

Part II: Activities of the Broker-Dealer Operator and its

Affiliates Item 1: 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?

☒ 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).

Virtu Americas LLC ("VAL" or the "Firm") operates two MatchIt ATS ("MatchIt" or the "ATS") crossing sessions, a Main Session (the "Main Session") and a Conditional Session (the "Conditional Session"), as well as several other business units, which are described below. Any of the Firm's other business units may enter or direct orders to either session. The Firm's business units each use one or more technology platforms that have MPIDs associated with the platform. A single business unit can enter or direct orders to the ATS through more than one technology platform and consequently under more than one MPID.

Virtu Electronic Trading ("VET"). VET provides algorithms that are used by clients and the Firm's business units. VET algorithms enter or direct the entry of orders to MatchIt as agent when those orders are entered by clients into the algorithms or as principal or riskless principal when one of the other business units enters orders into the algorithms using the MPIDs: DTTX, GFLO, VALR, VALX and VALX-ITGI.

Virtu Client Market Making ("VCMM"). VCMM handles held and not held orders transmitted by other broker-dealers and held orders transmitted by institutions. The majority of these orders are SEC Rule 605 eligible orders and are handled and executed on a fully automated basis. VCMM sales and trading personnel handle larger and less liquid orders manually and can use VET algorithms in connection with their market making activities. VCMM enters or directs the entry of orders to MatchIt as principal, riskless principal and agent to acquire inventory to fill orders or to acquire positions for its own account using the following MPIDs: NITE, GFLO, VALR and VALX.

Virtu Institutional Trading ("Institutional Trading"). Institutional Trading handles not held orders transmitted by institutional clients and facilitates block transactions in single stocks. Institutional Trading uses VET algorithms to enter or direct the entry of orders as principal or riskless principal in connection with its client facilitation activities using the following MPIDs: NITE, GFLO, VALX and VALX-ITGI.

Virtu Hi-Touch Portfolio Trading: Traders on this desk handle not held orders in baskets of stocks and ETFs. Traders can enter or direct the entry of orders through VAL Electronic Systems into the ATS as agent under the MPID ITGI.

Virtu ETF Trading ("ETF Trading"). ETF Trading makes markets on exchanges and facilitates block

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transactions in exchange traded products for broker-dealer and institutional clients. ETF Trading uses VET algorithms to enter or direct the entry of orders as principal or riskless principal in ETFs and singles stocks using the MPID VALX.

Virtu Principal Market Making (“VPMM”). VPMM is a market maker in NMS equity securities. VPMM enters or directs the entry of orders as principal to both MatchIt crossing sessions utilizing the MPID VIRT.

Item 2: Affiliates Trading Activities on the
ATS

- a. Are Affiliates of the Broker-Dealer Operator permitted to enter or direct the entry of orders and trading interest into the NMS Stock ATS?

☒ Yes ☐ No

If yes, name and describe each type of Affiliate that enters or directs the entry of orders and trading interest into the ATS (e.g., broker-dealer, NMS Stock ATS, investment company, hedge fund, market maker, principal trading firm), and, for each Affiliate, provide the applicable MPID and list the capacity of its orders and trading interest (e.g., principal, agency, riskless principal).

~~Virtu ITG LLC (“VIL”) is a U.S. VAL’s Canadian, EU and Asia Pacific Affiliates are broker-dealerdealers that provides execution offer products and services similar to clients and operates the POSIT ATS (“POSIT”). VILVET and have hi-touch desks, all of which can enter or direct the entry of orders as agent utilizing the MPID ITGL to either to MatchIt crossing session. VIL does not trade for its own account in the ordinary course but may enter or direct the entry of orders as principal in connection with errors or accommodations.—~~

~~through VAL and VIL enter or direct the entry of orders for other Affiliates, including Virtu AlterNet LLC, a U.S. broker-dealer that provides net trading and step out services to other broker-dealers utilizing the MPID ALTX, and on behalf of non U.S. Affiliates in Canada, the EU region, and the Asia Pacific region. The Firm’s non U.S. Affiliates trade for their own accounts and provide services to clients globally. VAL and VIL enterenters or directdirects orders to the ATS for these Affiliates as agent or riskless principal using atthe VAL MPID in the case of VAL entering the order or a VIL MPID in the case of VIL entering the order. MPIDs GFLO, VALR, VALX or ITGL.~~

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Item 4: Arrangements with Trading
Centers

- a. Are there any formal or informal arrangements (e.g., mutual, reciprocal, or preferential access arrangements) between the Broker-Dealer Operator and a Trading Center to access the NMS Stock ATS services (e.g., arrangements to effect transactions or to submit, disseminate, or display orders and trading interest in the ATS)?

☒ Yes ☐ No

If yes, identify the Trading Center and the ATS services and provide a summary of

the terms and conditions of the arrangement.

VAL and the following Trading Centers have each entered into electronic access arrangements with one another which permit each to effect transactions on their respective trading centers: BAML Instinct X ATS, Barclays LX ATS, CBOE Bats Y, CBOE Bats X, CBOE Direct Edge A, CBOE Direct Edge X, Citigroup Global Markets CitiBLOC ATS, Citadel Securities - Citadel Connect, Coda Markets ATS, Credit Suisse Crossfinder ATS, Deutsche Bank SuperX ATS, Fidelity CrossStream ATS, Goldman Sachs SigmaX2 ATS, Instinet BlockCross ATS, Instinet CBX ATS, Jane Street Capital - JX, JP Morgan JPM-X ATS, Liquidnet H2O ATS, Morgan Stanley MS Pool ATS, UBS ATS, Virtu ~~ITG~~-POSIT ATS, and Virtu ~~Financial~~-BD-VEQ.

These agreements do not provide for preferential access or require either party to route any orders.

- b. If yes to Item 4(a), are there any formal or informal arrangements between an Affiliate of the Broker-Dealer Operator and a Trading Center to access the NMS Stock ATS services?

☐ Yes ☒ No

If yes, identify the Trading Center and ATS services and provide a summary of the terms and conditions of the arrangement.

Item 5: Other Products and Services

- c. Does any Affiliate of the Broker-Dealer Operator offer Subscribers, the Broker-Dealer Operator, or both, any products or services for the purpose of effecting transactions or submitting, disseminating, or displaying orders or trading interest in the NMS Stock ATS?

☒ 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.

~~VIL is an Affiliate of VAL which makes algorithms available to its internal desks and offers algorithms to its clients. VAL and VIL The Firm's Affiliates operate business units that offer products and services, including trading desks and algorithms, that result in Canada, the EU region, and the Asia Pacific region transmit orders to these algorithms. All of these algorithms provide of Indirect Subscribers with indirect access to being entered on MatchIt. See, Part II, Item 2 for a description of VIL and other these Affiliates. VAL, VIL and their Affiliates require clients to enter into electronic access agreements to use algorithms and be on-boarded by the legal entity providing the services on similar terms and conditions as those described in Part II, Item 5(b).~~

Item 6: Activities of Service Providers

- a. Does any employee of the Broker-Dealer Operator or its Affiliate that services both

the operations of the NMS Stock ATS and any other business unit or any Affiliate of the Broker-Dealer Operator (“shared employee”) have access to confidential trading information on the NMS Stock ATS?

☒ ☐ Yes ☐ ☐ No

If yes, identify the business unit, Affiliate, or both that the shared employee services, and provide a summary of the role and responsibilities of the shared employee at the ATS and the business unit, Affiliate, or both that the shared employee services.

VAL does not have any personnel whose sole responsibility is for MatchIt. The Firm considers information relating to Subscriber’s live orders, trading interests and recent executions in MatchIt that the Firm reasonably believes may suggest a Subscriber continues at that moment in time to have the same or additional live orders and trading interests in MatchIt to be ATS confidential information (“Confidential Information”). As is more fully discussed in Part III, Item 7(a), the Firm does not consider all post trade data to be Confidential Information, particularly when the information is anonymized, aggregated or both.

Below is a summary of the shared personnel that provide services to both MatchIt, the Firm, and its Affiliates and have access to Confidential Information.

- Compliance and Legal: Compliance and Legal personnel support all of the Firm’s business units and those of the Firm’s Affiliates and perform a variety of compliance and legal activities related to their roles. They have access to Subscriber historical order and execution information and as necessary they can be provided with access to intra-day information.
- Finance and Management Reporting Group: Finance and Management Reporting personnel support all of the Firm’s business units and those of the Firm’s Affiliates. These personnel are involved in accounting, billing, analyzing revenues, and providing management reporting information. They have access to Subscribers’ historical post-trade execution information and data.
- Operations: Operations personnel support the Firm’s middle and back office processes for clearance and settlement and related activities and have access to Subscribers’ real time intra-day, post-trade, and historical execution information for clearing, settlement, and regulatory reporting purposes.
- Core Operations: Core Operations are technical personnel who have access to the Firm’s and its Affiliates’ trading infrastructure, which includes MatchIt, to monitor the functionality, health, and wellness of the Firm’s trading infrastructure and take action as necessary to maintain the systems and manage issues. They have access to Subscribers’ real-time and historical order and execution information. This group supports all trading infrastructure and applications for the Firm.
- Software Developers: Software Developers have access to the Firm’s and its Affiliates’ trading infrastructure, which includes MatchIt, to maintain and enhance the software for the Firm’s trading applications. They have access to Subscribers’ real-time and historical order and execution information. This group supports all trading infrastructure and applications for the Firm.

- **Product Management:** Product Management are personnel who manage the day-to-day business activities for products such as MatchIt, the algorithms the Firm provides to clients, and other trading-related applications the Firm and its Affiliates provide to clients. These personnel monitor the trading applications, enhance their product features, and create new features. Product Management compile and analyze statistics and metrics related to the ATS and other electronic products and services. Product Management works with Software Developers, and in some instances are also Software Developers themselves. The Product Manager responsible for supervising MatchIt is also the Product Manager responsible for supervising ~~VIL's~~ VAL's other ATS, POSIT, and also provides support to both VAL's VET business and ~~VIL's~~ execution services applications. Product Management have access to Subscribers' real-time and historical order and execution information.
- **Relationship Management:** Relationship Management personnel are responsible for managing the Firm's relationship with its clients, including clients who are Direct Subscribers of the ATS, and for cross-selling the Firm's other products and services. They have access to historical order and execution information.
- **Sales and/or Trading Personnel:** To the extent Sales or Trading personnel are responsible for handling an order, a portion of which is directed to MatchIt as a child order, such personnel would have real time access to such child order and any of its executions in MatchIt analogous to the access they would have to information about orders and executions that were directed to external market centers in order to monitor executions and provide order-related services.

Item 7: Protection of Confidential Trading Information

- a. Describe the written safeguards and written procedures to protect the confidential trading information of Subscribers to the NMS Stock ATS, including:
 - i. written standards controlling employees of the ATS that trade for employees' accounts; and
 - ii. written oversight procedures to ensure that the safeguards and procedures described above are implemented and followed.

GENERAL BACKGROUND AND SCOPE OF CONFIDENTIAL INFORMATION. The Firm operates MatchIt on a matching engine that runs on a standalone server in the NY5 Data Center. See Part I, Item 7; and Part III, Item 6(a). The MatchIt matching engine communicates with shared systems to book trades, to report executed trades to the tape, to facilitate clearance and settlement, for financial reporting and billing, and to facilitate other post-trade processes. See Part II, Item 6 for information on personnel that have access to Confidential Information.

AGGREGATED ANONYMOUS DATA. Data which has been aggregated and which does not identify any Subscribers is not Confidential Information ("Aggregated Anonymous Data"). The Firm publishes firm-wide aggregated anonymous execution data to market wide trade advertisement systems after the transaction has been reported to the consolidated tape. The data does not include any client identities but does include symbol level executed volumes. ~~The Firm includes MatchIt Aggregated Anonymous Data in these reports at the end of day. The MatchIt Aggregated Anonymous data is combined with the rest of the Firm's data when it is disseminated to these market wide systems and is not separately identified or attributed to MatchIt.~~ While the Firm does not consider this data to be Confidential Information, it ~~nonetheless permits Subscribers~~

~~to opt out of having their data included does not include MatchIT Aggregated Anonymous data~~ in these reports.

The Firm posts monthly statistics on its website and disseminates this data to Subscribers (“the Monthly MatchIt Statistics”). The Monthly MatchIt Statistics are available at <https://www.virtu.com/about/transparency> and provide aggregate and anonymous information about MatchIt, including total volume; volume by sector; volume by market cap; fill size distribution; and distribution of executions at the bid, mid and offer. The Firm produces market commentary from time-to-time that discusses general market trends. The statistical data described in this paragraph can be used to produce market commentary. The Firm considers this data to be Aggregated Anonymous Data and not Confidential Information. The Firm does not permit Subscribers to opt out of having their data included in these reports.

SALES DATA. Sales Data is aggregated information about the products and services the Firm’s clients use and includes the client’s name, the product or service they use, aggregate executed volume, and revenues (“Sales Data”). Sales Data includes aggregated ATS data as described in the preceding sentence. The Firm provides Sales Data to management personnel, Sales or Trading personnel and Relationship Management personnel who are involved in handling relationships with the Firm’s clients. Sales Data is provided for the purpose of allowing these personnel to keep abreast of the client’s business activities to manage the client relationship and to cross sell the Firm’s products and services to the client. The Firm does not consider Sales Data to be Confidential Information when distributed internally for the above described purposes. The Firm makes this information available in end of day reports and in sales systems (i.e., systems that support activities of Sales or Trading personnel and Relationship Management personnel for the purposes described above) on T+1. The Firm prohibits personnel from disclosing Sales Data to third parties. The Firm does not permit Subscribers to opt out of having this data made available to personnel involved in handling client relationships, as defined in Part II, Item 6(a).

PERSONNEL WITH ACCESS TO CONFIDENTIAL INFORMATION. The Firm does not have any personnel whose sole responsibility is for the operations of MatchIt. The shared personnel discussed in response to Part II, Item 6(a), have access to Confidential Information.

SAFEGUARDS AND OVERSEEING CONFIDENTIAL INFORMATION. The Firm maintains written policies and procedures regarding use and protection of Confidential Information. Firm personnel are subject to its parent, Virtu Financial Inc.’s Code of Conduct and Employee Manual. Firm personnel are also subject to the Firm’s Information Security Policy, Compliance Manual, and Written Supervisory Procedures.

These policies prohibit the personnel listed in Part II, Item 6(a), from sharing Confidential Information with other personnel who are not in one of these permitted categories or with any other person. The exception is that Compliance and Legal personnel may provide information to regulators in response to regulatory requests or to third parties pursuant to subpoena. Personnel who violate the Firm’s policies concerning Confidential Information are subject to discipline, including termination of their employment. The Firm performs email reviews and employs data loss software as a means of safeguarding Confidential Information.

The Firm procedures require that personnel make requests for access to its systems through the Firm’s access ticketing system and to receive approval from a supervisor prior to being granted access to any systems. The Firm’s supervisory personnel grant access to systems on the premise that it is necessary to perform their duties and to carry out the purpose for which the information is provided to them. The supervisor responsible for MatchIt approves requests for access to the MatchIt matching engine. The Firm only permits approved personnel in the categories described

in Part II, Item 6(a), to have access to Confidential Information and only permits these personnel to access the systems and the Confidential Information contained therein using approved means of access and credentials. Supervisors do not grant access to Confidential Information. The Firm maintains a process that sends notifications to designated personnel to disable systems access for personnel who are no longer employed by the Firm. Supervisors are responsible for instructing the technology personnel to disable access when employees change roles. The Firm provides reports to the supervisors that show personnel with access to the MatchIt matching engine on a monthly basis. Supervisors review these reports to ensure that these personnel still require access to carry out responsibilities related to the ATS.

PERSONAL TRADING RESTRICTIONS. The Firm maintains employee trading policies that require personnel to disclose their own personal accounts and the accounts of close family members, that prohibit personnel from trading based on any client Confidential Information, that require personnel to pre-clear transactions and attest at the time of trade entry that they are not trading on Confidential Information, and that prescribe holding periods for securities purchases. The Firm conducts reviews of employee trading to determine whether trades were pre-cleared and whether holding periods were observed.