DISCIPLINARY DECISION
Cboe BYX Exchange, Inc.
Star No. 20120347345/File No. USRI-2820
Credit Suisse Securities (USA) LLC

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

Applicable Rules

- BYX Rules 5.1 – Written Procedures and 3.1 – Business Conduct of Members.
- Rule 15c3-5 promulgated by the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934 – Risk Management Controls for Brokers or Dealers with Market Access.

Sanction

- A censure and a monetary fine in the amount of $591,500. In addition, Credit Suisse Securities (USA) LLC must comply with the undertakings detailed in the Letter of Consent.

Effective Date

November 20, 2019

/s/ Greg Hoogasian

Greg Hoogasian, CRO, SVP

Cboe BYX Exchange, Inc.
LETTER OF CONSENT
Star No. 20120347345
File No. USRI-2820

In the Matter of:

Credit Suisse Securities (USA) LLC
11 Madison Avenue
11th Floor
New York, NY 10010,

Respondent

Pursuant to the provisions of Cboe BYX Exchange, Inc. ("BYX" or the "Exchange") Rule 8.3, Credit Suisse Securities (USA) LLC ("Credit Suisse" 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 Star No. 20120347345 (including merged matters 20140401645, 20140414311, 20140437253, 20140425628, 20150482629, 20160507055, 20170556243, 20170560054, 20170560916, 20160522839, 20170551246 and 20170531305)/File No. USRI-2820 and the stipulation of facts and findings described herein do not constitute such an admission.

BACKGROUND

1. Credit Suisse is a U.S. broker-dealer and a subsidiary of Credit Suisse Group, a global financial services company with subsidiaries around the world. Credit Suisse has been a registered Member of BYX since October 1, 2010. The firm's registration remains in effect. The firm's principal place of business is New York, New York, and it currently has over 2,500 registered persons and 34 branch offices. The firm does not have any relevant disciplinary history.

2. This matter originated from surveillance conducted by Exchange Regulatory Staff and surveillance conducted by Financial Industry Regulatory Authority's ("FINRA") Department of Market Regulation, Quality of Markets team, on behalf of BYX.[1]

[1] FINRA conducted the same surveillance on behalf of eleven other self-regulatory organizations: the NASDAQ Stock Market LLC ("Nasdaq"), Nasdaq BX, Inc. ("BX"), Nasdaq PHLX LLC ("PHLX"), the NASDAQ Options Market LLC ("NOM"), the New York Stock Exchange LLC ("NYSE"), NYSE Arca, Inc. ("NYSE Arca"), NYSE American LLC ("NYSE American"), Cboe BZX Exchange, Inc. ("BZX"), Cboe EDGA Exchange, Inc. ("EDGA"), Cboe EDGX Exchange, Inc. ("EDGX") and FINRA.

VIOLATIVE CONDUCT

Applicable Rules

3. During relevant periods herein, the following rules were in full force and effect: Rule 15c3-5 promulgated by the Securities and Exchange Commission ("SEC") pursuant to the Securities Exchange Act of 1934 (the "Market Access Rule" or "Rule 15c3-5") – Risk Management Controls for Brokers or Dealers with Market Access and Exchange Rules 5.1 – Written Procedures and 3.1 – Business Conduct of Members.

4. Rule 15c3-5(b) required a broker-dealer with market access, or that provides a customer or any other person with access to an exchange or ATS 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.

5. Rule 15c3-5(c)(1)(i) required market access broker-dealers to have financial risk management controls and supervisory procedures reasonably designed to prevent the entry of orders that exceed appropriate pre-set credit or capital thresholds in the aggregate for each customer and the broker or dealer and, where appropriate, more finely-tuned by sector, security, or otherwise by rejecting orders if such orders would exceed the applicable credit or capital thresholds.

6. Rule 15c3-5(c)(1)(ii) required market access broker-dealers to establish, document, and maintain a system of financial risk management controls and supervisory procedures reasonably designed to prevent 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.

7. Rule 15c3-5(c)(2)(iv) required such broker-dealers to have regulatory risk management controls and supervisory procedures that are reasonably designed to ensure compliance with all regulatory requirements, including being reasonably designed to assure that appropriate surveillance personnel receive immediate post-trade execution reports that result from market access. In the Rule 15c3-5 Adopting Release dated November 3, 2010, the SEC stated that the "regulatory requirements" described in Rule 15c3-5(a)(2) and (c)(2) included "post-trade obligations to monitor for manipulation and other illegal activity."[2]

8. Rule 15c3-5(e)(1) required a broker-dealer to review, at least annually, the business activity of the broker-dealer in connection with market access to assure the overall effectiveness of its risk management controls and supervisory procedures.

[2] SEC Rule 15c3-5 Adopting Release, 75 Fed. Reg. 69792, 69797-69798 (Nov. 15, 2010).

9. Rule 15c3-5(e)(2) further required that the Chief Executive Officer (or equivalent officer) of the broker-dealer certify annually that the above review occurred and that the firm's risk management controls and supervisory procedures comply with Rule 15c3-5(b) and (c).

10. BYX 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.

11. BYX Rule 5.1 required Members to 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 BYX Rules.

Overview

12. During the period of October 2010 through July 2014 (the "review period"), Credit Suisse offered its clients, which included FINRA registered broker-dealers and other institutional entities, some of whom were foreign unregistered entities, direct market access ("DMA") to numerous exchanges and alternative trading systems ("ATSs"). During the review period, the firm executed over 300 billion shares on behalf of its DMA clients and generated over $300 million in revenue from its DMA business. Nevertheless, the firm did not implement reasonably designed surveillances and supervisory procedures to monitor for certain kinds of potentially manipulative activity by its DMA clients.

13. During the period of February 2011 through July 2014, certain of the firm's DMA clients engaged in trading activity that generated over 50,000 alerts at FINRA and multiple exchanges for potential manipulative trading, including spoofing,[3] layering,[4] wash sales and pre-arranged trading. Among the firm's DMA clients were three that, at their peak in June 2014, accounted for about 20 percent of the firm's overall order flow and triggered a majority of the alerts for potentially manipulative trading. Credit Suisse, however, did not begin to implement a

[3] Spoofing is a manipulative trading tactic designed to induce other market participants into executing trades. Spoofing is a form of market manipulation that generally involves, but is not limited to, the market manipulator placing an order or orders with the intention of cancelling the order or orders once they have triggered some type of market movement and/or response from other market participants, from which the market manipulator might benefit by trading on the opposite side of the market.

[4] Layering is a form of market manipulation that 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.

supervisory system or procedures reasonably designed to review for potential spoofing, layering, wash sales or pre-arranged trading by its DMA clients until Fall 2013 - years after it began expanding its DMA business. During this period, Credit Suisse grew its DMA activity from executing 0.7 billion shares for its DMA clients in 2010 to 104 billion shares in 2014.[5] However, Credit Suisse did not meet its supervisory obligations pursuant to BYX Rule 5.1 despite the implementation of the Market Access Rule and accompanying regulatory guidance. In addition, in 2012 and 2013, Credit Suisse was put on notice of gaps in its surveillance system by red flags raised in correspondence with a DMA client and by an internal audit.

14. During the review period, the Securities and Exchange Commission adopted the Market Access Rule on November 3, 2010, which requires brokers or dealers with access to trading securities directly on an exchange, including those providing sponsored or direct market access to customers, to establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory and other risks associated with market access. Rule 15c3-5 became effective on July 14, 2011.[6]

15. During the period between July 14, 2011 through July 2014, Credit Suisse did not implement effective post-trade controls to monitor for the particular types of potential manipulative activity by its DMA clients described above, and thereby the firm did not establish, document, and maintain risk management controls and supervisory procedures reasonably designed to ensure compliance with all regulatory requirements as required by Rule 15c3-5(c)(2)(iv). Additionally, as a result of the above, the firm did not fully comply with its supervisory obligations pursuant to BYX Rules 5.1 and 3.1 during the period of October 2010 through July 2014.

16. During the period of July 2011 through August 2016, the firm also did not comply fully with several other provisions of the Market Access Rule, including those related to the prevention of erroneous orders, credit limits and annual review.

17. As a result of the conduct described above, Credit Suisse violated 15c3-5(b), (c)(1)(i), (c)(1)(ii), (c)(2)(iv), (e) and BYX Rules 3.1 and 5.1.

---

[5] The firm's DMA desk, on behalf of its clients, executed approximately 0.7 billion shares in 2010, 74 billion shares in 2011, 95 billion shares in 2012, 106 billion shares in 2013 and 104 billion shares in 2014. Not all of these shares were executed on BYX or other exchanges.

[6] The July 14, 2011 compliance date was extended to November 30, 2011 for Rule 15c3-5(c)(1)(i) and all requirements of Rule 15c3-5 for fixed income securities.

Credit Suisse Did Not Reasonably Monitor and Surveil for Potentially Manipulative Trading by DMA Clients

Credit Suisse's DMA Business

18. During the review period, Credit Suisse provided DMA to clients through what was then known as its Low Latency DMA ("LLDMA") desk.

19. LLDMA provided access to exchanges, including BYX, as well as other venues. LLDMA clients directed their orders to BYX and other exchanges through the firm's Market Access Gateway ("MAGic"), which houses many of the firm's pre-trade market access controls.

20. LLDMA provided market access to an average of 90 DMA clients each year during the review period. During the review period, Credit Suisse executed over 300 billion shares on behalf of its LLDMA clients and realized over $300 million in revenue from its LLDMA business.

21. From 2010 through 2013, the firm onboarded three DMA clients ("Client A," "Client B" and "Client C"), which included two registered broker-dealers and one foreign non-registered entity. At the peak of their trading activity in June 2014, those three clients accounted for over 20% of the firm's total order flow and 3.6% of all U.S. order flow. Those three clients generated the majority of the over 50,000 alerts at FINRA and the exchanges for potentially manipulative trading during the review period.

Credit Suisse Did Not Reasonably Supervise its Client's DMA Activity for Potentially Manipulative Trading

22. From October 2010 through July 2014, the firm did not establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to monitor for potential spoofing, layering, wash sales and pre-arranged trading by its DMA clients. As a result, orders for billions of shares entered U.S. markets without being subjected to post-trade supervisory reviews for potential spoofing, layering, wash sales or pre-arranged trading.

23. Specifically, from October 2010 through October 2013, the firm did not have a supervisory system to detect potential spoofing or layering by DMA clients.[7] In October 2013, the firm implemented automated surveillance reviews to detect potential spoofing and layering by DMA clients during regular market hours only. From October 2013 through late April 2014, the firm's automated surveillance reviews generated over 1,500 alerts for potential spoofing and layering, but none of the alerts captured the activity of Clients A, B and C. In late April 2014, the firm made changes to the automated surveillance reviews, at which time they began to generate alerts concerning the activity of Clients A, B and C. In April 2014 and

[7] Since 2009, the firm had a tool in place to detect potential spoofing by the firm's market-making unit.

May 2014, the firm notified Clients A, B and C that their electronic trading agreements, which included the LLDMA business, were being terminated. The terminations were effective on May 30, 2014 for Client A, July 2, 2014 for Client B, and July 10, 2014 for Client C.

24. The firm did not implement a review to detect potential spoofing and layering in pre-market hours until July 2014 when it implemented a proprietary supervisory tool.[8]

25. Additionally, the firm did not establish, document, and maintain a system of risk management controls and supervisory procedures to monitor for potential wash sales or pre-arranged trades by DMA clients until November 2013. In November 2013, the firm implemented automated reports to detect potential wash sales or pre-arranged trades by DMA clients.[9] These reports generated alerts if the same client unique identifier was on both sides of a transaction. Many of the firm's clients had multiple unique identifiers. These controls were not reasonably designed for these particular DMA clients because those clients presented a risk of executing wash sales or pre-arranged trades using different identifiers. The firm did not implement surveillance tools that were designed specifically to detect and prevent potential wash sales or pre-arranged trading across DMA identifiers, including for Clients B and C, until May 2014.

26. From October 2010 through March 2014, the firm's written supervisory procedures did not address potential layering, spoofing, wash sales or pre-arranged trading by DMA clients.[10]

Credit Suisse was on Notice Regarding Gaps in its Manipulative Trading Surveillance and Supervisory System

27. The firm continued to expand its DMA business before it had implemented a supervisory system reasonably designed to detect layering, spoofing, wash sales or pre-arranged trading by its DMA clients.[11]

28. Credit Suisse operated without reasonably designed controls and procedures notwithstanding concerns raised both externally and internally in 2012 and 2013 regarding a need for surveillance tools for certain potentially manipulative trading.

---

[8] Although the firm employed a pre-market surveillance tool to detect executions by DMA clients that marked the open, the tool did not monitor for unexecuted or cancelled orders potentially used to influence the price of the security in pre-market trading.

[9] The firm began testing these tools and the spoofing and layering tools in Europe in 2012.

[10] Although Compliance personnel received relevant training and began to review output from spoofing, layering, wash sales and pre-arranged trading surveillances when they were implemented in October and November 2013 (and amended through May 2014 as described *supra*), the firm did not update its U.S. Equities Surveillance Manual to describe those tools until March 2014.

[11] By at least 2011, Credit Suisse Group had begun a global project to enhance its trade surveillance tools worldwide, including its anti-manipulation controls. Testing and implementation of these surveillances began in Europe and Asia. In October 2013, the firm began implementing those tools in the U.S.

For example, regulators had highlighted post-trade monitoring for manipulative conduct as necessary to a broker-dealer's compliance program. In both its 2012 and 2013 Priorities Letters, dated January 31, 2012 and January 11, 2013, respectively, FINRA specifically stated that market access providers must have post-trade surveillance in place to identify potentially manipulative trading such as wash sales, marking, spoofing and layering.[12]

29. Additionally, between September 2012 and February 2013, Client A personnel contacted Credit Suisse on numerous occasions regarding potential wash sales and layering trades executed by Client A on behalf of its client, which eventually became Client B.[13] Credit Suisse did not adequately respond to Client A's concerns. Client A specifically asked whether Credit Suisse was monitoring for layering, pre-arranged trading and wash sales by DMA clients. Client A continued to route orders through Credit Suisse from Client B and continued to question whether Credit Suisse was monitoring the order flow when Client A detected potentially manipulative trading by Client B. While there were gaps in its anti-manipulation controls, later in 2013, Credit Suisse onboarded Client B as a DMA client.

30. In 2012 and 2013, Credit Suisse conducted an internal trade surveillance audit that found limitations in the firm's surveillance procedures. The final audit report recommended that the firm implement new surveillance tools to ensure that high risk businesses and locations were covered sufficiently. While the new tools were being developed, the report further stated that local compliance supervisors should be able to demonstrate that they have satisfactory trade surveillance management information.

31. In January 2014, FINRA expressed to Credit Suisse its concerns about the firm's supervision of its market access clients, its regulatory risk management controls, its ability to detect and prevent potentially violative activity, and its supervisory procedures in connection with the market access it provides. Additionally, FINRA identified Client A and Client B as being of particular concern. Despite the concerns raised by FINRA, Credit Suisse did not terminate Client A until May 2014 and Clients B and C until July 2014.

32. The acts, practices and conduct described in paragraphs 12 through 31 constitute a violation of Rule 15c3-5(b) and (c)(2)(iv) (for conduct on or after July 14, 2011) and BYX Rules 3.1 and 5.1.

---

[12] FINRA's 2010 and 2011 Priorities Letters and the SEC's Office of Compliance Inspections and Examinations letter, dated September 29, 2011, also reminded firms of their obligations to monitor their DMA clients for potentially manipulative conduct more generally.

[13] At the time of the correspondence, Client B was not yet a Credit Suisse client, it was only a client of Client A. However, Client B was routing its DMA orders to Client A, which then routed the orders through Credit Suisse's LLDMA desk.

Credit Suisse's Pre-Trade Controls Were Not Reasonably Designed to Prevent Erroneous Orders

33. From July 2011 through August 2016, the firm did not establish, document, and maintain risk management controls and supervisory procedures that were reasonably designed to prevent the entry of erroneous orders. During this period, Credit Suisse's Rule 15c3-5 erroneous order controls for its clients consisted primarily of a duplicative order check, a price tolerance control, a maximum single order share quantity ("SOQ") control, a maximum single order notional value ("SOV") control and a single order maximum percentage of average daily volume ("Max % of ADV") control, which were designed to prevent orders that exceeded specific limits from entering the market. Although the firm applied varying thresholds for each client, certain thresholds set for some clients were set at such high levels that the controls were not reasonably designed to prevent erroneous orders from entering the market, absent some other relevant risk management control. As a result, Credit Suisse sent numerous erroneous orders to exchanges.

Order-by-Order Size Controls

34. For certain clients routing orders to BYX, the firm assigned SOQ control limits ranging from 250,000 to 2,000,000 shares, SOV control limits from $10 million to $50 million and Max % of ADV control limits of 15% to 300%. The SOQ, SOV and the Max % of ADV controls were unreasonably high to be effective for some clients, absent some other relevant risk management control. Thus, the controls were not reasonably designed to prevent the entry of erroneous orders for market access clients.

35. Furthermore, the firm did not accurately document the nature of its controls in its books and records as required by Rule 15c3-5(b). For example, the firm did not document either that the Max % of ADV control described above was a soft block or the processes that firm personnel would need to follow to operate the soft blocks.

Price Controls

36. Although the firm's smart order router ("SOR") generally applied a 2% price tolerance control for market orders, the SOR did not apply the control to orders that were below a certain volume, below a certain price or in securities displaying wide spreads. In those circumstances, instead of the 2% price tolerance, the SOR employed formulas that used historical spread data to re-price the market orders. However, in numerous instances, the SOR used erroneous historical spread data to re-price orders with limit prices that were less restrictive than otherwise would have been selected.

37. For example, between June 2016 and August 2016, certain Credit Suisse clients entered approximately 51 market orders through the firm's SOR that the SOR then re-priced as limit orders at prices outside the NBBO by between $3-$33 (69%-195%). In the absence of a further price control such as a price tolerance control, the firm's SOR routed the erroneously priced orders to BYX, which then applied its own price collars, repricing the orders.

Equities Messaging Monitoring

38. From October 2010 through October 2012, the firm did not have a control in place to prevent the entry of a potentially excessive number of orders by certain DMA clients routed through MAGic and certain principal and institutional order flow routed through the firm's algorithmic trading system.

39. For example, on October 27, 2011, a Credit Suisse client routed between 1,916 to 2,164 IOC orders per second in one security over six separate seconds into BYX. The firm did not have a control or review in place to prevent the excessive entry of these IOC orders. Although the firm had an "Agency Quote Stuffing Report" in place that captured instances where a customer sent more than 1,700 orders in one security per minute, the report did not generate exceptions because it excluded IOC orders.

40. The acts, practices and conduct described in paragraphs 33 through 39 constitute a violation of Rule 15c3-5(b) and (c)(1)(ii) (for conduct on or after July 14, 2011) and BYX Rules 3.1 and 5.1.

Credit Suisse's Pre-Trade Controls and Procedures Regarding Credit Thresholds Were Not Reasonable

41. From November 30, 2011 through April 2015, the firm's risk management controls were not reasonably designed with respect to certain pre-set credit thresholds.

42. Specifically, the firm set a default credit limit of $250 million for every DMA client during onboarding without considering the individual client's financial condition, business, trading patterns and other matters. Additionally, although the firm's written procedures required that due diligence be performed prior to making any changes to a default limit, the firm did not perform due diligence prior to making such amendments in certain circumstances.

43. The acts, practices and conduct described in paragraphs 41 and 42 constitute a violation of Rule 15c3-5(b) and 15c3-5(c)(1)(i) and BYX Rules 3.1 and 5.1.

Credit Suisse's Annual Review Was Not Reasonable

44. During the period of July 14, 2011 through July 2014, the firm's annual review of the effectiveness of its Rule 15c3-5 risk management controls and supervisory procedures was unreasonable because it did not incorporate a reasonable review of the effectiveness of its post-trade surveillance, as required by Rule 15c3-5(c)(2)(iv).

45. The acts, practices and conduct described in paragraph 44 constitute a violation of Rule 15c3-5(b) and (e) and BYX Rules 3.1 and 5.1.

Written Supervisory Procedures ("WSPs")

46. Throughout the review period, the firm did not establish, maintain, and enforce reasonably designed WSPs to supervise its DMA activities and to assure its compliance with applicable securities laws. For example, the firm maintained a "Market Access Policy" that stated the firm would "conduct regular surveillance and systems reviews," but the Policy did not describe the reviews at all and is not supervisory in nature otherwise. Similarly, the firm's "U.S. Equity and Global Arbitrage Trading Supervisory Manual" included a Rule 15c3-5 section that also stated that the firm would "conduct regular surveillance and systems reviews," but the Manual did not provide any details about the reviews, such as who would conduct them, how often they would be conducted and in what manner.

47. The acts, practices and conduct described in paragraph 46 constitute a violation of BYX Rules 3.1 and 5.1.

SANCTIONS

48. The firm does not have any prior relevant disciplinary history specifically related to the alleged violations described above.

49. In light of the alleged rule violations described above, the firm consents to the imposition of the following sanctions:

    a. A censure;

    b. A total fine of $6,500,000 (of which $591,500 shall be paid to BYX for the violations of Rule 15c3-5 and BYX Rules 3.1 and 5.1);[14]

    c. Credit Suisse agrees to confirm in writing, within 180 days of the date of the issuance of the Notice of Acceptance of this AWC, that the firm has:

        i. Updated and/or implemented surveillances and procedures reasonably designed to monitor for potentially manipulative trading;

[14] The balance of the sanction will be paid to the self-regulatory organizations listed in footnote 1.

ii. Updated and/or implemented pre-trade controls and procedures reasonably designed to prevent erroneous orders for all firm desks and systems that provide direct market access;

iii. Updated and/or implemented pre-trade controls and procedures reasonably designed to prevent the entry of orders that exceed appropriate pre-set credit thresholds for all firm desks and systems that provide direct market access;

iv. Incorporated into its annual market access certification process an evaluation of the effectiveness of its post-trade anti-manipulation surveillances; and

v. Updated its written supervisory procedures relevant to items i. through iv.

In conjunction with the above-described confirmation, Credit Suisse also agrees to provide a written description of, or documentation reflecting, as of December 31, 2019: the desks that provide market access services to clients; the status and rationale for its existing pre-trade erroneous order and credit controls and post-trade anti-manipulation surveillances for potential spoofing, layering, wash sales, pre-arranged trading, and marking the open/close that are used by or for desks that provide market access services; procedures for setting, modifying, and enforcing credit limits applicable to market access customers; and which pre-trade controls and post-trade anti-manipulation surveillances apply to products other than equities.

The above materials shall be submitted to FINRA's Department of Enforcement, which may, upon a showing of good cause and in its sole discretion, extend the time for compliance with these provisions.

50. Acceptance of this AWC is conditioned upon acceptance of a similar agreement in related matters between the firm and Nasdaq, BX, PHLX, NYSE, NYSE Arca, NYSE American, BZX, EDGA, EDGX, NOM and FINRA. The aggregate settlement amount across all markets is $6,500,000.

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 sanction(s) upon notice that this Letter of Consent has been accepted and that such payment(s) 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 sanction(s) 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 Cboe 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: 11/18/19

Credit Suisse Securities (USA) LLC

By: [redacted]

Name: Lara Leaf

Title: Director