



**DISCIPLINARY DECISION**  
**Cboe BYX Exchange, Inc.**  
**Star No. 20130375726/File No. USRI-1857**  
**Lime Brokerage LLC**

Pursuant to Exchange Rule 8.3, attached to and incorporated as part of this Decision is a Letter of Consent.

**Applicable Rule(s)**

- BYX Rules 3.1 – Business Conduct of Members, 3.2 – Violations Prohibited, and 5.1 – Written Procedures; and Rule 15c3-5 – Risk Management Controls for Brokers or Dealers with Market Access, promulgated under the Securities Exchange Act of 1934

**Sanction**

A censure and a monetary fine in the amount of \$625,000, of which \$88,500 shall be paid to Cboe BYX<sup>1</sup>

**Acceptance Date**

July 23, 2019

/s/ Greg Hoogasian

Greg Hoogasian, CRO, SVP

**Effective Date**

August 15, 2019

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<sup>1</sup> The balance of the fine will be paid to the self-regulatory organizations listed in Paragraph 30 of the Letter of Consent.

**Cboe BYX Exchange, Inc.**  
**LETTER OF CONSENT**  
**Star No. 20130375726**  
**USRI-1857**

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In the Matter of:

Lime Brokerage LLC  
1001 Avenue of the Americas  
16<sup>th</sup> Floor  
New York, NY 10018,

Respondent

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Pursuant to the provisions of Cboe BYX Exchange, Inc. ("BYX" or the "Exchange") Rule 8.3, Lime Brokerage LLC ("Lime" or the "Firm") submits this Letter of Consent for the purposes of proposing a settlement of the alleged rule violations described below.

The Firm neither admits nor denies the findings for Matter No. 20130375726 (including merged Matter Nos. 20150463435, 20140413195 and 20160522323) and the stipulation of facts and findings described herein do not constitute such an admission.

**BACKGROUND**

1. During all relevant periods herein, Lime was acting as a registered Broker-Dealer and was a member of the Exchange. The Firm's registration remains in effect.
2. This matter originated from surveillances by Exchange Regulatory Staff and FINRA's Department of Market Regulation, Quality of Markets team, on behalf of BYX and seven other self-regulatory organizations.<sup>1</sup>

**VIOLATIVE CONDUCT**

**Matter No. 20150463435**

**Applicable Rules**

3. During all relevant periods herein, the following rules were in full force and effect: Exchange Rules 5.1 – Written Procedures and 3.1 – Business Conduct of Members.

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<sup>1</sup> The seven other self-regulatory organizations are Cboe EDGX Exchange, Inc., Cboe BZX Exchange, Inc., Cboe EDGA Exchange, Inc., the Nasdaq Stock Market LLC, Nasdaq BX, Inc., Nasdaq PHLX LLC, and FINRA.

4. During all relevant periods herein, Exchange Rule 5.1 provided that each Member shall establish, maintain and enforce written procedures which will enable it to supervise properly the activities of associated persons of the Member and to assure their compliance with applicable securities laws, rules, regulations and statements of policy promulgated thereunder, with the rules of the designated self-regulatory organization, where appropriate, and with Exchange Rules.
5. During all relevant periods herein, Exchange Rule 3.1 required members, in the conduct of their business, to observe high standards of commercial honor and just and equitable principles of trade.

#### **Lime's Direct Market Access Customers**

6. From December 1, 2014 through August 3, 2016 ("Review Period 1"), Lime offered its direct market access customers the ability to trade directly on multiple securities exchanges under Lime's exchange memberships, using one of Lime's unique four-letter codes, or market participant identifiers. Lime's direct market access customers included foreign and domestic trading entities and other institutional clients. As the broker-dealer offering direct market access to customers, Lime had supervisory obligations for their trading activity entered through the Firm.

#### **Types of Potentially Manipulative Trading in Direct Market Access Customer Accounts**

7. Lime's direct market access customers engaged in trading activity that raised red flags at Lime for potential manipulative trading, including a variety of practices, such as "layering," "spoofing," "ramping," and "marking."
8. Layering typically includes placement of multiple limit orders on one side of the market at various price levels that are intended to create the appearance of a change in the levels of supply and demand. In some instances, layering involves placing multiple limit orders at the same or varying prices across multiple exchanges or other trading venues. An order is then executed on the opposite side of the market and most, if not all, of the multiple limit orders are immediately cancelled. The purpose of the multiple limit orders that are subsequently cancelled is to induce, or trick, other market participants to enter orders due to the appearance of interest created by the orders such that the trader is able to receive a more favorable execution on the opposite side of the market.
9. Similar to layering, spoofing involves placement of non-bona fide orders, generally inside the existing national best bid or offer, with the intention of briefly triggering some type of response from another market participant, followed by cancellation of the non bona fide order, and the entry of an order on the other side of the market.
10. Ramping includes trading practices designed to artificially increase or decrease the price of a security prior to the open or close for the benefit of resting order interest,

*i.e.*, placing unexecuted on-open or on-close orders in advance of an exchange's opening or closing cross.

11. Marking involves attempting to influence the opening or closing price of a security by effecting purchases or sales at or near the open or close of normal trading hours. Such activity can artificially inflate or depress the closing price for the security.

**Lime Failed to Reasonably Supervise for Potential Manipulative Trading by Its Direct Market Access Customers**

12. Lime failed to establish and maintain a supervisory system and written supervisory procedures ("WSPs") reasonably designed to achieve compliance with rules prohibiting layering, spoofing, ramping, marking the open or close, and other potentially manipulative trading.
13. Throughout Review Period 1, Lime's supervisory system for reviewing for potentially manipulative trading by direct market access customers was dependent on a commercial surveillance system that generated reports for various forms of violative trading activity (the "Surveillance System"). Lime determined the parameters for the Surveillance System to generate alerts for ramping, marking, layering, and spoofing.
14. Lime's WSPs identified the Surveillance System and described the exception reports that it generated for potentially manipulative trading by direct market access customers. The WSPs stated how often Lime's Chief Compliance Officer ("CCO") or the CCO's designee should review exception reports and required that reviews be documented. But the WSPs did not describe how to conduct the reviews, the factors to consider in reviewing the exception reports for potentially manipulative trading activity, or how the reviews of exception reports were supervised by the Firm. Nor did the WSPs explain under what circumstances the reviewer should escalate concerns regarding any alert in an exception report for direct market access customers' trading activity or instead close an alert with no further action.
15. During Review Period 1, Lime's practice was to place reviewed Surveillance System alerts in one of three categories: "watch," "investigation," or "no further action." The WSPs required that all "watch" alerts be "explained" in the Surveillance System's comment field. The WSPs, however, did not state any factors to consider when placing an alert under "watch" status, what the reviewer should explain about the "watch" alert in the comment field, or how the Firm should supervise such alerts. Moreover, the WSPs provided no guidance concerning alerts placed under "investigation" or those closed with "no further action." Lime's WSPs and its supervisory system failed to include factors to consider in determining when such decisions were appropriate or how such decisions would be supervised.

16. During Review Period 1, Lime tasked a single analyst with manually reviewing the Surveillance System alerts. Lime delegated to the analyst authority to investigate and close out surveillance alerts, but did not provide the analyst with any written guidance or explanation of the factors to consider in reviewing the alerts and determining alert categories or dispositions. Before joining the Firm, the analyst had not used the Surveillance System or conducted surveillance for all the forms of potentially manipulative trading identified by the Surveillance System.
17. During Review Period 1, Lime failed to reasonably respond to red flags of potentially manipulative trading by the Firm's direct market access customers. These red flags included thousands of Surveillance System alerts that were generated by two such customers, including the following:
  - a. Customer A, a foreign investment fund, generated over 900 Surveillance System alerts for potential layering or spoofing between March 2015 and July 2016. These alerts triggered within days of Customer A's beginning trading through Lime and continued each month from March 2015 through July 2016. Each time that Lime's analyst questioned Customer A about an alert, the analyst accepted the customer's explanation of the trading and closed the alert with no further action.
  - b. Customer B, a domestic investment fund, generated over 1,000 Surveillance System alerts, including over 500 alerts for possible ramping and marking the close, between December 2014 and July 2016. Each time that Lime's analyst questioned Customer B about an alert, the analyst accepted the customer's explanation of the trading and closed the alert with no further action.
18. The acts, practices, and conduct described in paragraphs 12 to 17 constituted violations of BYX Rules 5.1 and 3.1.

**Matter Nos. 20140413195 and 20160522323**

**Relevant Rules**

19. During all relevant periods herein, Securities and Exchange Act of 1934 ("Exchange Act") Rule 15c3-5(b) required a broker-dealer with market access, or that provided a customer or any other person with access to an exchange or alternative trading system through use of its market participant identifier or otherwise, to establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory, and other risks of this business activity.
20. Rule 15c3-5(c)(1) required such risk management controls and supervisory procedures to be "reasonably designed to systematically limit the financial exposure of the broker or dealer that could arise as a result of market access." Rule 15c3-5(c)(1)(ii) required that such controls and procedures be reasonably designed to "[p]revent the entry of erroneous orders, by rejecting orders that exceed appropriate price or size parameters, on an order-by-order basis or over a short period of time, or that indicate duplicative orders."



21. During all relevant periods herein, Exchange Rule 3.2 – Violations Prohibited – stated, in relevant part, that “[n]o Member shall engage in conduct in violation of the [Securities Exchange Act of 1934, as amended, or] the rules or regulations thereunder ... Every Member shall so supervise persons associated with the Member as to assure compliance with those requirements.”

**Lime’s Pre-Trade Risk Controls**

22. During the period from February 2012 through December 3, 2015 (“Review Period 2”), Lime failed to establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to prevent the entry of erroneous or duplicative orders by its direct market access customers. Lime had no duplicative order controls or pre-trade price controls that took into consideration the individual characteristics of the securities its direct market access customers traded. While Lime had certain controls and procedures regarding the entry of erroneous orders, the controls discussed below were not reasonable for its direct market access business.
23. Lime set order rate limits and burst rates that were not reasonably tailored to its direct market access customers’ business or reasonably designed to prevent the transmission of excessive message traffic routed to exchanges, including BYX, by its direct market access customers. Such rate limits are important to avoid market harm because transmission of excessive messages could indicate erroneous or duplicative orders, system outages or malfunctions, or potentially manipulative trading.
24. Lime established rate limits that allowed its direct market access customers to submit to exchanges, including BYX, a designated maximum number of orders within a three-second window. In determining customer rate limits, however, Lime did not take into consideration individual trading strategies of its customers. Further, Lime had no documentation explaining why it assigned certain rate limits, why the rate limits were appropriate for the customer, or how the rate limits were reasonably designed to prevent unintended excessive messaging.
25. For instance, although Lime was aware from a post-trade report that identified potential duplicative orders that between December 2013 and February 2015, a certain direct market access customer was entering potential duplicative orders on a fairly consistent basis, the Firm failed to take steps to determine whether or not the orders were duplicative or otherwise erroneous. Lime failed to take such steps even though it had been contacted by various regulators, including BYX, regarding excessive quoting activity that was attributable to this same direct market access customer, and even though its written supervisory procedures required that the Firm’s supervisor contact customers and document such contacts concerning potential duplicative orders. Lime failed to implement duplicative order controls that may have prevented the excessive quoting activity.

26. In addition, on December 3, 2015, the same direct market access customer copied a segment of code from one of its algorithms to a different algorithm that was designed to run at a different time of the trading day. As a result of the code change, the customer's algorithm began generating orders involving 12 securities that resulted in more than 1,000 updates to BYX's protected, or "top of the book" quotation for each of the 12 securities within a one-second window for each security. Lime had no documentation explaining why it assigned certain rate limits, why the rate limits were appropriate for the customer, or how the rate limits were reasonably designed to prevent unintended excessive messaging.
27. For the reasons set forth in paragraphs 22 to 26, during Review Period 2, Lime failed to establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory, and other risks of its direct market access business activity to prevent the entry of erroneous orders, by rejecting orders that exceeded appropriate price or size parameters, on an order-by-order basis or over a short period of time, or that indicated duplicative orders. Lime's conduct violated Exchange Act Rules 15c3-5(b) and (c)(1)(ii), and BYX Rules 3.1, 3.2, and 5.1.

### SANCTIONS

28. The Firm does not have any prior relevant disciplinary history specifically related to BYX rules and Exchange Act rules regarding supervision of potentially manipulative trading by direct market access customers and market access risk controls.
29. In light of the alleged rule violations described above, the Firm consents to the imposition of the following sanctions:
- a. A censure;
  - b. A monetary fine in the amount of \$625,000, of which \$88,500 shall be paid to BYX;<sup>2</sup> and
  - c. An undertaking to provide a written report to FINRA within 90 days after the date of the Notice of Acceptance of this Letter of Consent, concerning reasonable controls, procedures, and other measures taken by the Firm to remediate the violative conduct described herein regarding the Firm's supervision of direct market access customer activity with respect to potential manipulative trading by its customers and with respect to its pre-trade controls. The written report shall be certified by a registered principal who is also a senior executive officer of the Firm and shall address, at a minimum, the implementation and performance of the Firm's controls, procedures, and other measures; the steps taken by supervisory personnel to achieve compliance with regard to supervision of direct market access

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<sup>2</sup> The balance of the fine will be paid to the self-regulatory organizations referenced in paragraph 30, below.

customer trading and the results of such supervisory reviews; training; and modification or recommendations for improvements to the controls, procedures, and other measures and dates of the effectiveness of such modifications or planned implementation of such recommendations. Upon written request showing good cause, FINRA staff may extend any of the procedural dates set forth herein.

30. Acceptance of this Letter of Consent is conditioned upon acceptance of similar settlement agreements in related matters between the Firm and each of the following self-regulatory organizations: (i) FINRA; (ii) Cboe BZX Exchange, Inc.; (iii) Cboe EDGX Exchange, Inc.; (iv) Cboe EDGA Exchange, Inc.; (v) the NASDAQ Stock Market, LLC; (vi) Nasdaq BX, Inc.; and (vii) Nasdaq PHLX LLC.

If this Letter of Consent is accepted, the Firm acknowledges that it shall be bound by all terms, conditions, representations and acknowledgements of this Letter of Consent, and, in accordance with the provisions of Exchange Rule 8.3, waives the right to review or to defend against any of these allegations in a disciplinary hearing before a Hearing Panel. The Firm further waives the right to appeal any such decision to the Board of Directors, the U.S. Securities and Exchange Commission, a U.S. Federal District Court, or a U.S. Court of Appeals.

The Firm waives any right to claim bias or prejudgment of the Chief Regulatory Officer ("CRO") in connection with the CRO's participation in discussions regarding the terms and conditions of this Letter of Consent, or other consideration of this Letter of Consent, including acceptance or rejection of this Letter of Consent. The Firm further waives any claim that a person violated the ex parte prohibitions of Exchange Rule 8.16, in connection with such person's participation in discussions regarding the terms and conditions of this Letter of Consent, or other consideration of this Letter of Consent, including its acceptance or rejection.

The Firm agrees to pay the monetary sanctions upon notice that this Letter of Consent has been accepted and that such payments are due and payable. The Firm specifically and voluntarily waives any right to claim that it is unable to pay, now or at any time hereafter, the monetary sanctions imposed in this matter.

The Firm understands that submission of this Letter of Consent is voluntary and will not resolve this matter unless and until it has been reviewed and accepted by the CRO, pursuant to Exchange Rule 8.3. If the Letter of Consent is not accepted, it will not be used as evidence to prove any of the allegations against the Firm.

The Firm understands and acknowledges that acceptance of this Letter of Consent will become part of its disciplinary record and may be considered in any future actions brought by BYX or any other regulator against the Firm. The Letter of Consent will be published on a website maintained by the Exchange in accordance with Exchange Rule 8.18.

The Firm understands that it may not deny the charges or make any statement that is inconsistent with the Letter of Consent. The Firm may attach a Corrective Action Statement to this Letter of Consent that is a statement of demonstrable corrective steps taken to prevent future misconduct.



Any such statement does not constitute factual or legal findings by the Exchange, nor does it reflect the views of the Exchange or its staff.

The undersigned, on behalf of the Firm, certifies that a person duly authorized to act on its behalf has read and understands all of the provisions of this Letter of Consent and has been given a full opportunity to ask questions about it; that it has agreed to the Letter of Consent's provisions voluntarily; and that no offer, threat, inducement, or promise of any kind, other than the terms set forth herein, has been made to induce the Firm to submit it.

Date: 7/18/19

Lime Brokerage LLC

By: 

Name: FARID NAIB

Title: CEO