MODERN MARKETS INITIATIVE

January 15, 2016

VIA ELECTRONIC SUBMISSION

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

Re: Proposed Rulemaking on Regulation Automated Trading (Regulation AT)

Dear Mr. Kirkpatrick:

I. INTRODUCTION

On behalf of the Modern Markets Initiative ("MMI"), I respectfully submit this letter in response to the request for public comment set forth in the Commodity Futures Trading Commission's (the "CFTC" or "Commission" or "Agency") Notice of Proposed Rulemaking on Regulation Automated Trading (the "Regulation AT" or "Proposal").[1] MMI is an industry association dedicated to investor education and fact-based advocacy regarding high frequency trading ("HFT"). MMI provides comments regarding regulatory and legislative developments from the perspective of globally-respected HFT firms working daily to serve investors and end users with reliable market liquidity across asset classes creating optimum price discovery.

MMI appreciates the Commission's work, generally, but takes special notice of the comprehensive efforts related to Regulation AT. We believe updating Commission rules in response to the evolution from pit trading to electronic trading is not only needed, but can ensure that the Agency is at the forefront of establishing a suitable regulatory regime reflecting contemporary market circumstances.

In this regard, MMI supports the vast majority of definitions and designations proposed by the Commission and its specific efforts to ensure all market participants: 1—Seek registration with the Commission; 2—Adhere to written policies and procedures for the development and testing of automated trading systems ("ATSs"); 3—Implement pre-trade risk controls including kill switches, and; 4—Provide needed transparency around market maker programs and trading incentives. The cumulative impact of these proposals should propel a virtuous cycle of increased confidence in the futures markets begetting greater liquidity, producing improved pricing, which in turn, will further increased market confidence.

[1] *See* Notice of Proposed Rulemaking on *Regulation on Automated Trading*, 17 CFR Parts 1, 38, 40, and 170 (Nov. 24, 2015), available at http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/federalregister112415.pdf

That support stated, which covers the vast majority of the Proposal, we have grave concerns with the proposed criteria, under section § 1.81(a), that AT Persons must produce for inspection "*a source code repository to manage source code access, persistence, copies of all code used in the production environment, and changes to such code."* We believe this will do little to further propel the aforementioned virtuous cycle, while placing the trade secrets and intellectual property of algorithmic trading firms at precarious, unwarranted and unnecessary risk. A more detailed explanation of our concerns is contained later in this letter.

II. COMMENTS

A. New defined terms -- § 1.3(x)

i. "Algorithmic Trading"
ii. "Algorithmic Trading Compliance Issue"
iv. "Algorithmic Trading Event"
v. "AT Order Message"
vi. "AT Person"
vii. "Direct Electronic Access"

In summary, we have no specific comments related to these definitions except for the term "iii. Algorithmic Trading Disruption." As presented, we believe the definition is overly broad and thus groups disruptions of various impact.

In particular, the first part of the definition, which covers "the algorithmic trading of such AT person," should not be in this definition, or any other, as it does not affect other markets participants. The second and third parts of the definition, "the operation of the designated contract market on which such AT Person is trading" and "the ability of other market participants to trade on the designated contract market on which such AT Person is trading," are appropriate, however, as these actions would disrupt an exchange or other market participants, respectively.

We recommend the Commission omit the first part of the definition from the proposed regulation.

B. Registration with Commission -- § 1.3(xx)

MMI supports the Commission's Proposal to impose "Registration of Certain Persons Not Otherwise Registered with the Commission". MMI understands that registration will help ensure all market participants that actively trade on Commission-regulated markets implement appropriate controls. Such controls should impact trading firms that access the market directly and use ATSs that could potentially malfunction and create risks to other market participants.

C. Standards for Development, Testing, Monitoring, and Compliance of Algorithmic Trading Systems -- § 1.81

MMI is concerned that the Proposed Rule requiring, under section § 1.81(a), that AT Persons "maintain a source code repository to manage source code access, persistence, copies of all code used in the production environment, and changes to such code" gives rise to unnecessary and substantial risks to market participants, negatively impacting the efficiency, integrity and competitiveness of markets, and

could be viewed as somewhat arbitrary and capricious given the lack of any specified and identified basis for implementing the Proposed Rule requirement for several main reasons:

1) Source Code Definition. The term "source code" is not explained nor defined in the Proposal. There have been no fulsome public discussions nor debate about such code. No agreed-upon or standardized definition of source code exists within the industry. Therefore, requesting such would result in enormous confusion, at best;

2) Government Interest. The benefit and government interest in the use of such information is not clearly expressed nor explained by the Commission. In fact, there is no prescribed Commission authority to even request such information (absent a subpoena). There is no detailed justification nor explanation as to the potential use of such code, nor any appropriate particulars related to Agency storage and analysis. Such a requirement is unnecessary because subpoena powers already exist to demand certain information from market participants. The proposed requirement of section § 1.81(a), therefore, creates legal uncertainties and would serve to circumvent the subpoena process;

3) Code Market Implications. The Proposal does not reflect the reality of how contemporary market mechanisms work together. Viewed by itself, such code would not provide a thorough interpretation of any potential market interactions because there are an exponential number of variables informing and continuously steering the source code.

There are three elements to understanding the production environment of an algorithm: (A) The technology that informs the algorithm; (B) The algorithm itself; and (C) The technology that executes the algorithm. Often, the informing and executing elements come from third parties. For example, an algorithm might draw stock data from Bloomberg and go to market through Portware's execution management system. Given how algorithms function in today's contemporary market structure, imposition of a regulatory obligation on algorithmic trading firms would represent only a partial glimpse of any market impact, unless coding information from technology vendors is viewed simultaneously. Even then, divining market impact(s) would be a difficult endeavor.

To illustrate the importance of the interaction of these elements, consider that a Twitter hack claiming an explosion at the White House caused a market-wide algorithm arrhythmia and secondly, an improper version control software caused a Knight Capital algorithm to hemorrhage $440 million in trade losses in 45 minutes. In both cases, the algorithm itself was not the cause of the malfunction.

Furthermore, source code (at least in part) could indicate how impacted firms may trade—something no other market participants are required to provide to the Commission. Such a precedent-setting requirement that singles out one segment of the trading ecosystem (algorithmic traders) is deeply troubling and could be considered as arbitrary and capricious;

4) Intellectual Property and Trade Secrets. Much source code is protected by copyright law and, when kept secret, by trade secret law.[2] The Proposal, therefore, raises myriad legal issues,

[2] See Lilith Games (Shanghai) Co. v. uCool, Inc., 2015 WL 4128484, at *5 (N.D. Cal. July 08, 2015).

including, but not limited to, protections related to trade secrets, privacy, intellectual property, copyright, and regulatory takings. These matters also may create added liability for the Commission, and potentially for MMI members.

Specifically, since the source code itself is never distributed to the public, it qualifies as a trade secret. Furthermore, U.S. copyright regulations permit the protection of software. If the source code were required to be distributed or inadvertently disclosed, the value of such rights would be compromised, as third parties would be able to determine, at least in part, how the algorithm functions and utilize such ideas or concepts in their software. Such circumstances could decimate a trading firm, costing hundreds of millions of dollars;

5) Privacy Law, Security and Cybersecurity Concerns. There are numerous concerns related to the protection of source code and algorithms that could potentially be requested by regulators. The security and the integrity of source code and algorithms need to be protected against cyber hacks and data breaches. There is a concern about the integrity and security of the Commission's systems (i.e., the 2012 CFTC hacking). We appreciate comments by the Commission that it routinely handles confidential information without incident, but this is different than reviewing order/trade blotters, e-mail and internal accounting documents. A breach of source code could be exceedingly more destructive, if not terminal, for firms;

6) Cost Benefits. In response to the Commission's question as to the industry's status in maintaining source code repositories and the cost for firms to maintain such repository, we respectfully submit the following. Generally, market participants already store such code to their specific needs. However, the costs associated with creating a new regulatory requirement and the risks associated to the disclosure of such information to regulators (and perhaps inadvertently to the public) defy an acceptable cost-benefit analysis of the proposed section § 1.81(a). Such legally-protected property related to coding is the lifeblood of many firms. It is their "secret formula" just like the ingredients in Coca Cola;

7) Improper Takings & Employment Law. While these arguments are secondary to the previously stated matters, we nonetheless have concerns related to the "improper taking doctrine" and to employment law. First, under the "improper taking doctrine", certain intellectual property rights, including patents, copyrights, and trade secrets, are legally protected—in some cases indefinitely—against "regulatory taking" of the information under the Fifth Amendment of the Constitution. For trade secrets specifically, such protection is available solely because they are not disclosed to the public. By giving access to regulators, those trade secret rights would be at risk of being accessed by the public and potentially create enormous liability for the Commission. [3] Second, potential employment law issues could create additional risk if CFTC employees, having access to such sensitive coding make use of it once they leave the Commission. MMI has serious concerns about source code information being accessible to individuals in a potentially unprotected manner; and

[3] The Takings Clause of the Fifth Amendment protects interests in intellectual property. *Ruckelshaus v. Monstanto Co.,* 467 U.S. 986 (1984) (trade-secret property right under state law was protected by the Taking Clause). A regulatory taking occurs when the government, acting in a regulatory capacity, restricts the use of private property to the extent that the "regulation goes too far and in essence effects a taking." Id. (quotations omitted). Courts weigh the following three factors when considering whether a regulation effects a taking: (1) economic impact of the regulation on the claimant; (2) the extent to which the regulation has interfered with distinct investment-backed expectations; and (3) the character of the governmental action. Id. citing *Connolly v. Pension Ben. Guar. Corp.,* 475 U.S. 211, 224-25 (1986).

8) **Harmonization with Global Regulation**. Given that the rules proposed under § 1.81 have been drafted to be consistent with other regulation, including the recast Markets in Financial Instruments Directive (MiFID II)[4] in the EU, we wish to highlight that the European Securities and Markets Authority (ESMA) initially proposed, and ultimately abandoned, MiFID II requirements relating to maintenance and inspection of source code following robust feedback from the market.

In May 2014, ESMA initially proposed that participants should implement appropriate controls "to ensure that the deployed binary codes were actually compiled from the documented source codes." Likewise, ESMA proposed to require participants that insourced software to have a code escrow agreement with vendors, and that providers of direct electronic access would be required to analyze source code provided by their clients.[5] However, in its follow-up consultation paper in December 2014, ESMA stated it agreed with market responses that such requirements relating to source code would be too cost intensive and could create a significant conflict of interest between market participants, in addition to the concern that the provision of this proprietary information could breach intellectual property law.[6]

D. Compliance Reports Submitted by AT Persons and Related Recordkeeping Requirements -- § 1.81 and 1.83

As started previously, we do not believe the Commission has authority to require firms to maintain source code repositories in accordance with books and records requirements, nor would it achieve the desired objectives of the Commission. In addition to the lack of authority, we believe that a new and untested source code recordkeeping requirement obligation would create a potentially burdensome process and increased storage costs on market participants. Excessive costs could also serve to discourage new entrants, stifling competition and innovation. We recommend firms keep such information in their own prescribed fashion and, based upon a subpoena, be required to provide such requested information.

E. Disclosure and Transparency in Trade Matching Systems and Self-Trade Prevention Tools -- § 40.23 and 38.401(a)

The Commission's proposed rules on "self-trade" prevention are a complement to the prohibition under the CEA regulations regarding wash trades.[7] Wash trading has been defined as "entering into, or purporting to enter into, transactions to give the appearance that purchases and sales have been made, without incurring market risk or changing the trader's market position."[8] Therefore, intentional self-trades could constitute wash trading. We believe that exchanges (Designated Contract Markets or DCMs)—at the matching engine level—should be responsible for such self-trade prevention functionality.

F. Development and Testing of Algorithmic Trading Systems -- § 1.81

[4] Directive on Markets in Financial Instruments repealing Directive 2004/39/EC and amending Directive 2011/61/EU and Directive 2002/92/EC.

[5] See https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-548_discussion_paper_mifid-mifir.pdf, pages 222 and 231
[6] See: https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-1570_cp_mifid_ii.pdf - pages 349 and 357
[7] See Section 4c(a) of the CEA, 7 U.S.C. 6c(a)(2)(A), and Commission regulation 1.38(a).
[8] See CFTC Glossary, available at: http://www.cftc.gov/ConsumerProtection/EducationCenter/CFTCGlossary.

We generally support the Commission's proposal related to: (A) The requirement of implementing written policies and procedures for the development and testing of its algorithmic trading systems (1.81(a)(1)); and, (B) The requirement for regular testing of algorithmic trading and stress testing without specific testing protocols nor minimum testing frequency. However, we would like to see further clarification to ensure the testing procedures are not overly prescriptive.

In this context we believe it is again helpful to refer to the work recently completed by the European market as part of the MiFID II consultations. In particular, ESMA initially circulated a draft proposal pertaining to non-live trading environments that:

> "…was viewed critically by most respondents, in particular because they considered that an exclusive reliance on non-live test environments provided by trading venues would inappropriately limit firms' testing options, while also creating quality and cost concerns. ESMA has consequently reviewed its approach regarding non-live testing requirements for investment firms in conjunction with the test environment obligations for trading venues. The approach taken in [MiFID II] is as follows: […] the Regulation allows firms the option of using a non-live testing environment that is appropriate to the type of testing being performed, i.e., a firm's own testing environment, or a third-party test environment (provided by a trading venue, DEA providers, or vendor)."[9]

We request further clarification in regards to non-live and third-party (exchange or other) testing environments.

G. DCM Market Maker and Trading Incentive Programs -- § 40.25

We support the requirement of providing additional public information regarding trading incentive programs and the restriction of certain payments by DCMs in connection with such programs. The proposed section ensures that market maker or trading incentive programs do not incentivize abusive, manipulative, or disruptive trading practices, and also do not encourage or facilitate behavior that distorts markets. We believe that this requirement will enhance transparency, market integrity and effective self-regulation by all DCMs.

III. CONCLUSION

We appreciate this opportunity to provide comments on the proposed regulatory regime and respectfully request that the Commission consider the comments set forth herein as it develops any final rulemaking in this proceeding. We reserve the possibility of commenting further in an additional letter before the end of the comment period.

If you have any questions, please contact me.

Respectfully submitted,

[9] See paragraph 18 https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-esma-1464_-_final_report_-_draft_rts_and_its_on_mifid_ii_and_mifir.pdf

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