March 16, 2016

Via Electronic Submission

Mr. Christopher Kirkpatrick
Secretary of the Commission
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street NW
Washington, DC 20581

Re: **Regulation Automated Trading (RIN 3038–AD52);**
Notice of proposed rulemaking, 80 FR 78824 (December 17, 2015).

Dear Mr. Kirkpatrick:

Bloomberg Tradebook LLC ("Tradebook") appreciates the opportunity to provide the Commodity Futures Trading Commission ("Commission") with comments on the notice of proposed rulemaking regarding the regulation of automated trading on U.S. designated contract markets (the "Proposal"). Tradebook is registered with the Commission as an introducing broker. In summary, our comments are as follows:

1. **Source Code Repository.** The proposed rule requiring maintaining of a source code repository and providing the Commission staff with access to it upon request is unnecessary and unjustified and would significantly weaken the protections currently afforded to intellectual property that the Commission may obtain during an investigation. The Commission's current authorities and processes to obtain information are adequate to address the interests of the Commission in obtaining information while protecting the intellectual property of persons that developed the source code. (Question 131).

2. **Definition of AT Person.** A futures commission merchant ("FCM") that offers an algorithmic trading ("AT") system for use by its customers is best positioned to fulfill the responsibilities of an AT Person (as defined in the Proposal) and should be solely responsible for complying with the requirements set forth in the proposed Regulations 1.80 (pre-trade risk controls), 1.81 (development, monitoring, and compliance of AT systems), and 1.83 (reports and recordkeeping). These requirements should apply to the FCM regardless of whether the FCM offers its own AT system, or an AT system developed by an independent software vendor ("ISV"). (Questions 13, 17).

3. **Direct Electronic Access.** Electronic access to a designated contract market ("DCM") via an AT system provided by an FCM where such AT system allows the FCM to

establish pre-trade risk controls should not be considered as direct electronic access ("DEA"). DEA should not include the cases when (1) the "separate person" (as this term is used in the proposed definition of "direct electronic access") through which an AT order is routed is an executing FCM that is a member of a DCM, rather than an FCM that is a member of a derivatives clearing organization ("DCO") to which the DCM submits transactions for clearing (*i.e.*, clearing FCM), or (2) an AT order is routed directly to a DCM via an AT system provided by an executing or clearing FCM (Question 18).

A more detailed analysis of the Proposal and explanation of our comments follows.

A. Source Code Repository (Question 131)

The proposed Regulation 1.81(a)(1)(vi) requires an AT Person to:

> [M]aintain a source code repository to manage source code access, persistence, copies of all code used in the production environment, and changes to such code. Such source code repository must include an audit trail of material changes to source code that would allow the AT Person to determine, for each such material change: who made it; when they made it; and the coding purpose of the change. Each AT Person shall keep such source code repository, and make it available for inspection, in accordance with § 1.31. [1]

The proposed Regulation 1.81(a)(1)(vi) would require each AT Person to make its source code available to any representative of the Commission or the U.S. Department of Justice upon request.[2] Tradebook respectfully submits that this requirement dramatically lowers the bar for the Federal government to obtain information without providing any justification as to why it is necessary.

The source code underlying an AT system is the intellectual property of developers of that code and is highly confidential, proprietary information. The source code for an AT system represents, in software code format, the specific trading strategies that the AT system is designed and programmed to execute. Developing and designing of an effective algorithmic trading strategy, writing the source code to efficiently execute that strategy, and testing that code requires a significant investment of human intellectual resources and capital. Maintaining the confidentiality of that source code for developers of AT systems is just as important to the developers as maintaining the confidentiality of other types of intellectual property that is protected under the law, such as manufacturing processes, mechanical systems, or even formulas

[1] The Proposal provides no explanation of what the Commission considers a "material change" or discussion of the costs and benefits of this proposed requirement (Question 131 asks how much it will cost for a market participant to comply with this requirement). We submit that a clarification is necessary.
[2] As required by Commission's Regulation 1.31.

for soft drinks. A breach or loss of confidentiality of the source code of an AT system would significantly impair—if not destroy—the value of that intellectual property.

The unauthorized disclosure of source code, whether through cyberattack, theft, or negligence, could cause harm to market participants and markets in a variety of ways. Unauthorized disclosure could enable the copying or replication of trading strategies embedded within the code. Alternatively, the knowledge of the strategies embodied in the source code could facilitate the development and use of strategies designed to trade against the strategies embedded in the source code. The resulting prices would reflect the interactions of trading strategies utilized to exploit knowledge about other trading strategies rather than the views of market participants as to fundamental values. Protecting the confidentiality of the source code therefore is critical to protect not only the intellectual property of the developer of the code but also to preserve the price discovery function and integrity of the market in which the code is used.

Any time confidential data is transferred to a third party for storage and access, there is a concern that the proliferation of storage sites and access to the data will make the data more susceptible to inadvertent disclosure or malicious activity, such as cyberattacks or theft. Unfortunately, there are many recent examples of breaches of confidentiality of data, in both the governmental and private sectors, some of which involve large amounts of data and large numbers of affected people that demonstrate the validity of these concerns.

The Commission has adequate authority under existing regulations and procedures to obtain information it needs, while affording an appropriate level of protection and confidentiality to that information. The Commodity Exchange Act ("CEA") and the Commission's regulations provide the Commission and its staff with broad authority and ability to obtain information during an investigation.[3] At the same time, the Commission's regulations protect the confidentiality of all information during an investigation.[4] The Commission recognizes that disclosure of any information provided even during an investigation could cause harm to the

[3] The Commission has delegated to its staff the authority to conduct investigations. Commission's Regulation 11.2 delegates authority to the Director of the Division of Enforcement to "conduct such investigations as he deems appropriate to determine whether any persons have violated, are violating, or about to violate the [CEA] or the rules, regulations or orders adopted by the Commission . . ." Commission Division Directors and members of their staff "acting with the scope of their responsibilities" also are authorized to conduct investigations "[i]n particular matters." 17 C.F.R. §11.2.

[4] Regulation 11.3 provides: "All information and documents obtained during the course of an investigation, whether or not obtained pursuant to subpoena, and all investigative proceedings shall be treated as non-public by the Commission and its staff [except to the extent that the Commission directs disclosure or disclosure is otherwise authorized]." 17 C.F.R. §11.3.

person providing that information, and the Commission therefore considers it necessary to protect the confidentiality of that information.[5]

The Proposal provides no explanation why the Commission needs additional authority or procedures to obtain this type of confidential, proprietary information. Indeed, the Commission has not set forth any rationale to justify enabling any member of the Commission staff to obtain and examine proprietary source code simply "upon request"—i.e., for whatever reason, thus dramatically lowering the bar for the Federal government to obtain the information.

In Tradebook's view, to prevent a breach or loss of confidentiality or inadvertent disclosure of the source code, the Commission should require persons to provide their source code to the Commission only when the Commission has a demonstrated need for the information, such as during an investigation, and ensure protection for such source code as appropriate for a specific request.

For the foregoing reasons, allowing access to the source code simply upon request as would be provided in the proposed Regulation 1.81(a)(1)(vi) is unnecessary and does not provide the appropriate balance between the interests of the Commission in obtaining information and the protection of the intellectual property of developers of the code.

B. Definition of AT Person (Questions 13, 17)

Tradebook believes that where an FCM provides an AT system for use by its customers, the definition of "AT Person" should include only the FCM and not those customers, regardless of whether such customers are registered with the Commission.[6] We respectfully submit that for the reasons stated below, FCMs are best suited to fulfill the responsibilities of an AT Person.

The Proposal imposes numerous obligations on an AT Person. An AT Person would be required to implement the pre-trade risk controls under the proposed Regulation 1.80. AT Persons also would be required, under the proposed Regulation 1.81, to develop, test, and monitor the AT systems, as well as designate and train the staff responsible for its algorithmic

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[5] The Commission also believes that ensuring the confidentiality of information will facilitate its ability to obtain the information. *See* 41 Fed. Reg. 29798 (July 19, 1976) ("To protect the interests of persons whose activities are being investigated from possible adverse implications prior to full development of the facts, and to protect the investigatory process against possible obstruction, confidentiality provisions have been established in §11.3. All investigative proceedings and all information and records obtained during an investigation will be non-public, unless otherwise provided.").

[6] The proposed Regulation 1.3 (xxxx) defines "AT Person" as "any person registered or required to be registered as a—(1) Futures commission merchant, floor broker, swap dealer, major swap participant, commodity pool operator, commodity trading advisor, or introducing broker that engages in Algorithmic Trading on or subject to the rules of a designated contract market; or (2) Floor trader as defined in paragraph (x)(3) of this section." Tradebook suggests to amend this definition to exclude registered customers of an FCM that provides an AT system.

trading. An AT Person also would be responsible for implementing policies and procedures reasonably designed to ensure that its AT systems comply with the CEA and the Commission's rules. Under the proposed Regulation 1.83, each AT Person would be required to annually submit a report to each DCM on which it engaged in algorithmic trading. The annual report would need to include a description of the AT Person's written policies and procedures that provide for the development and testing of its AT systems, and the policies and procedures that provide for the monitoring of those systems for compliance with the CEA and the Commission's regulations.

There are both legal and practical barriers to imposing the responsibility for compliance with the proposed Regulations 1.80, 1.81 and 1.83 upon FCM's customers using AT systems that are provided by the FCM. The FCM provides to its customers an AT system that already has been designed and tested for general use by the FCM's customers. Each customer has a license to use the AT system, but not the authority to alter the design of the system or modify the source code. Accordingly, customers using an AT system provided by an FCM will not have the authority or ability to undertake the measures necessary to comply with the proposed regulatory requirements for AT Persons. The FCM that provides the AT system to its customers is much better suited than its individual customers to monitor the performance of the AT system across those customers, and to identify and correct any systemic issues. Under these circumstances, it is the FCM rather than the customers who would have the authority and ability to implement any regulatory requirements concerning the design, testing, monitoring of such AT system.

We respectfully submit that the rule would be more effective if it were to align the responsibilities for design and maintenance of an AT system with the FCM that provides that system rather than the customers that use it. Moreover, it would be far more efficient from a regulatory perspective for the Commission, as well as the DCMs and the National Futures Association (the "NFA"), to be able to focus their resources on the FCMs that can be considered as the "gatekeepers" for the AT systems rather than the individual users of the system. By consolidating responsibility at the FCM level, the Commission, the NFA and DCMs can concentrate their oversight resources as well.

In addition, placing responsibilities of an AT Person on customers of an FCM may cause some customers to discontinue the use of AT systems. Smaller market participants might not have recourses necessary to comply with the AT Person obligations. This would provide a disproportionate competitive advantage to large, sophisticated trading firms that use their own AT systems and have the ability to comply with the proposed responsibilities of AT Persons. If FCMs were not permitted to undertake AT Person responsibilities with respect to AT systems they provide to their customers, the use and innovation of AT systems could be stifled because the development of AT systems requires resources and sophistication that can be found primarily at FCMs and specialized ISVs that develop AT systems for FCMs. This result would be

inconsistent with one of the purposes of the CEA – "to promote responsible innovation and fair competition among boards of trade . . . and market participants."

In sum, Tradebook believes that in any of the circumstances where the FCM provides an AT system to customers, it is the FCM that provides the AT system to the customers, rather than each customer that uses the AT system or the ISV that develops it, that should be the AT Person that is responsible for complying with the control, testing, monitoring and compliance requirements applicable to the system.

The same considerations as to which entity is best suited to be the AT Person apply regardless of whether the FCM is supplying its own AT system to its customers, or whether the FCM is supplying to its customers an AT system developed and maintained by an ISV. Further, it should not matter whether the FCM providing the AT system is an executing FCM or a clearing FCM. Similarly, it should not matter whether customer's AT order is routed through the FCM system or is routed directly to the DCM by an ISV that develops and maintains the AT system. In each instance, the FCM providing an AT system to its customers should be considered to be an AT Person and, as such, responsible for developing, testing, monitoring, and compliance of the AT system.

C. Direct Electronic Access (Question 18)

Electronic access to a DCM via an AT system provided by an FCM where such AT system allows the FCM to establish pre-trade risk controls should not be considered as DEA. DEA should not include the cases when (1) the "separate person" through which an AT order is routed is an executing FCM that is a member of a DCM rather than an FCM that is a member of a DCO to which the DCM submits transactions for clearing, or (2) an AT order is routed directly to a DCM via an AT system provided by an executing or clearing FCM.

The Proposal introduces the definition of "direct electronic access" in the proposed Regulation 1.3(yyyy):

> This term means an arrangement where a person electronically transmits an order to a designated contract market, without the order first being routed through a separate person who is a member of a derivatives clearing organization to which the designated contract market submits transactions for clearing.

Under the Proposal, a person sending AT orders via DEA would be required to register as a floor trader (unless otherwise already registered in some other capacity) and comply with regulations applicable to an AT Person.

We are urging the Commission to modify the definition of "direct electronic access" as set forth below taking into consideration of our comments to the definition of AT Person.

1. Routing to a DCM via an AT System provided by an executing FCM

As proposed by the Commission, the definition of "direct electronic access" would exclude only those orders that are routed through a clearing FCM that is a member of the DCO to which the DCM submits transactions for clearing. It would not exclude from the definition of "direct electronic access" trades that are routed to the DCM through an executing FCM and then "given up" to the clearing FCM. By excluding orders routed through clearing FCMs, but not excluding orders routed through an executing FCM, the Proposal would create a strong incentive for persons to conduct their trading directly through clearing FCMs, and avoid using executing FCMs that have entered into give-up agreements with clearing FCMs. Under the Proposal, in the former scenario the person submitting an AT order would not be considered to have DEA, and therefore would not be required to register as a floor trader and be an AT Person, whereas in the latter the person submitting an AT order would be considered to have DEA, and therefore would be subject to the registration as a floor trader and would become an AT Person.

We believe that the Commission's regulations regarding AT should not create disincentives to the use of executing FCMs to access the market. To the contrary, the AT regulations should maintain the customers' ability to choose whichever means to access the market is most effective for them, including whether to use an executing FCM rather than a clearing FCM. The revised definition of DEA that we propose would treat all types of FCMs equally in terms of regulatory obligations attendant to providing AT systems for customer use.

Tradebook respectfully submits that modifying the definition of "direct electronic access" to exclude access to a DCM through the systems of an either an executing or a clearing FCM will not create additional risk to DCMs or market participants. An executing FCM, as an AT Person, will have to comply with the proposed Regulations 1.80, 1.81 and 1.83.

2. Routing directly to a DCM via an AT system provided by an executing or clearing FCM

Consistent with our comments above that the definition of AT Person include only an FCM that offers an AT system to its customers, Tradebook believes that those customers should not be considered to be AT Persons even if they route AT orders directly to a DCM. The definition of a DEA is predicated on a fact that a clearing FCM does not have control over the AT System used by its customers and thus controls at user and DCM levels are necessary.[7] This

[7] *See* the Proposal, 80 FR 78824, footnote 34, at 78830.

is not the case for an AT system provided by an FCM where the FCM has control over the AT system and has ability to establish pre-trade risk controls.[8]

Further, if the FCM that provides an AT system to its customers is responsible for meeting the regulatory obligations of an AT Person, including maintenance of pre-trading risk controls and other requirements of the proposed Regulation 1.80, it should not make a difference from a regulatory perspective whether the AT system provided by the FCM is developed and maintained by an ISV, or whether the AT orders are routed through the FCM system or directly to the DCM. Even where the AT system provided by the FCM to its customers is developed and maintained by an ISV and orders are routed directly to the DCM, the FCM should remain as the AT Person and customers should not be viewed as having DEA.

Tradebook respectfully submits that the definition of "direct electronic access" be modified to also exclude those situations in which a customer accesses a DCM either through an AT system maintained and provided by the FCM, or through an AT system provided by the FCM but maintained by an ISV that sends the customer orders to the DCM without first routing the order through the FCM system.

Tradebook respectfully submits that making such modification will not increase the risk of market disruption or any other risks. In our opinion, placing AT Person obligations on the FCM would decrease such risks because the FCM is better suited to manage and maintain an AT system.[9]

To accomplish these two DEA proposals and in conjunction with our recommendations regarding the definition of "AT Person," Tradebook recommends that the definition of "direct electronic access" be modified as follows:

> (yyyy). Direct Electronic Access. This term means an arrangement where a person electronically transmits an order to a designated contract market, without the order first being routed through
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> (i) a separate person who is a member of a derivatives clearing organization to which the designated contract market submits transactions for clearing, or
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> (ii) a separate AT Person or through an algorithmic trading system provided by a separate AT Person, where the separate AT Person is a

[8] Tradebook also notes that it is possible for the same AT system to allow both the user and its FCM to set different layers of pre-trade risk controls thus complying with Commission's multi-layered approach.

[9] Tradebook agrees with the Commission that when the same person uses, develops and maintains an AT system and where a member of the DCM that executes an AT order cannot control the AT system, such person should be an AT Person and, if applicable, subject to floor trader registration.

registered futures commission merchant and a member of a designated contract market.

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We appreciate the opportunity to provide our comments on the Proposal, and would be pleased to discuss any questions that the Commission may have with respect to this letter.

Very Truly Yours,

Glenn Lesko

CEO and President of
Bloomberg Tradebook LLC

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