIDs, but the specific number of executions is subject to GSCO's discretion and may be changed from time-to-time. If and when deemed warranted, GSCO may reassess and modify the factors and/or associated metrics used to assign Participant Categories. Additionally, if following a change to a Direct Subscriber's assigned Participant Category (e.g., a change from Participant Category 2 to Participant Category 1), the Direct Subscriber's trading behavior materially changes in a manner that is no longer consistent with the recently assigned category, an intra-month change to the assigned Participant Category may be deemed necessary and the Participant Category assignment will be updated without notice.

~~It is possible for a GSCO algorithm and the GSCO SOR to~~
A GSCO Order Source may utilize both Liquidity Taker Categories and Participant Categories at the same time on a single order. For example, for a liquidity providing order, a GSCO ~~algorithms and the GSCO SOR~~Order Source can ~~determine~~specify both the

Liquidity Taker Category and Participant Category counterparty restrictions.

Part III, Item 14: 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)?
_X_ Yes ___ No

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, including Benchmark Cross 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 Liquidity Taker Categories of 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). ~~GSCO algorithms and the GSCO SOR, on behalf of Indirect Subscribers, may determine~~ GSCO Order Sources may specify the Participant Categories with which such orders 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.). Only GSCO algorithms, on behalf of Indirect Subscribers, can utilize Benchmark Cross orders. As a result, Benchmark Cross orders only interact with other Indirect Subscriber orders, and do not interact with Direct Subscriber orders.

b. If yes to Item 14(a), are the procedures for counter-party selection required to be identified in Item 14(a) the same for all Subscribers and the Broker-Dealer Operator?
___ Yes _X_ No

As outlined in Part III, Item 13.a, while all Participants may restrict the interaction of their liquidity-providing orders with specified categories of liquidity-taking orders through the Liquidity Taker Categories of the Counterparty Classification Framework, only GSCO ~~algorithms and the GSCO SOR, on behalf of Indirect Subscribers, may determine~~Order Sources may specify the Participant Categories with which such orders may interact.

Part III, Item 19: Fees

a. Identify and describe any fees or charges for use of the NMS Stock ATS services, including the type of fees (e.g., subscription, connectivity), the structure of the fees (e.g., fixed, volume-based, transaction-based), variables that impact the fees (e.g., types of securities traded, block orders, form of connectivity to the ATS), differentiation among types of Subscribers (e.g., broker-dealers, institutional investors, retail) and range of fees (e.g., high and low).

Subscribers may access Sigma X2 directly (i.e., Direct Subscribers) or indirectly (i.e., Indirect Subscribers, whose fees are discussed below in response to Item 19.b.) and can utilize both ATS and non-ATS GSCO offered products and services. Direct Subscribers are charged commissions for executions in Sigma X2 on a per share basis. These commissions are consistent across security and order types. GSCO has the discretion to charge Direct Subscribers commissions that range from ~~$.001~~$0.00 per share up to ~~$.~~$0.03 per share. In determining the commission rate, GSCO considers the Direct Subscriber's overall relationship with GSCO including the range of GSCO products and services the Direct Subscriber utilizes. Note, some GSCO clients are both Direct Subscribers and Indirect Subscribers (i.e., they access Sigma X2 both directly and indirectly) and may pay commissions specific to each type of access to Sigma X2.

There are no subscription or connectivity fees for accessing Sigma X2.

As described in FINRA Rule 6897 (Consolidated Audit Trail Funding Fees), Executing Brokers (as defined for purposes of Rule 6897) are assessed CAT regulatory fees. In accordance with such rule, GSCO is always identified as the "CAT Executing Broker" for the buyer in each transaction executed on Sigma X2 and, as a result, GSCO is assessed CAT regulatory fees in that capacity. GSCO is also identified as the CAT Executing Broker for the seller in each transaction executed on Sigma X2 and, as a result, is assessed CAT regulatory fees in that capacity except when a broker-dealer Direct Subscriber is on the sell side of an execution in Sigma X2. In such instances, the broker-dealer Direct Subscriber on the sell-side will be the CAT Executing Broker for the seller and will be assessed CAT regulatory fees directly by FINRA CAT, LLC for such transaction. For all other sellers (i.e., non-broker-dealer Direct Subscribers and all Indirect Subscribers), GSCO is identified as the CAT Executing Broker for the seller and is assessed the CAT regulatory fees. At this time, through the issuance of monthly invoices, GSCO passes CAT regulatory fees that are assessed against it as the CAT Executing Broker (1) to non-broker-dealer Direct Subscribers for all of their executions in Sigma X2 (i.e., buy, sell and sell short executions), and (2) to broker-dealer Direct Subscribers for their buy executions in Sigma X2.