Required fields are shown with yellow backgrounds and asterisks.

OMB Number: 3235-0045
Estimated average burden hours per response.......38

Page 1 d	of * 81	WASHING	EXCHANGE COMM STON, D.C. 20549 orm 19b-4		File No.	* SR - 2016 - * 46 Amendments *)
5000000	by Miami International Se ant to Rule 19b-4 under the	68 - 588 - 588 - 5				
Initial *	Amendment *	Withdrawal	Section 19(b)(2) * ✓	Section	on 19(b)(3)(A) *	Section 19(b)(3)(B) *
Pilot	Extension of Time Period for Commission Action *	Date Expires *		19b-4(f19b-4(f19b-4(f)(2) a 19b-4(f)(5)	
	of proposed change pursuan n 806(e)(1) *	section 806(e)(2) *	ng, and Settlement Ad	t of 2010	Security-Based Sw to the Securities Ex Section 3C(b)	
Exhibit :		Exhibit 3 Sent As Paper D	ocument			
	e a brief description of the act		•	l is checked *).	
Provid	ct Information e the name, telephone numbed to respond to questions ar		7.0	taff of the sel	f-regulatory organiza	ation
First N	lame * Richard		Last Name * Rudol	oh		
Title *	Vice President and	Senior Counsel		Ribbs		
E-mail	* rrudolph@miami-hol	dings.com				
Teleph		Fax				
	nnt to the requirements of the ly caused this filing to be sign 11/25/2016 Richard S. Rudolph	ned on its behalf by the		(Title *)		
this form	(Name *) Clicking the button at right will dig A digital signature is as legally e, and once signed, this form cann	binding as a physical	rrudolph@	miami-holdii	ngs.com	

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 For complete Form 19b-4 instructions please refer to the EFFS website. The self-regulatory organization must provide all required information, presented in a Form 19b-4 Information * clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal Remove is consistent with the Act and applicable rules and regulations under the Act. The Notice section of this Form 19b-4 must comply with the guidelines for publication Exhibit 1 - Notice of Proposed Rule Change * in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Add Remove View Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3) The Notice section of this Form 19b-4 must comply with the guidelines for publication **Exhibit 1A- Notice of Proposed Rule** in the Federal Register as well as any requirements for electronic filing as published Change, Security-Based Swap Submission, by the Commission (if applicable). The Office of the Federal Register (OFR) offers or Advance Notice by Clearing Agencies * guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO] -xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3) Exhibit 2 - Notices, Written Comments, Copies of notices, written comments, transcripts, other communications. If such Transcripts, Other Communications documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G. Remove View Add Exhibit Sent As Paper Document Exhibit 3 - Form, Report, or Questionnaire Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is Add Remove View referred to by the proposed rule change. Exhibit Sent As Paper Document The full text shall be marked, in any convenient manner, to indicate additions to and **Exhibit 4 - Marked Copies** deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit Add View Remove the staff to identify immediately the changes made from the text of the rule with which it has been working. The self-regulatory organization may choose to attach as Exhibit 5 proposed changes **Exhibit 5 - Proposed Rule Text** to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part Add Remove View of the proposed rule change. If the self-regulatory organization is amending only part of the text of a lengthy Partial Amendment proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

SR-MIAX-2016-46 Page 3 of 81

1. Text of the Proposed Rule Change

(a) Miami International Securities Exchange, LLC ("MIAX" or "Exchange"), pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² proposes to amend Exchange Rule 515A, MIAX Price Improvement Mechanism ("PRIME") and PRIME Solicitation Mechanism.

Notice of the proposed rule change for publication in the <u>Federal Register</u> is attached hereto as <u>Exhibit 1</u>, data requested by the Securities and Exchange Commission ("Commission") is attached hereto as <u>Exhibit 3</u>, and the text of the proposed rule change is attached hereto as <u>Exhibit 5</u>.

- (b) Not applicable.
- (c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by the Chief Executive Officer of the Exchange pursuant to authority delegated by the MIAX Board of Directors on December 10, 2015.

Exchange staff will advise the Board of Directors of any action taken pursuant to delegated authority. No other action by the Exchange is necessary for the filing of the proposed rule change.

Questions and comments on the proposed rule change may be directed to Richard S. Rudolph, Vice President and Senior Counsel, at (609) 897-1484

¹⁵ U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

SR-MIAX-2016-46 Page 4 of 81

3. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis</u> for, the Proposed Rule Change

a. <u>Purpose</u>

The Exchange proposes to adopt new Rule 515A(a)(1)(iii) to state that, with respect to Agency Orders (as defined below) that have a size of less than 50 contracts, if at the time of receipt of the Agency Order, the National Best Bid and Offer ("NBBO") has a bid/ask differential of \$0.01, the System³ will reject the Agency Order. The Exchange also proposes to make permanent a pilot program that allows orders of less than 50 contracts or 500 mini-option contracts to initiate a PRIME Auction (the "Pilot"), as described below.

Background

PRIME is a process by which a Member may electronically submit for execution an order it represents as agent ("Agency Order") against principal interest and/or an Agency Order against solicited interest. The Member that submits the Agency Order (the "Initiating Member") agrees to guarantee the execution of the Agency Order by submitting a contra-side order representing principal interest or solicited interest ("Contra-side Order"). When the Exchange receives a properly designated Agency Order for Auction processing, a Request for Responses ("RFR") detailing the option, side, size, and initiating price will be sent to all subscribers of the Exchange's data feeds. Members may submit responses to the RFR (specifying prices and sizes). RFR responses can be either an Auction or Cancel ("AOC") order or an AOC eQuote. 4

Originally, for Agency Orders for less than 50 standard option contracts or 500 minioption contracts, the Initiating Member was required to stop the entire Agency Order as principal or with a solicited order at the better of the NBBO price improved by a \$0.01 increment or the

The term "System" means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

See Exchange Rule 515A(a)(2)(i)(D).

SR-MIAX-2016-46 Page 5 of 81

Agency Order's limit price (if the order is a limit order). In addition, to initiate the PRIME Auction for auto-match submissions, the Initiating Member was required to stop the Agency Order for less than 50 standard option contracts or 500 mini-option contracts at the better of the NBBO price improved by a \$0.01 increment or the Agency Order's limit price.

In November 2014, MIAX filed to establish a pilot program to allow orders of less than 50 contracts or 500 mini-option contracts to initiate a PRIME Auction (the "Pilot"). The Pilot allows Agency Orders of any size to initiate a PRIME Auction on MIAX at a price that is at or better than the NBBO. The Exchange has extended the Pilot several times, and the Pilot is currently set to expire January 18, 2017. The Exchange is proposing to make the Pilot permanent, with one modification, as described below.

Proposal

The Exchange is proposing to adopt new Rule 515A(a)(1)(iii) upon the expiration of the current Pilot to establish on a permanent basis that, with respect to Agency Orders that have a size of less than 50 contracts, if at the time of receipt of the Agency Order, the NBBO has a bid/ask differential of \$0.01,⁷ the System will reject the Agency Order. Agency Orders with a size of under 50 contracts will be accepted and processed by the System when the NBBO bid/ask differential is greater than \$0.01, and all Agency Orders with a size of 50 contracts or greater will be accepted and processed by the System, regardless of the NBBO bid/ask differential.

See Securities Exchange Act Release No. 73590 (November 13, 2014), 79 FR 68919 (November 19, 2014) (SR-MIAX-2014-56).

See Securities Exchange Act Release No. 78265 (July 8, 2016), 81 FR 45578 (July 14, 2016)(SR-MIAX-2016-19).

Currently, if the market is locked or crossed as defined in Exchange Rule 1402 for the option, the Agency Order will be rejected by the System prior to initiating an Auction or a Solicitation Auction. See Exchange Rule 515A, Interpretations and Policies .09. The Exchange will continue to reject Agency Orders, regardless of their size, in this situation.

SR-MIAX-2016-46 Page 6 of 81

Additionally, the Exchange is proposing to delete Interpretations and Policies .08 to Rule 515A. Interpretations and Policies .08 relates to the Pilot, and it states that the minimum size requirement for PRIME Auctions to start at the NBBO is subject to a Pilot Program ending January 18, 2017. Accordingly, the Exchange will continue after that date to accept and process Agency Orders of any size at the NBBO, except when the Agency Order is for a size of less than 50 contracts and the NBBO has a bid/ask differential of \$0.01, in which case the System will reject the Agency Order. It also states that the Exchange will submit certain data to the Commission during the Pilot. Because the Pilot is being made permanent (and there is no "Pilot"), the Exchange will no longer submit the referenced data.

The purpose of providing the referenced data was to provide supporting evidence that, among other things, there is meaningful competition for all size orders within the PRIME, that there is significant price improvement for all orders executed through the PRIME, and that there is an active and liquid market functioning on the Exchange outside of the PRIME.

The Exchange has analyzed this data and believes that there has been meaningful competition for all size orders within the PRIME Auction process, regardless of the size of the order or the bid/ask differential of the NBBO. Specifically from July, 2015 through January, 2016, there were a total of 961,152 PRIME Auctions on MIAX, which included more than 2,691,000 participants, for an average of 2.8 participants per PRIME Auction. Market Makers and other participants have submitted competitive bids and offers during the Response Time Interval and have shown interest in participating in trades stemming from PRIME Auctions, and

See Exhibit 3 attached hereto.

SR-MIAX-2016-46 Page 7 of 81

the Exchange believes that the current allocation algorithm⁹ at multiple execution prices or at a single price supports competitive bidding and offering.

The Exchange also believes that the data show that there is an active and liquid market functioning on the Exchange outside of the PRIME.¹⁰ Competitive bidding and offering occurs outside of the PRIME and participants can submit bids/offers at improved prices or join a bid or offer (thus improving liquidity at that price) regardless of the bid/ask differential of the NBBO.

While the Exchange continues to believe that opportunities remain for price improvement of Agency Orders with a size of less than 50 contracts when the NBBO has a bid/ask differential of \$0.01 (e.g., because market conditions may change during the PRIME Auction), 11 the data have not demonstrated significant price improvement in this narrow circumstance, as indicated in the following table:

After Priority Customer interest at a given price point has been satisfied, remaining contracts are allocated in accordance with the priority rules set forth in Rule 515A(a)(2)(iii).

From July, 2015 through January, 2016, the Exchange executed 7,449,818 transactions for a total of 92,706,999 contracts outside of the PRIME. The Exchange believes that this represents an active and liquid market functioning on the Exchange outside of the PRIME.

For example, assume the NBBO is \$1.00 bid, \$1.01 offer and an Agency Order is submitted into MIAX PRIME to buy 20 contracts at \$1.01. The Exchange believes that there is still a chance, however slight, that during the Response Time Interval the offer price could change to \$1.00, and the Agency Order, while guaranteed an execution at \$1.01, could buy 20 contracts at \$1.00.

SR-MIAX-2016-46 Page 8 of 81

PRIME Trades for Orders of Less Than 50 Contracts with NBBO Spread of \$0.01 (5/1 – 10/25/2016):

Total Number of Trades	2,383,204	Total Number of Contracts	11,950,538
Trades Receiving Price Improvement:	17,179	Contracts Receiving Price Improvement:	154,338
Percent of Trades Receiving Improvement	0.72%	Percent of Contracts Receiving Improvement	1.29%

The Exchange does believe, however, that based on the data there is significant price improvement, and significant opportunity for price improvement, for all Agency Orders submitted when the NBBO bid/ask differential is greater than \$0.01. The data attached reflect an average price improvement of \$0.045 per contract for all contracts executed in PRIME Auctions, regardless of the size of the Agency Order (i.e., less than 50 contracts or greater than 50 contracts). The maximum price improvement for any order can only be \$0.01 per contract when the NBBO bid/ask differential is \$0.01; the overall average price improvement, which is elevated to \$0.045 per contract when considering all NBBO bid/ask differentials (i.e., including where the NBBO bid/ask differential is \$0.02 or higher) reflects significant price improvement and opportunity for price improvement when the NBBO bid/ask differential is greater than \$0.01 for orders of all sizes.

Moreover, the Exchange believes that, with respect to Agency Orders with a size of 50 contracts or greater, a PRIME Auction provides not only the opportunity for price improvement, but also a legitimate value proposition in certainty of execution. Continuing to allow PRIME Auctions to be initiated by Agency Orders with a size of 50 contracts or greater increases the

See Exhibit 3 attached hereto.

SR-MIAX-2016-46 Page 9 of 81

opportunity for executions of larger size orders. ¹³ For example, although the NBBO may have an associated size of 50 contracts, those 50 contracts at the best price may be fragmented across several exchanges (e.g., five exchanges disseminating the NBBO price for 10 contracts each). There is no guarantee that a participant wishing to buy or sell 50 contracts can access all of the posted liquidity in a fragmented marketplace in which (in this example) often only 10 contracts are executed on a particular exchange at the NBBO price, and thereafter the other 40 contracts are adjusted to inferior prices on the other exchanges before executing. The Exchange believes that maintaining the PRIME Auction for Agency Orders with a size of 50 contracts or greater when the bid/ask differential at the NBBO is \$0.01 enables consolidated size discovery and provides certainty of larger sized executions. The Exchange believes that this represents an efficient way for market participants to access liquidity for larger sized orders. Therefore, the Exchange believes that it is appropriate to continue to support the acceptance of Agency Orders with a size of 50 contracts or greater, regardless of the bid/ask differential of the NBBO, even at \$0.01, both now and in the future.

Based on its review of the data, the Exchange believes that there is meaningful competition for all size orders within the PRIME, that there is significant price improvement for all orders executed through the PRIME (except for Agency Orders with a size of less than 50 contracts that are entered into the PRIME Auction when the NBBO has a bid/ask differential of \$0.01), and that there is an active and liquid market functioning on the Exchange outside of the PRIME. Accordingly, the Exchange proposes to adopt Rule 515A(a)(1)(iii) upon the expiration of the Pilot to establish on a permanent basis that, with respect to Agency Orders that have a size

According to the Options Clearing Corporation ("OCC"), for the year-to-date through September 2016 there were 130, 573,030 transactions for a total of 1,473,152,154 contracts traded, for an average execution size of 11.3 contracts.

SR-MIAX-2016-46 Page 10 of 81

of less than 50 contracts, if at the time of receipt of the Agency Order, the NBBO has a bid/ask differential of \$0.01, the System will reject the Agency Order.

b. Statutory Basis

MIAX believes that its proposed rule change is consistent with Section 6(b) of the Act¹⁴ in general, and furthers the objectives of Section 6(b)(5) of the Act¹⁵ in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule change fosters cooperation and coordination with persons engaged in facilitating transactions in securities because, based on its communication with the Commission, the Exchange believes that all U.S. options exchanges will file similar proposals to address the handling of Agency Orders received with a size of under 50 contracts when the NBBO has a bid/ask differential of \$0.01.

The proposed rule change removes impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest by way of meaningful competition for all size orders within the PRIME Auction process, regardless of the size of the order or the bid/ask differential of the NBBO. Further, with respect to Agency Orders with a size of 50 contracts or greater, the PRIME Auction process perfects the mechanisms of a free and open market and a national market system by providing meaningful price improvement for orders executed through PRIME, regardless of the NBBO bid/ask

¹⁴ 15 U.S.C. 78f(b).

¹⁵ U.S.C. 78f(b)(5).

SR-MIAX-2016-46 Page 11 of 81

differential. Additionally, the proposal protects investors and the public interest by showing that there is an active and liquid market functioning on the Exchange outside of the PRIME.

Furthermore, the proposed rule change removes impediments to and perfects the mechanisms of a free and open market and a national market system by establishing the new manner in which the Exchange will handle Agency Orders received with a size of under 50 contracts when the NBBO has a bid/ask differential of \$0.01.

4. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The PRIME Auction enables the Exchange to compete for order flow with other exchanges that have similar price improvement mechanisms in place. As stated above, the Exchange believes that there is meaningful competition in PRIME Auctions for all size orders, there are opportunities for significant price improvement for orders executed through PRIME, and that there is an active and liquid market functioning on the Exchange outside of PRIME.

The Exchange believes that approving the Pilot on a permanent basis will not significantly impact competition, as it will continue to accept and process Agency Orders for potential price improvement except in the very limited circumstance where the Agency Order is for a size of less than 50 contracts and the NBBO bid/ask differential is \$0.01.

5. <u>Self-Regulatory Organization's Statement on Comments on the Proposed Rule</u> <u>Change Received from Members, Participants, or Others</u>

No written comments were either solicited or received.

6. Extension of Time Period for Commission Action

Not applicable.

SR-MIAX-2016-46 Page 12 of 81

7. <u>Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)</u>

Not applicable.

8. <u>Proposed Rule Change Based on Rules of Another Self-Regulatory Organization</u> or of the Commission

The Exchange believes that the proposed rule change is based, in part, on proposed rules to be submitted for Commission approval by all U.S. options exchanges, which will become operative upon the expiration of the Pilot.

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act
Not applicable.

10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

- 1. Notice of proposed rule for publication in the Federal Register.
- 3. Data requested by the Commission.
- 5. Text of proposed rule change.

SR-MIAX-2016-46 Page 13 of 81

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION (Release No. 34-; File No. SR-MIAX-2016-46)

November , 2016

Self-Regulatory Organizations: Notice of Filing of a Proposed Rule Change by Miami International Securities Exchange LLC to Amend Rule 515A, MIAX Price Improvement Mechanism ("PRIME") and PRIME Solicitation Mechanism.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² notice is hereby given that on November 25, 2016, Miami International Securities Exchange LLC ("MIAX" or "Exchange") filed with the Securities and Exchange Commission ("Commission") a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. <u>Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed</u> <u>Rule Change</u>

The Exchange proposes to amend Exchange Rule 515A, MIAX Price Improvement Mechanism ("PRIME") and PRIME Solicitation Mechanism.

The text of the proposed rule change is available on the Exchange's website at http://www.miaxoptions.com/filter/wotitle/rule_filing, at MIAX's principal office, and at the Commission's Public Reference Room.

II. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change</u>

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on

¹⁵ U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

SR-MIAX-2016-46 Page 14 of 81

the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory</u> Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to adopt new Rule 515A(a)(1)(iii) to state that, with respect to Agency Orders (as defined below) that have a size of less than 50 contracts, if at the time of receipt of the Agency Order, the National Best Bid and Offer ("NBBO") has a bid/ask differential of \$0.01, the System³ will reject the Agency Order. The Exchange also proposes to make permanent a pilot program that allows orders of less than 50 contracts or 500 mini-option contracts to initiate a PRIME Auction (the "Pilot"), as described below.

Background

PRIME is a process by which a Member may electronically submit for execution an order it represents as agent ("Agency Order") against principal interest and/or an Agency Order against solicited interest. The Member that submits the Agency Order (the "Initiating Member") agrees to guarantee the execution of the Agency Order by submitting a contra-side order representing principal interest or solicited interest ("Contra-side Order"). When the Exchange receives a properly designated Agency Order for Auction processing, a Request for Responses ("RFR") detailing the option, side, size, and initiating price will be sent to all subscribers of the Exchange's data feeds. Members may submit responses to the RFR (specifying prices and sizes). RFR responses can be either an Auction or Cancel ("AOC") order or an AOC eQuote.

The term "System" means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

See Exchange Rule 515A(a)(2)(i)(D).

SR-MIAX-2016-46 Page 15 of 81

Originally, for Agency Orders for less than 50 standard option contracts or 500 minioption contracts, the Initiating Member was required to stop the entire Agency Order as principal
or with a solicited order at the better of the NBBO price improved by a \$0.01 increment or the
Agency Order's limit price (if the order is a limit order). In addition, to initiate the PRIME
Auction for auto-match submissions, the Initiating Member was required to stop the Agency
Order for less than 50 standard option contracts or 500 mini-option contracts at the better of the
NBBO price improved by a \$0.01 increment or the Agency Order's limit price.

In November 2014, MIAX filed to establish a pilot program to allow orders of less than 50 contracts or 500 mini-option contracts to initiate a PRIME Auction (the "Pilot"). The Pilot allows Agency Orders of any size to initiate a PRIME Auction on MIAX at a price that is at or better than the NBBO. The Exchange has extended the Pilot several times, and the Pilot is currently set to expire January 18, 2017. The Exchange is proposing to make the Pilot permanent, with one modification, as described below.

Proposal

The Exchange is proposing to adopt new Rule 515A(a)(1)(iii) upon the expiration of the current Pilot to establish on a permanent basis that, with respect to Agency Orders that have a size of less than 50 contracts, if at the time of receipt of the Agency Order, the NBBO has a bid/ask differential of \$0.01,⁷ the System will reject the Agency Order. Agency Orders with a size of under 50 contracts will be accepted and processed by the System when the NBBO bid/ask

See Securities Exchange Act Release No. 73590 (November 13, 2014), 79 FR 68919 (November 19, 2014) (SR-MIAX-2014-56).

See Securities Exchange Act Release No. 78265 (July 8, 2016), 81 FR 45578 (July 14, 2016)(SR-MIAX-2016-19).

Currently, if the market is locked or crossed as defined in Exchange Rule 1402 for the option, the Agency Order will be rejected by the System prior to initiating an Auction or a Solicitation Auction. See Exchange Rule 515A, Interpretations and Policies .09. The Exchange will continue to reject Agency Orders, regardless of their size, in this situation.

SR-MIAX-2016-46 Page 16 of 81

differential is greater than \$0.01, and all Agency Orders with a size of 50 contracts or greater will be accepted and processed by the System, regardless of the NBBO bid/ask differential.

Additionally, the Exchange is proposing to delete Interpretations and Policies .08 to Rule 515A. Interpretations and Policies .08 relates to the Pilot, and it states that the minimum size requirement for PRIME Auctions to start at the NBBO is subject to a Pilot Program ending January 18, 2017. Accordingly, the Exchange will continue after that date to accept and process Agency Orders of any size at the NBBO, except when the Agency Order is for a size of less than 50 contracts and the NBBO has a bid/ask differential of \$0.01, in which case the System will reject the Agency Order. It also states that the Exchange will submit certain data to the Commission during the Pilot. Because the Pilot is being made permanent (and there is no "Pilot"), the Exchange will no longer submit the referenced data.

The purpose of providing the referenced data was to provide supporting evidence that, among other things, there is meaningful competition for all size orders within the PRIME, that there is significant price improvement for all orders executed through the PRIME, and that there is an active and liquid market functioning on the Exchange outside of the PRIME.

The Exchange has analyzed this data and believes that there has been meaningful competition for all size orders within the PRIME Auction process, regardless of the size of the order or the bid/ask differential of the NBBO. Specifically from July, 2015 through January, 2016, there were a total of 961,152 PRIME Auctions on MIAX, which included more than 2,691,000 participants, for an average of 2.8 participants per PRIME Auction. Market Makers and other participants have submitted competitive bids and offers during the Response Time Interval and have shown interest in participating in trades stemming from PRIME Auctions, and

⁸ See Exhibit 3 attached hereto.

SR-MIAX-2016-46 Page 17 of 81

the Exchange believes that the current allocation algorithm⁹ at multiple execution prices or at a single price supports competitive bidding and offering.

The Exchange also believes that the data show that there is an active and liquid market functioning on the Exchange outside of the PRIME.¹⁰ Competitive bidding and offering occurs outside of the PRIME and participants can submit bids/offers at improved prices or join a bid or offer (thus improving liquidity at that price) regardless of the bid/ask differential of the NBBO.

While the Exchange continues to believe that opportunities remain for price improvement of Agency Orders with a size of less than 50 contracts when the NBBO has a bid/ask differential of \$0.01 (e.g., because market conditions may change during the PRIME Auction), 11 the data have not demonstrated significant price improvement in this narrow circumstance, as indicated in the following table:

After Priority Customer interest at a given price point has been satisfied, remaining contracts are allocated in accordance with the priority rules set forth in Rule 515A(a)(2)(iii).

From July, 2015 through January, 2016, the Exchange executed 7,449,818 transactions for a total of 92,706,999 contracts outside of the PRIME. The Exchange believes that this represents an active and liquid market functioning on the Exchange outside of the PRIME.

For example, assume the NBBO is \$1.00 bid, \$1.01 offer and an Agency Order is submitted into MIAX PRIME to buy 20 contracts at \$1.01. The Exchange believes that there is still a chance, however slight, that during the Response Time Interval the offer price could change to \$1.00, and the Agency Order, while guaranteed an execution at \$1.01, could buy 20 contracts at \$1.00.

SR-MIAX-2016-46 Page 18 of 81

PRIME Trades for Orders of Less Than 50 Contracts with NBBO Spread of \$0.01 (5/1 – 10/25/2016):

Total Number of Trades	2,383,204	Total Number of Contracts	11,950,538
Trades Receiving Price Improvement:	17,179	Contracts Receiving Price Improvement:	154,338
Percent of Trades Receiving Improvement	0.72%	Percent of Contracts Receiving Improvement	1.29%

The Exchange does believe, however, that based on the data there is significant price improvement, and significant opportunity for price improvement, for all Agency Orders submitted when the NBBO bid/ask differential is greater than \$0.01. The data attached reflect an average price improvement of \$0.045 per contract for all contracts executed in PRIME Auctions, regardless of the size of the Agency Order (i.e., less than 50 contracts or greater than 50 contracts). The maximum price improvement for any order can only be \$0.01 per contract when the NBBO bid/ask differential is \$0.01; the overall average price improvement, which is elevated to \$0.045 per contract when considering all NBBO bid/ask differentials (i.e., including where the NBBO bid/ask differential is \$0.02 or higher) reflects significant price improvement and opportunity for price improvement when the NBBO bid/ask differential is greater than \$0.01 for orders of all sizes.

Moreover, the Exchange believes that, with respect to Agency Orders with a size of 50 contracts or greater, a PRIME Auction provides not only the opportunity for price improvement, but also a legitimate value proposition in certainty of execution. Continuing to allow PRIME Auctions to be initiated by Agency Orders with a size of 50 contracts or greater increases the

See Exhibit 3 attached hereto.

SR-MIAX-2016-46 Page 19 of 81

opportunity for executions of larger size orders. ¹³ For example, although the NBBO may have an associated size of 50 contracts, those 50 contracts at the best price may be fragmented across several exchanges (e.g., five exchanges disseminating the NBBO price for 10 contracts each). There is no guarantee that a participant wishing to buy or sell 50 contracts can access all of the posted liquidity in a fragmented marketplace in which (in this example) often only 10 contracts are executed on a particular exchange at the NBBO price, and thereafter the other 40 contracts are adjusted to inferior prices on the other exchanges before executing. The Exchange believes that maintaining the PRIME Auction for Agency Orders with a size of 50 contracts or greater when the bid/ask differential at the NBBO is \$0.01 enables consolidated size discovery and provides certainty of larger sized executions. The Exchange believes that this represents an efficient way for market participants to access liquidity for larger sized orders. Therefore, the Exchange believes that it is appropriate to continue to support the acceptance of Agency Orders with a size of 50 contracts or greater, regardless of the bid/ask differential of the NBBO, even at \$0.01, both now and in the future.

Based on its review of the data, the Exchange believes that there is meaningful competition for all size orders within the PRIME, that there is significant price improvement for all orders executed through the PRIME (except for Agency Orders with a size of less than 50 contracts that are entered into the PRIME Auction when the NBBO has a bid/ask differential of \$0.01), and that there is an active and liquid market functioning on the Exchange outside of the PRIME. Accordingly, the Exchange proposes to adopt Rule 515A(a)(1)(iii) upon the expiration of the Pilot to establish on a permanent basis that, with respect to Agency Orders that have a size

According to the Options Clearing Corporation ("OCC"), for the year-to-date through September 2016 there were 130, 573,030 transactions for a total of 1,473,152,154 contracts traded, for an average execution size of 11.3 contracts.

SR-MIAX-2016-46 Page 20 of 81

of less than 50 contracts, if at the time of receipt of the Agency Order, the NBBO has a bid/ask differential of \$0.01, the System will reject the Agency Order.

2. Statutory Basis

MIAX believes that its proposed rule change is consistent with Section 6(b) of the Act¹⁴ in general, and furthers the objectives of Section 6(b)(5) of the Act¹⁵ in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule change fosters cooperation and coordination with persons engaged in facilitating transactions in securities because, based on its communication with the Commission, the Exchange believes that all U.S. options exchanges will file similar proposals to address the handling of Agency Orders received with a size of under 50 contracts when the NBBO has a bid/ask differential of \$0.01.

The proposed rule change removes impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest by way of meaningful competition for all size orders within the PRIME Auction process, regardless of the size of the order or the bid/ask differential of the NBBO. Further, with respect to Agency Orders with a size of 50 contracts or greater, the PRIME Auction process perfects the mechanisms of a free and open market and a national market system by providing meaningful price improvement for orders executed through PRIME, regardless of the NBBO bid/ask

¹⁵ U.S.C. 78f(b).

¹⁵ U.S.C. 78f(b)(5).

SR-MIAX-2016-46 Page 21 of 81

differential. Additionally, the proposal protects investors and the public interest by showing that there is an active and liquid market functioning on the Exchange outside of the PRIME.

Furthermore, the proposed rule change removes impediments to and perfects the mechanisms of a free and open market and a national market system by establishing the new manner in which the Exchange will handle Agency Orders received with a size of under 50 contracts when the NBBO has a bid/ask differential of \$0.01.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The PRIME Auction enables the Exchange to compete for order flow with other exchanges that have similar price improvement mechanisms in place. As stated above, the Exchange believes that there is meaningful competition in PRIME Auctions for all size orders, there are opportunities for significant price improvement for orders executed through PRIME, and that there is an active and liquid market functioning on the Exchange outside of PRIME.

The Exchange believes that approving the Pilot on a permanent basis will not significantly impact competition, as it will continue to accept and process Agency Orders for potential price improvement except in the very limited circumstance where the Agency Order is for a size of less than 50 contracts and the NBBO bid/ask differential is \$0.01.

C. <u>Self-Regulatory Organization's Statement on Comments on the Proposed Rule</u>
<u>Change Received from Members, Participants, or Others</u>

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action
Within 45 days of the date of publication of this notice in the Federal Register or
within such longer period (i) as the Commission may designate up to 90 days of such date

SR-MIAX-2016-46 Page 22 of 81

if it finds such longer period to be appropriate and publishes its reasons for so finding or

(ii) as to which the Exchange consents, the Commission shall: (a) by order approve or

disapprove such proposed rule change, or (b) institute proceedings to determine whether the

proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act.

Comments may be submitted by any of the following methods:

Electronic comments:

Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml);
or

☐ Send an e-mail to rule-comments@sec.gov. Please include File Number SR-MIAX-2016-46 on the subject line.

Paper comments:

☐ Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-MIAX-2016-46. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (http://www.sec.gov/rules/sro.shtml).

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be

SR-MIAX-2016-46 Page 23 of 81

available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-MIAX-2016-46 and should be submitted on or before [insert date 21 days from publication in the <u>Federal Register</u>]. For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹⁶

Brent J. Fields Secretary

¹⁶

SR-MIAX-2016-46 Page 24 of 81

EXHIBIT 3

Data Provided Periodically to the Commission Pursuant to MIAX Rule 515A.08

Pursuant to MIAX Rule 515A.08, the Exchange has periodically submitted certain data, as required by the Commission, to provide supporting evidence that, among other things, there is meaningful competition for all size orders and that there is an active and liquid market functioning on the Exchange outside of the MIAX Price Improvement Mechanism ("PRIME"). The data below has been submitted to the Commission and has been used in support of SR-MIAX-2016-46.

SR-MIAX-2016-46 Page 25 of 81

PRIME Summary January 2015

Order<50Ctx @NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	17,620	2,015		-					-				19,635	4.0224	44.54%	34.96%
	'0.02'	87,116	6,862	154		383		870						94,132	3.3127	67.37%	62.70%
	'0.03'	87,145	10,585	816	62		(3)			81			*	98,608	3.3903	62.31%	56.56%
	'0.04'	70,645	14,176	1,990	328	36		(4)						87,175	3.433	58.78%	52.65%
	'0.05'	72,206	25,760	9,012	3,488	1,128	249	5	2	20	20		148	111,848	3.4705	52.04%	45.39%
	'>.05, <=.10'	205,169	88,733	42,331	20,311	10,315	5,548	2,665		27	- 12	102	190	375,072	3.4039	47.25%	41.28%
	'>.10, <=.20'	156,123	79,803	61,387	38,940	22,979	17,009	28,676	2,499		-	1000		407,416	3.3079	38.42%	33.56%
	'>.20, <=.30'	57,963	27,198	24,843	18,902	15,486	11,955	27,832	9,869	407			(1802)	194,455	3.1905	33.26%	29.39%
	'>.30, <=.40'	30,387	10,435	11,263	9,270	7,738	6,203	18,893	10,670	1,744	123		196	106,726	3.1197	30.53%	28.47%
	'>.40, <=.50'	17,068	5,998	5,239	5,240	4,542	3,908	12,058	8,485	2,144	600	75	346	65,357	3.0439	29.28%	26.52%
	'>.50'	38,049	9,497	9,456	9,632	7,967	7,778	27,902	27,555	13,164	7,570	5,903	7,432	171,905	2.9832	25.68%	22.96%

SR-MIAX-2016-46 Page 26 of 81

PRIME Summary January 2015

Order>=50Ctx @NBBO Customer

Im	ni	OW	A	me	m	۲

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	22,208	1,631		(#(*	*	*	+1		(*8)	23,839	4.3725	38.35%	39.67%
	'0.02'	73,706	5,293	73		u.		- 2	-	- 2			220	79,072	3.4838	62.22%	62.08%
	'0.03'	63,939	9,345	774	37		-			- 2				74,095	3.5404	54.24%	54.28%
	'0.04'	48,564	9,252	1,198	211	79				- 5			5.55	59,304	3.529	51.44%	51.10%
	'0.05'	44,657	16,901	5,350	1,056	642	190	-	, ×		*	•	-	68,796	3.5196	42.44%	43.51%
	'>.05, <=.10'	105,422	53,119	23,693	12,539	4,915	2,431	926	2	- 2	- 27	20	1820	203,045	3.5016	37.51%	37.77%
	'>.10, <=.20'	66,687	35,048	24,140	18,131	11,486	6,956	12,663	1,172		. 3			176,283	3.3517	31.48%	31.31%
	'>.20, <=.30'	20,751	10,522	9,809	8,018	5,441	4,493	10,683	2,945	30	- 33	-	120	72,692	3.2609	27.83%	26.93%
	'>.30, <=.40'	9,169	3,040	3,404	2,965	2,748	1,127	3,856	2,239	252	-	- 1	0.000	28,800	3.0428	26.41%	26.27%
	'>.40, <=.50'	5,715	1,349	1,628	1,541	1,105	1,093	4,264	1,993	562	250			19,500	3.1047	27.62%	26.94%
	'>.50'	10,181	2,139	2,870	3,111	2,173	1,330	6,559	5,873	2,686	1,138	1,010	1,215	40,285	3.0284	23.95%	25.02%

SR-MIAX-2016-46 Page 27 of 81

PRIME Summary January 2015

Order<50Ctx !@NBBO Customer

		em	

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	A107715039 67	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	212,176	2,639	4						*	(m)		ж	214,819	3.0876	74.09%	71.07%
	'0.02'	165,142	5,400	222	30	- 6		-	- 2	15	-	~	125	170,794	3.4105	66.39%	60.91%
	'0.03'	77,722	8,736	515	108	1.5		2€8	153					87,081	3.2891	65.07%	58.84%
	'0.04'	40,172	8,177	1,031	208	74		-		*			×	49,662	3.1753	62.85%	56.76%
	'0.05'	37,751	9,592	2,714	418	114	98		. 2	, 12 J	_ 2	9	34	50,687	3.1168	62.31%	55.75%
	'>.05, <=.10'	57,844	19,210	9,248	3,706	1,583	598	378	12		-			92,579	3.0405	56.57%	50.19%
	'>.10, <=.20'	30,091	9,480	7,487	4,930	3,361	2,840	3,631	267		- 14		3	62,087	2.9957	49.02%	45.41%
	'>.20, <=.30'	10,390	2,730	2,028	2,037	1,353	1,291	3,637	866	19				24,351	2.9346	46.74%	44.21%
	'>.30, <=.40'	4,027	1,039	1,030	841	781	782	1,857	1,010	100	5		38	11,472	2.8217	43.13%	37.71%
	'>.40, <=.50'	2,792	481	529	496	422	255	1,159	832	121	36	1		7,124	2.6681	48.19%	44.58%
	'>.50'	5,552	759	679	659	521	488	2,074	2,116	881	534	210	595	15,068	2.5048	46.28%	42.22%

SR-MIAX-2016-46 Page 28 of 81

PRIME Summary January 2015

Order>=50Ctx !@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	1.00		>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	188,491	1,249	2	-	-	-	84		-		-	-	189,740	2.9874	72.23%	73.24%
	'0.02'	133,883	4,117	136	- 5	7	171	-		- 7	-	-	-	138,136	3.386	58.68%	58.73%
	'0.03'	60,745	7,346	491	· ·	*		-		-		-	-	68,582	3.352	53.61%	53.45%
	'0.04'	24,961	5,428	271	40		50	- 2	-	- 1	-		- 2	30,750	3.2546	52.00%	51.77%
	'0.05'	20,852	6,153	844	434	100	-	-	-	-	-	-	- 5	28,383	3.117	50.89%	50.69%
	'>.05, <=.10'	30,621	9,209	3,993	970	363	100	50		9	-	-	-	45,306	2.9012	48.91%	49.23%
	'>.10, <=.20'	11,649	3,610	2,380	1,619	1,348	1,040	1,611	12	·				23,269	2.8021	44.70%	41.83%
	'>.20, <=.30'	3,596	1,318	792	601	362	584	998	271	-	(*·	-	*	8,522	2.6476	40.16%	41.89%
	'>.30, <=.40'	846	188	290	96		275	564	242		120	- 2	-	2,501	2.2069	36.45%	32.83%
	'>.40, <=.50'	1,117	384	30	189	18	122	368	116		15	-	- 5	2,359	2.4074	47.73%	47.14%
	'>.50'	1,145	211	190	106	190	150	275	703	436	14	-	186	3,606	2.5111	37.10%	37.10%

SR-MIAX-2016-46 Page 29 of 81

PRIME Summary January 2015

Order<50Ctx @NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20		>.30, <=.40		>.50	Total Contracts Traded	Average Number of Participants	order	Average Percent of contracts initiator receives
Spread	'0.05'	24	2	62				×	-		-	- 2	*	88	3	11.43%	11.36%
	'>.05, <=.10'	62	212	94	129	13	-			72	7.	-	-	510	3.1569	7.39%	6.67%
	'>.10, <=.20'	14	76	136	63	169	79	166	13	- 6			-	716	3.1981	5.57%	1.96%
	'>.20, <=.30'	40	24	23	23	17	13	135	140	100	12	0.20	-	415	3.2055	1.35%	4.58%
	'>.30, <=.40'			•		9	2	99	109	26	4	(35)		249	3.3696	0.00%	0.00%
	'>.40, <=.50'	3			1			1	23	17	-	(@)	*	45	3.8182	18.18%	8.89%
	'>.50'		- •	15	10	3	1	23	11	19	10	3	14	109	2.8571	0.00%	0.00%

SR-MIAX-2016-46 Page 30 of 81

PRIME Summary January 2015

Order>=50Ctx @NBBO Non-Cust

m				

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10		>.20, <=.30		>,40, <=.50	1 > 50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	154	- %	-	1 2	- *	- Se	-	- 82	14	-	140	100	154	4	39.61%	39.61%
	'0.03'	50	-	-	1.75	-	-	-			-	1,77	-	50	4	40.00%	40.00%
	'0.05'	1,203	-	-:	*	-		2	-	*		140		1,203	3	62.89%	54.95%
	'>.05, <=.10'	101	-	-	-	-	1 2	2	-	-		-	-	101	1	49.50%	49.50%
	'>.40, <=.50'	-		-	77			150		•		175	-	150	2	0.00%	0.00%
	'>.50'	94	5	5	12	5	5	15	28	1.00		122		157	3	55.41%	55.41%

SR-MIAX-2016-46 Page 31 of 81

PRIME Summary January 2015

Order<50Ctx !@NBBO Non-Cust

mpro	MAR	nor		

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30			>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	68	- 2	- 6	1 2	- *		-		×	-	140	- 12	68	2.6667	79.67%	63.24%
	'0.02'	184	-	5	1 7	-			-	-	-			189	3.1333	50.54%	54.50%
	'0.03'	83	1	1	- 4	-	-	¥	-	160	-	143	(42	85	3	45.56%	75.29%
	'0.04'	30	44	-	1	-	1 2	_2	-	-		-	120	74	2.7143	55.71%	22.97%
	'0.05'	106	45	4	10	-	25		15	- 0.	- 11		-	190	2.2917	32.57%	35.79%
	'>.05, <=.10'	85	78	26	8	3	-	5	12	- 20	-	121	90	205	2.6981	25.92%	24.88%
	'>.10, <=.20'	32	9	5	7	5	4	13	2		-			77	2.8148	28.16%	44.16%
	'>.20, <=.30'	21	1	6	14	4	15	41	-	180	- 14	(4)		102	2.5789	7.89%	17.65%
	'>.30, <=.40'	3		-	1	1.5	1	5	-	130	12	-	120	10	2.25	8.33%	10.00%
	'>.40, <=.50'		-	-	- 2	-		6	- 2	- 6				6	4	0.00%	0.00%
	'>.50'	-	-	- 6	-	-	-	-	(F)	-	3	7.40	-	3	3	0.00%	0.00%

SR-MIAX-2016-46 Page 32 of 81

PRIME Summary January 2015

Order>=50Ctx !@NBBO Non-Cust

	ro			

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10		>.20, <=.30		>,40, <=.50	>.50		Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.02'	70	- 2	-	1 2		- Se	2	- 2	14		140	- 12	70	5	40.00%	40.00%
	'0.03'	444	-	-	17					-			-	444	1	50.00%	50.00%
	'0.05'	501			- 4	-	9	¥		(e)	-	-43	-	501	0.5	70.00%	47.31%
	'>.05, <=.10'		-	-	-	50	12	2	-	-	- 1	(4)	-	50	3	0.00%	0.00%
	'>.20, <=.30'	-		-	77	-	50		12	- 0	- 11	100	-	50	3	0.00%	0.00%

SR-MIAX-2016-46 Page 33 of 81

PRIME Summary February 2015

Order<50Ctx @NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participant s	order	Average Percent of contracts initiator receives
Spread	'0.01'	132,733	11,964	*	18	(*)		300		34	*		-	144,697	4.0685	44.08%	36.15%
	'0.02'	133,440	16,631	700	- 2		-	1910		- 2		120	- 1	150,771	3.7013	59.32%	53.26%
	'0.03'	103,910	20,381	1,993	160		•							126,444	3.6039	57.77%	51.34%
	'0.04'	77,655	19,297	3,289	428	32					-		- 5.	100,701	3,5903	55.33%	49.30%
	'0.05'	82,578	32,389	10,980	3,377	1,249	269			*		•	· *:	130,842	3.6441	51.12%	44.65%
	'>.05, <=.10'	201,409	87,511	42,614	18,454	8,062	3,893	1,919		*		•	790	363,862	3.5121	46.84%	41.07%
	'>.10, <=.20'	140,388	73,100	51,903	29,113	17,646	11,643	18,556	1,533	- 8	- 2		- 12	343,882	3.3742	38.33%	34.23%
	'>.20, <=.30'	52,728	23,325	20,512	14,319	11,453	7,953	15,017	5,572	132				151,011	3.1936	34.60%	31.50%
	'>.30, <=.40'	26,981	10,416	8,853	7,208	5,380	4,775	10,412	4,481	859	42		850	79,407	3.0855	34.23%	31.51%
	'>.40, <=.50'	14,825	4,888	4,278	3,770	3,269	2,854	7,225	3,399	827	186	30	9.49	45,551	3.0497	32.29%	30.16%
	'>.50'	32,502	8,198	7,957	7,286	6,034	6,100	18,936	16,564	7,537	4,575	3,153	3,448	122,290	2.9717	28.21%	26.32%

SR-MIAX-2016-46 Page 34 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	131,167	9,739		* .		7	*	*	()+()	*	*	*	140,906	4.6843	38.71%	39.19%
	'0.02'	107,052	11,340	385	- 4	340	- 4		- 4	-	- 2	5-23	7	118,777	3.9945	54.31%	53.55%
	'0.03'	65,260	10,402	844		(#)	75	351	2 7 8	8.5	- 5	136		76,506	3.7193	53.72%	53.43%
	'0.04'	44,319	10,346	1,136	101		-	-			-		*	55,902	3.5951	50.18%	50.09%
	'0.05'	45,606	17,962	6,332	1,428	150		- 2	121	- /-	12	- 22	- 2	71,478	3.7848	44.06%	44.45%
	'>.05, <=.10'	104,230	44,459	19,050	8,050	4,407	1,568	330		3.55	-			182,094	3,5625	40.35%	40.94%
	'>.10, <=.20'	67,599	31,153	18,975	12,770	5,594	4,906	5,926	343	7.47	- 4	-	14	147,266	3.4066	35.43%	36.34%
	'>.20, <=.30'	21,647	8,584	7,912	5,819	3,945	3,282	5,607	1,577	50	-	-		58,423	3.2734	30.90%	30.53%
	'>.30, <=.40'	9,996	3,168	3,299	2,211	2,083	1,841	3,232	1,713	146	-		*	27,689	3.1844	31.35%	31.08%
	'>.40, <=.50'	5,375	1,308	1,408	1,004	1,050	1,027	2,097	848	126	10		-	14,253	3.0761	32.86%	30.95%
	'>.50'	8,968	1,756	1,679	1,481	1,810	1,207	4,103	3,664	1,306	683	64	60	26,781	2.9033	28.17%	29.99%

SR-MIAX-2016-46 Page 35 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	A10.77152.39 1	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	338,836	3,767	1	5	1				*	(3 4 0)		*	342,610	2.8599	74.68%	71.63%
	'0.02'	184,132	7,258	331	4	161		-	-	15		~	131	191,725	3.3646	63.57%	57.41%
	'0.03'	78,201	9,375	856	116	100	-	2€8	II-s			•		88,548	3.2811	63.20%	56.71%
	'0.04'	39,421	8,737	1,080	153	51	1	-			(*)		*	49,443	3.2121	60.66%	54.06%
	'0.05'	41,609	9,551	2,723	541	128	55	18	. 12	12	_ 22	9	- 2	54,625	3.0772	61.53%	55.11%
	'>.05, <=.10'	51,802	16,657	8,015	3,459	1,520	615	225	- 5		· **		- 11	82,293	3.0646	55.09%	49.10%
	'>.10, <=.20'	25,194	8,134	5,373	3,796	2,947	1,920	2,732	236	1	848)		¥	50,333	3.0163	49.76%	45.02%
	'>.20, <=.30'	8,782	2,060	1,920	1,413	970	833	2,391	761	10	-			19,140	2.867	49.31%	46.15%
	'>.30, <=.40'	3,645	749	621	611	567	467	1,174	644	31	2		*	8,511	2.7696	47.21%	43.56%
	'>.40, <=.50'	2,694	440	327	219	330	273	623	626	137	1	5	-	5,675	2.6074	49.88%	49.87%
	'>.50'	4,556	557	400	645	427	552	1,625	1,211	814	497	252	486	12,022	2.4979	45.32%	42.57%

SR-MIAX-2016-46 Page 36 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10				>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	252,459	2,599		-	*		546		-	120	-		255,058	2.9499	68.22%	69.47%
	'0.02'	156,062	5,062	30		-	1.05	-	- 5	-	- 50	-	7.	161,154	3.4478	55.00%	54.78%
	'0.03'	60,063	5,862	403	· ·				- 20	-	*	-	-	66,328	3.429	53.30%	54.60%
	'0.04'	25,814	4,425	1,197	30	- 12	Yes	-	27	-	- 2	- 12	ú	31,466	3.3097	52.15%	51.97%
	'0.05'	24,469	6,765	1,668	186	176				- 37	-	- 17	-	33,264	3.2112	51.80%	52.08%
	'>.05, <=.10'	28,547	6,709	2,956	949	247	117	122	-	-	2	14	*	39,647	2.8455	52.47%	51.95%
	'>.10, <=.20'	10,194	2,787	1,546	1,036	966	259	267	100		- 5	-	-5-	17,155	2.5367	50.01%	50.13%
	'>.20, <=.30'	4,121	889	654	1,251	893	367	595	268		-	-	-	9,038	2.4272	41.05%	40.40%
	'>.30, <=.40'	520	134	213	-	109	62	726	131	-	- 2	-	2	1,895	2.4615	35.98%	27.97%
	'>.40, <=.50'	1,091	57	23	67	56	52	309	107	27	15	-	-	1,762	2,4231	55.15%	59.31%
	'>.50'	1,031	62	37	112	95	(4)	375	175	12	74	-	70	2,031	2.2	53.02%	46.63%

SR-MIAX-2016-46 Page 37 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20			>,40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.04'	20	2	-	12		· 84	2	- 52	- 12		140		22	3.6667	46.67%	63.64%
	'0.05'	7	37	-	1 7	-					-			44	2,6667	9.52%	4.55%
	'>.05, <=.10'	40	68	48	30	22	9	¥	•	3	- 34	-43	(4)	208	3.3846	14.27%	15.87%
	'>.10, <=.20'	6	3	3	62	8	24	2	- 1		- 2	120	- 2	108	3.4444	2.12%	5.56%
	'>.20, <=.30'	1		-	12		4	17	7	•		150		41	3.1429	14.29%	2.44%
	'>.30, <=.40'	(4)	- 1	3	-		100	3	2	- 6	-	722		8	2.5	22.22%	25.00%
	'>.40, <=.50'			- •	5			-		1				6	2.5	0.00%	0.00%
	'>.50'	\$ *	-	+	- 14	-	-	8	6	*	3	4	6	19	2.5385	7.69%	5.26%

SR-MIAX-2016-46 Page 38 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20			>.40, <=.50	1 > .50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.04'	100	-	389		- 2	-		- 0	- 3-	-	-		489	1	33.33%	20.45%
	'0.05'	184	0.70	27		-	-	-	-	-	0.50	-	- 5	184	2.5	44.65%	45.11%
	'>.05, <=.10'	-	32	62	164	*		-	-	12	-	-	9	258	3.3333	0.00%	0.00%
	'>.10, <=.20'	117	58	-	-		-		(2)	- 2	2	- 2	- 2	175	2	29.06%	38.86%
	'>.30, <=.40'	-	100		(0.00)		•							100	2	0.00%	0.00%
	'>.40, <=.50'		-			-	-	29	14	28		- 1	-	71	4	0.00%	0.00%

SR-MIAX-2016-46 Page 39 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20		>.30, <=,40	>,40, <=.50	1 > 50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	12	8	-	1 2	- *	- Se	-	- 5-	14	-	1960	140	20	3	41.92%	45.00%
	'0.02'	169	5	-	17	-	-	- 5		-	,	(-7		174	3.5455	70.00%	56.90%
	'0.03'	20	38	-	*	-		~	-	-	-	-43	349	58	1.75	25.00%	34.48%
	'0.04'		7	1	15	-	12	2	- 1			1.0	120	23	4	0.00%	0.00%
	'0.05'	85	23	5	Tit.				12	•		(2)	-	113	2.4118	62.75%	61.95%
	'>.05, <=.10'	11	68	82	3	14	- 12	¥	14	18	-	- 12		178	2.875	28.65%	3.37%
	'>.10, <=.20'	1	-	1	41		1							44	3	37.50%	4.55%

SR-MIAX-2016-46 Page 40 of 81

PRIME Summary February 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10			>,40, <=.50			Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.05'	100	- 2	-	12		- 2	12	8	£	340	*	100	1	100.00%	100.00%
	'>.05, <=.10'	77	63	-	17	-	-	-		-			140	2.5	19.48%	21.43%
	'>.10, <=.20'	323		- 81		-		×		160	140	-	323	1	100.00%	100.00%

SR-MIAX-2016-46 Page 41 of 81

PRIME Summary March 2015

Order<50Ctx @NBBO Customer

		Improvement															
		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	265,562	22,158	2	10		-	-		-		-	-	287,732	4.3703	43.34%	36.25%
	'0.02'	305,433	32,754	1,012		10	2.5					- 25		339,209	4.0031	58.43%	53.02%
	'0.03'	212,793	45,846	2,801	180				(**)	- 3	2.7		- 6	261,620	3.9488	53.81%	48.68%
	'0.04'	148,486	44,586	6,594	450	97	89	*	393	- 2	3€3	*		200,213	3.9435	51.65%	46.52%
	'0.05'	154,511	67,761	22,180	6,302	1,972	421	13		9	(4)	- 12	- 2	253,160	3.9288	44.82%	39.80%
	'>.05, <=.10'	324,930	151,980	76,549	31,703	14,498	6,295	3,319	(44)		1723	G .	3	609,274	3.8061	43.60%	39.08%
	'>.10, <=.20'	219,360	113,127	80,661	48,906	30,210	20,969	29,676	2,648	1		· 🥳 /	3.8	545,558	3.6517	38.98%	34.67%
	'>.20, <=.30'	78,144	34,871	30,153	22,780	15,828	12,545	25,492	8,994	266				229,073	3.4692	37.22%	32.84%
	'>.30, <=.40'	39,493	15,427	13,480	10,852	9,069	7,647	17,980	8,061	1,395	46			123,450	3.3488	36.93%	32.66%
	'>.40, <=.50'	23,160	7,856	6,955	5,675	5,630	4,958	12,492	6,816	1,883	370	57	1	75,853	3.2935	36.94%	32.04%
	'>.50'	50,228	12,146	10,997	10,487	9,473	8,604	32,288	29,184	13,640	7,886	5,342	8,445	198,720	3.2642	36.34%	31.20%

SR-MIAX-2016-46 Page 42 of 81

PRIME Summary March 2015

Order>=50Ctx @NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	415,483	23,399	2	*		3	*	-	*		*	+	438,884	4.8694	39.44%	41.81%
	'0.02'	412,731	28,842	346						- 3		-	-	441,919	4.2751	53.95%	52.54%
	'0.03'	188,619	32,453	2,184	180					- 9			-	223,436	4.0252	50.38%	49.97%
	'0.04'	118,156	28,548	4,170	323	100			- 6	- 5		-	-	151,297	3.9638	47.67%	47.14%
	'0.05'	116,289	44,299	14,000	3,792	1,215	512	-	×		*:	-	+	180,107	3.9304	41.33%	40.57%
	'>.05, <=.10'	201,506	87,336	39,575	15,526	6,288	3,439	994	27	- 2	= 27		2	354,664	3.7779	40.79%	41.10%
	'>.10, <=.20'	112,109	52,250	39,237	20,138	15,154	8,984	12,495	692		. 3	. 8	. 24	261,059	3.5753	35.81%	35.84%
	'>.20, <=.30'	34,491	13,468	12,191	9,055	6,764	5,150	9,172	2,639	20	- 13	-		92,950	3.3899	34.86%	34.39%
	'>.30, <=.40'	14,138	4,831	5,395	2,896	3,368	2,241	5,811	3,182	465	- 45		- 8	42,327	3.4389	32.27%	33.05%
	'>.40, <=.50'	8,577	2,523	2,246	2,144	1,940	1,894	4,389	2,583	199	. =3	- 9	- 4	26,495	3.2978	34.50%	33.83%
	'>.50'	11,905	2,975	2,676	2,139	2,329	2,311	9,054	8,450	3,060	1,295	528	1,523	48,245	3.3716	30.35%	30.59%

SR-MIAX-2016-46 Page 43 of 81

PRIME Summary March 2015

Order<50Ctx I@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	557,961	5,216	38	2			-	- 2			- 1		563,217	2.9373	72.51%	68.91%
	'0.02'	337,317	15,225	438	11	-	-	(17)		-		-	-	352,991	3.6232	60.68%	55.13%
	'0.03'	127,198	18,111	1,355	101	11		2#3		(9)	- 80		*	146,776	3.501	58.46%	53.92%
	'0.04'	59,814	14,239	1,749	280	45	- 12			(0)	2	- 2		76,127	3.4709	56.11%	49.81%
	'0.05'	66,175	16,227	3,844	861	196	78	29	-	375	fs.	376	***	87,410	3.2846	55.90%	52.05%
	'>.05, <=.10'	74,918	28,399	15,719	6,655	2,484	912	631		191	- #	-		129,718	3.3577	47.67%	42.95%
	'>.10, <=.20'	37,073	12,820	9,639	7,131	4,794	3,160	4,509	325		-	-		79,451	3.2777	43.96%	40.61%
	'>.20, <=.30'	10,930	3,354	2,517	2,447	1,959	1,426	3,906	1,128	20	Η.		-	27,687	3.1909	44.23%	38.65%
	'>.30, <=.40'	4,902	931	867	891	638	643	1,794	1,117	82	11	-	2	11,878	2.9853	45.44%	41.87%
	'>.40, <=.50'	2,906	702	621	450	372	371	913	827	194	63	1	:::::	7,420	2.7163	47.49%	41.52%
	'>.50'	6,440	826	873	669	596	774	2,645	2,503	1,360	772	384	881	18,723	2.7524	50.08%	42.39%

SR-MIAX-2016-46 Page 44 of 81

PRIME Summary March 2015

Order>=50Ctx I@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20		>.30, <=.40		>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	595,389	4,667	14	-		-		- 4	120				600,070	2.9838	68.58%	70.36%
	'0.02'	391,515	12,602	434		-	7.		- 7	1,5%	-	0.73	. 5	404,551	3.5795	55.10%	55.54%
	'0.03'	132,024	15,451	607	34	9	-	-	34	-		-	- 181	148,116	3.5704	52.55%	51.85%
	'0.04'	53,194	11,966	1,292	18	76	22	. 2	- 2	1/2/	- 2	1.0		66,568	3.4707	49.85%	49.13%
	'0.05'	49,963	9,450	2,397	406	72	-	5		1.75		(25)	- 2	62,288	3.1459	56.05%	55.16%
	'>.05, <=.10'	47,016	12,904	7,524	2,202	279	207	23	- 4	22	- 14	120		70,155	3.0818	48.23%	48.38%
	'>.10, <=.20'	17,220	5,497	3,725	1,838	1,154	684	1,104	130	1171				31,352	2.9312	44.92%	45.99%
	'>.20, <=.30'	4,434	1,138	1,257	730	287	508	973	116		-		-	9,443	2.6585	47.26%	45.92%
	'>.30, <=.40'	2,336	574	122	276	95	171	293	189	1725	-	7.20		4,056	2.4444	53.37%	54.19%
	'>.40, <=.50'	905	44	406	72	50	27	628	375	24		(*)		2,531	2.3714	41.92%	38.09%
	'>.50'	1,851	127	388	16	100	53	470	433	6	100	50	310	3,904	2.2545	46.02%	46.67%

SR-MIAX-2016-46 Page 45 of 81

PRIME Summary March 2015

Order<50Ctx @NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20			>,40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.03'	13	- 2	- 1	1 2	*	· Se	-		×	-	140	- 12	13	5.5	85.00%	53.85%
	'0.04'	2	10	-	1.75	-	-		-	-	-			12	5	66.67%	16.67%
	'>.05, <=.10'	13		- 81	3	-	1	¥	-	185	14	140	(42	17	4	40.00%	41.18%
	'>.10, <=.20'		19	49	27	3	26	1	- 1			(4)	12	125	3.7778	11.11%	0.80%
	'>.20, <=.30'	10		-	Tit.	8	2	214	38	•	•	150	-	272	3.2593	1.85%	1.84%
	'>.30, <=.40'		-		1 4	-	-	131	147	- 2	-	120	198	278	3.2188	0.00%	0.00%
	'>.40, <=.50'		-			-	-	8	57					65	3.95	0.00%	0.00%

SR-MIAX-2016-46 Page 46 of 81

PRIME Summary March 2015

Order>=50Ctx @NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	> 05 <- 10	 		>.40, <=.50	× 50	Total Contracts Traded	The state of the s	Average Percent of order initiator	Average Percent of contracts initiator
															receives	receives
Spread	'0.02'	70	2	-	-		-	-		-			70	2	80.00%	80.00%

SR-MIAX-2016-46 Page 47 of 81

PRIME Summary March 2015

Order<50Ctx !@NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20			>.40, <=.50	1 > 50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	40	21		(4)	- 2				-	- 2	-	-	61	2.5556	51.80%	37.70%
	'0.02'	141	18	-	100	15	-	7.5		-	5.	15	- 5	159	3.8261	58.87%	59.75%
	'0.03'	63	5	-	-	-		F#6	140		*:		-	68	3.75	53.49%	39.71%
	'0.04'	6	23	31	14	-	-			-	- 2	12		60	3.375	25.00%	10.00%
	'0.05'	175	148	44	14	35	-	8.0	.5	-	(%)	25	-	416	2.6164	55.25%	38.70%
	'>.05, <=.10'	33	58	37	100	-		11 4 5	747	-	-5	-	-	128	3.0385	19.04%	12.50%
	'>.10, <=.20'	1	9	-	11	-5-	14	5						40	2.5714	14.29%	2.50%
	'>.20, <=.30'			1	-	21	*	32	1	-	- 8	3-4	-	55	3	6.67%	1.82%
	'>.30, <=.40'	141	72	12	112	-	14	(2)	4		- 2	72	-	4	4.5	0.00%	0.00%
	'>.50'	3			1.00				3		-	-		6	1.5	50.00%	50.00%

SR-MIAX-2016-46 Page 48 of 81

PRIME Summary March 2015

Order>=50Ctx !@NBBO Non-Cust

	 improvement															
	0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=,20	>.20, <=.30	>.30, <=.40	>.4Q <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread																

SR-MIAX-2016-46 Page 49 of 81

PRIME Summary April 2015

Order<50Ctx @NBBO Customer

g		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	245,837	13,965					880	397	*		1865	8	259,802	4.3745	44.12%	37.08%
	'0.02'	300,056	25,676	460		*		-		*	(*)		*	326,192	3.8426	59.56%	55.66%
	'0.03'	224,479	35,631	2,082	67	- 2		-	543	- 2		140	-	262,259	3.7768	55.22%	50.16%
	'0.04'	150,032	36,586	4,731	393	43	्		. 120	- 2	1.0			191,785	3.7613	52.80%	47.79%
	'0.05'	158,559	58,847	16,925	3,611	1,424	154	-		- 2		3 300	-	239,520	3.7299	46.63%	41.92%
	'>.05, <=.10'	362,933	147,827	65,779	29,226	11,459	5,257	2,132	7			3.50		624,620	3.6603	46.32%	41.66%
	'>.10, <=.20'	252,017	115,532	82,293	45,007	27,040	18,004	25,288	1,811		(*)	3.00	-	566,992	3.5551	43.08%	38.01%
	'>.20, <=.30'	90,464	36,117	30,025	21,808	15,199	11,935	24,109	6,870	192		146	- 8	236,719	3,4042	41.77%	36.68%
	'>.30, <=.40'	44,874	16,212	13,570	10,914	9,097	7,600	16,607	7,610	994	67	- 34	2	127,545	3.3128	40.73%	35.54%
	'>.40, <=.50'	24,298	7,532	6,898	5,672	5,031	4,799	11,609	6,316	1,321	300	5		73,781	3.2744	40.50%	35.14%
	'>.50'	52,280	12,867	10,840	10,058	9,652	9,372	30,223	29,797	13,892	7,135	4,351	7,226	197,693	3.3065	40.22%	33.98%

SR-MIAX-2016-46 Page 50 of 81

PRIME Summary April 2015

Order>=50Ctx @NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	427,405	12,863	*	*		*	×			*			440,268	4.8791	40.68%	43.37%
	'0.02'	438,217	23,547	167	- 4	- 2				-	L.	-	- 12	461,931	4.1017	55.20%	56.79%
	'0.03'	269,687	25,172	1,002	112	-	×		150	<u>;•</u> s	- 51	- 3	17	295,973	3.8454	51.62%	57.21%
	'0.04'	148,581	23,448	3,116	108	-		-	-	-	+	-	*	175,253	3.7875	48.79%	57.55%
	'0.05'	143,849	39,652	12,743	1,586	165	138	2	1911	. //=	. 27	12	_ 2	198,133	3.6954	43.32%	45.99%
	'>.05, <=.10'	306,156	86,687	36,732	13,850	5,029	2,431	857	328		- 11	-		451,742	3.6233	42.89%	46.80%
	'>.10, <=.20'	213,090	61,568	37,963	20,543	9,856	6,575	9,607	310		- 2	-		359,512	3.4809	37.79%	46.88%
	'>.20, <=.30'	60,756	15,818	10,618	8,851	6,247	3,694	7,368	2,000	-		-		115,352	3.2621	37.54%	44.62%
	'>.30, <=.40'	30,142	5,932	3,982	4,380	2,122	2,322	4,687	1,538	85		-	- 12	55,190	3.2449	36.53%	43.90%
	'>.40, <=.50'	15,215	2,339	2,330	1,697	1,241	1,124	3,367	1,694	534	- 2	-	-	29,541	3.093	41.66%	48.93%
	'>.50'	26,929	2,610	2,769	3,599	4,301	2,075	7,567	6,283	2,697	1,309	607	523	61,269	3.0735	36.58%	39.36%

SR-MIAX-2016-46 Page 51 of 81

PRIME Summary April 2015

Order<50Ctx !@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	S. S. A. S. S. S. S.	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	511,980	3,588	35						*		-	٠	515,603	2.9402	72.11%	68.96%
	'0.02'	343,325	16,657	312		£	15		-		-	-	7.4	360,309	3.5309	61.17%	55.96%
	'0.03'	136,271	17,980	1,187	54	3	- 2	2.	9	9	(20)	- 4	9	155,492	3.385	59.44%	54.22%
	'0.04'	62,396	13,833	1,982	149	5	16	1		- 7	- 12			78,382	3.2719	56.43%	51.20%
	'0.05'	72,651	15,981	4,022	620	243	166	18	Į.	*	(+3)	160	-	93,701	3.0784	57.07%	54.12%
	'>.05, <=.10'	75,993	26,865	12,701	6,104	2,198	760	433	27	- 2	- 121	12	1/20	125,054	3.1717	49.22%	44.78%
	'>.10, <=.20'	40,179	12,949	9,788	6,092	4,719	2,650	5,097	398	*			-	81,872	3.0938	46.45%	41.55%
	'>.20, <=.30'	12,302	3,098	2,514	2,305	1,906	1,566	4,149	1,485	30	-	-	196	29,355	3.1315	42.36%	37.99%
	'>.30, <=.40'	5,673	1,373	1,160	997	687	560	2,486	1,237	106	4	- 2	- 2	14,283	3.0044	45.28%	39.66%
	'>.40, <=.50'	3,847	701	566	485	500	382	1,331	1,094	252	33	3	1	9,195	2.8416	45.75%	41.70%
	'>.50'	7,265	1,159	803	820	770	692	2,677	2,976	1,512	794	401	807	20,676	2.8742	46.17%	40.19%

SR-MIAX-2016-46 Page 52 of 81

PRIME Summary April 2015

Order>=50Ctx !@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20		>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	629,737	1,654	9		(w);		*	- 1	(/.€./			14	631,391	2.945	69.36%	73.29%
	'0.02'	387,696	10,603	276	. 3	- S				-			<u> </u>	398,575	3.509	55.09%	57.57%
	'0.03'	137,463	11,978	989	-					(e)	- 1	-	: +	150,430	3.4327	52.91%	56.31%
	'0.04'	54,778	9,031	1,675	75	140		2)	52	243		7.4	14	65,559	3.3142	51.22%	54.36%
	'0.05'	53,954	8,400	1,938	364	20	-	-		-				64,676	2.9576	55.10%	56.11%
	'>.05, <=.10'	90,457	15,277	5,393	1,519	819	7	477	-	-	-	-	-	113,949	2.9137	47.21%	61.84%
	'>.10, <=.20'	26,561	6,152	4,602	1,364	1,034	505	1,284	5	1120	2	143	12	41,507	2.7031	47.51%	49.56%
	'>.20, <=.30'	19,657	1,114	835	754	268	545	794	26	9.53		553	17.	23,993	2.6197	45.97%	76.18%
	'>.30, <=.40'	4,344	307	190	595	61	175	512	252	(26)	×	-	14	6,436	2.4	43.82%	53.56%
	'>.40, <=.50'	3,217	53	138	317	168	142	676	234	-	- 3	-		4,945	2.5333	47.40%	45.66%
	'>.50'	4,776	107	254	157	39	148	486	1,172	173	-	(5 7 5	40	7,352	2.1972	58.73%	58.85%

SR-MIAX-2016-46 Page 53 of 81

PRIME Summary April 2015

Order<50Ctx @NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	- NAMES OF STREET	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.02'	10	-	-		19		-	+			-	-	10	2	100.00%	100.00%
	'0.04'	12	-	-	-8	:	-		-	-		. 2	- 2	12	2	33.33%	33.33%
	'0.05'		4		-	16		-	-			- 51	-	4	6	0.00%	0.00%
	'>.05, <=.10'	69	6	1	5	39	240	- 2	-	-	120	-	12%	120	3.3333	20.74%	24.17%
	'>.10, <=.20'	4	1	1	1	23	-				-	-		30	3	13.33%	13.33%
	'>.20, <=.30'	5	39	-	-	-	1)(+)		10		-		-	54	2.75	10.00%	3.70%
	'>.30, <=.40'	-		2	2	6	1740	10	-		141	-	(4)	20	3	0.00%	0.00%
	'>.40, <=.50'		14	-		127	15.00			- 5	3.5	- 8	300	14	3	0.00%	0.00%
	'>.50'	32	4	-	5	12		5	5	-	2		1	54	2.0769	53.85%	59.26%

SR-MIAX-2016-46 Page 54 of 81

PRIME Summary April 2015

Order>=50Ctx @NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.02'	79	-	-	-	-	- 4	160	-	(-)	le:	-	~	79	2	91.14%	91.14%
	'0.04'	115	7	-	-	12						- 20	-	122	4	39.34%	39.34%
	'>.10, <=.20'		-	-	122	0.00		(8)	*	100	۴		- 51	122	3	0.00%	0.00%
	'>.20, <=.30'	50	-	-	-		14	223	12	190	120	-	4	50	3	50.00%	50.00%

SR-MIAX-2016-46 Page 55 of 81

PRIME Summary April 2015

Order<50Ctx !@NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40		>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	5	11	-	+1	19	199					κ.		16	3	42.50%	25.00%
	'0.02'	230	8	-	-8	_ <u></u>	-	9	-	-		. 2	- 2	238	4.05	64,31%	43.28%
	'0.03'	101	39	2	•	16	::::	-		- 5		:	-	142	3.4688	41.94%	45.77%
	'0.04'	57	16	-	-	(4)	14		- 1	- 4	120	-	- 1	73	4.0625	46.55%	41.10%
	'0.05'	163	50	5	-		-	-			-	-		218	3.0862	71.40%	50.46%
	'>.05, <=.10'	35	46	22	15		5				-		-	123	3	21.04%	21.95%
	'>.10, <=.20'	25	2	2	3	26	-		-		-		-	58	2	61.43%	43.10%
	'>.20, <=.30'	5	-	;m:		- 12				- 5	3.5	- 5		5	3	40.00%	40.00%
	'>.50'	1.00	-	-	-	19	1			1			-	2	2	0.00%	0.00%

SR-MIAX-2016-46 Page 56 of 81

PRIME Summary April 2015

Order>=50Ctx !@NBBO Non-Cust

		transport of the second															
		23														Average	Average
			1						. 10	>.20,	× 20	- 40		Total	Average	Percent of	Percent of
		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	<=.20					Contracts	Number of	order	contracts
			1					25	<=.20	<=,30	<=.40	<=.50		Traded	Participants	initiator	initiator
														AF-41003900000		receives	receives
Spread	'0.02'	126		-		*		21		- 20	-	848	-	126	2	88.89%	88.89%

SR-MIAX-2016-46 Page 57 of 81

SEC PRIME Summary May 2015

Order<50Ctx @NBBO Customer

	22	Improvement										5		×			
		o	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	234,656	10,888	28	2		92		2	. 2	. 12	(6)	- 2	245,572	4.4787	43.74%	36.99%
	'0.02'	269,521	21,281	340	- 5	9	- 4		¥	- 2	. 9		+	291,156	3.7914	61.99%	57.47%
	'0.03'	185,319	27,561	1,515	102	12	32	- 12	- 2	~	(4	6	- 8	214,497	3.7386	56.64%	51,74%
	'0.04'	126,076	30,181	4,790	323	2		F 97	+	S 80		-	-	161,372	3.7209	54.28%	48.82%
	'0.05'	134,033	48,997	14,832	3,026	577	79	2	-	-	S .	-		201,546	3.7611	48.12%	43.42%
	'>.05, <=.10'	324,775	121,729	55,951	24,095	9,449	4,062	2,095	<u> </u>	2	. 9	- 2	20	542,156	3.687	48.17%	43.58%
	'>.10, <=.20'	223,965	99,086	68,347	39,206	22,332	14,989	22,206	1,647		(4)	5-3	[B	491,778	3.6335	44.56%	39.99%
	'>.20, <=.30'	83,142	32,420	26,923	17,701	11,689	10,957	20,364	6,573	234				210,003	3.4707	43,74%	38.92%
	'>.30, <=.40'	41,845	13,305	11,926	9,680	7,256	6,517	14,563	7,163	632	46		+ 1	112,933	3,3901	43.30%	37.68%
	'>.40, <=.50'	25,012	6,928	6,940	5,335	4,841	4,307	10,433	6,011	1,186	253	9	- 5	71,255	3.347	42.79%	37,43%
	'>.50'	50,293	12,196	10,216	9,972	8,810	8,055	27,914	25,936	11,586	6,057	3,629	5,223	179,887	3,3694	40.58%	35.09%

SR-MIAX-2016-46 Page 58 of 81

SEC PRIME Summary May 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator	Average Percent of contracts initiator
					,	-								Traded	Participants	receives	receives
Spread	'0.01'	434,895	12,608						٠		*	-	- 3	447,503	4.8118	40.55%	45.68%
2.5	'0.02'	514,486	29,136	360		:4		3.40		*				543,982	4.0979	54.57%	62.10%
	'0.03'	223,775	28,056	1,036	- 2	- 2	120		29	2	- 5	- 2	_2	252,867	3.8324	51.46%	54.49%
	'0.04'	130,416	23,272	3,966	115	e 1		55.	- 8	-		-	*	157,769	3.6824	48.32%	51.00%
	'0.05'	127,614	36,695	9,278	2,203	222	100	-			-	-	- 8	176,112	3.775	43.00%	48.74%
	'>.05, <=.10'	300,833	80,064	37,120	13,633	5,108	1,938	715	[2]	2	- 2	-	12	439,411	3.6493	42.11%	50.09%
	'>.10, <=.20'	180,906	48,802	34,536	14,735	10,112	7,984	8,325	403	*	- 81	-	-	305,803	3.5377	40.26%	47.02%
	'>.20, <=.30'	65,697	12,952	12,526	6,783	4,308	3,450	6,455	1,004	-	-	-		113,175	3.2963	38.73%	48.79%
	'>.30, <=.40'	23,802	6,791	5,103	3,404	3,407	1,500	5,680	1,646	110	- 2	- 12	- 12	51,443	3.3238	34.36%	38.49%
	'>.40, <=.50'	13,320	1,754	2,793	1,523	914	2,788	4,030	2,318	271		-	-	29,711	3.227	36.63%	40.18%
	'>.50'	22,118	3,132	4,156	3,983	2,885	2,207	8,503	7,055	2,246	1,470	733	743	59,231	3.1685	32.06%	33.95%

SR-MIAX-2016-46 Page 59 of 81

SEC PRIME Summary May 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participant s	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	459,448	3,215	1					٤		-		0.*	462,664	2.8979	72.78%	70.10%
	'0.02'	292,015	11,875	196	17			**	×	14	-	- 1		304,103	3.4536	62.91%	57.82%
	'0.03'	108,911	14,233	617	38	2	72	25			920		7/20	123,826	3.3354	60.93%	55.70%
	'0.04'	50,695	9,966	1,877	209	27			-	- 5				62,774	3.2708	57.74%	53.51%
	'0.05'	54,522	12,179	3,822	546	191	19	23	3	-		-	0±0	71,302	3.1149	57.62%	54.03%
	'>.05, <=.10'	63,262	20,860	10,766	5,261	2,050	748	494	3	- 12	- 2	- 2	- 2	103,444	3.2458	49.56%	45.42%
	'>.10, <=.20'	31,775	10,860	7,941	5,649	4,374	2,999	4,866	321	3	-			68,788	3.2283	46.01%	40.65%
	'>.20, <=.30'	11,262	3,078	2,236	1,648	1,561	1,337	3,944	1,206	44	5 - 0	-		26,316	3.1468	44.84%	40.79%
	'>.30, <=.40'	5,520	999	1,033	758	584	397	1,879	1,166	131	8	-	14	12,475	3.0167	43.93%	42.15%
	'>.40, <=.50'	3,506	3,506 622	462	382	406	338	1,005	861	190	12	4		7,788	2.8286	48.42%	45.24%
	'>.50'	6,879	801	888	676	872	705	2,431	2,551	1,301	578	430	723	18,835	2.8919	44.77%	40.47%

SR-MIAX-2016-46 Page 60 of 81

SEC PRIME Summary May 2015

Improvement

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	3350	>.30, <=.40		>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	623,206	2,074		9	, F	0	224	- 1	1			•	625,280	2.7815	71.92%	75.57%
	'0.02'	335,409	11,003	79	(#)		-			100		076	-	346,491	3.334	56.73%	58.06%
	'0.03'	127,097	11,622	341		#	_ =	*		7.2	- 2			139,060	3.3385	54.02%	59.26%
	'0.04'	56,525	9,109	1,202	31	-	-			- 15	-			66,867	3.1411	52.75%	60.87%
	'0.05'	42,260	6,914	1,867	200	61	*	*	*				*	51,302	3.06	53.30%	56.90%
	'>.05, <=.10'	53,226	10,774	3,000	1,367	571	109	×	12	1025		7/50	-	69,047	2.917	51.19%	58.63%
	'>.10, <=.20'	22,132	4,591	2,047	1,011	1,167	648	696	2	10.73	*			32,294	2.7351	47.94%	55.59%
	'>.20, <=.30'	25,346	1,114	608	510	489	382	742	106	796		(56)	-	29,297	2.6129	45.12%	81.09%
	'>.30, <=.40'	2,295	295	159	189	165	389	510						4,002	2.4038	46.98%	47.33%
	'>.40, <=.50'	2,014	218	98	114	50	69	74	19	(38)	19	€ * 7		2,656	2.28	53.56%	69.47%
	'>.50'	1,065	210	420	48	96	100	156	323	50	- 2	7.24	125	2,468	2.5938	38.64%	41.77%

SEC PRIME Summary May 2015 - Pg 2

SR-MIAX-2016-46 Page 61 of 81

SEC PRIME Summary May 2015

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>,40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.02'	11	-	-	1 2	-	12	2	-	-		120		11	2.5	70.00%	72.73%
	'0.05'	2		-	77				15	- 0		155	- 300	2	2	100.00%	100.00%
	'>.05, <=.10'	14	-	-	1 4	- (4)	- 12	¥	12	18		722	(Se)	14	1.5	75.00%	64.29%
	'>.10, <=.20'	1	-	12	2			-		-		-		15	3	50.00%	13.33%
	'>.20, <=.30'	S.*	-	10	- 4	-	-	8	-	*:	1.7	1(*)	-	10	2	0.00%	0.00%
	'>.30, <=.40'	120	19	-	12	0.20	- 12	2	-	1.0		-	120	19	3	0.00%	0.00%

SR-MIAX-2016-46 Page 62 of 81

SEC PRIME Summary May 2015

Improvement

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20		>.40, <=.50			Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'>.05, <=.10'	1,091	-	-	12	- 2	-		0.27	 2:	12	27	1,091	2.3333	59.85%	67.46%
	'>.10, <=.20'	-	75	-	77	-	-		.5	-	25	*	75	3	0.00%	0.00%
	'>.50'	200	-	-	-	200	-	1125	720	2.40	- 14	-	400	2.5	37.50%	37.50%

SEC PRIME Summary May 2015 - Pg 3

SR-MIAX-2016-46 Page 63 of 81

SEC PRIME Summary May 2015

		improvement															
		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	28	4						-				-	32	2,3333	75.00%	75.00%
	'0.02'	180	16	i +	-				-					196	3.8235	48.91%	59.69%
	'0.03'	31	3	2	2	. 2,	. 2	. 2	- 2	. 2	. 2		21	34	2.5	50.00%	91.18%
	'0.04'	15	1	¥	-				-				¥.	16	2.5	62.50%	87.50%
	'0.05'	212	15	6	24	14	34	1 19	- 2	× 1	(4		- 8	233	2.7568	69.20%	80.69%
$\overline{}$																20-002	0.0-0.00

SR-MIAX-2016-46 Page 64 of 81

SEC PRIME Summary May 2015

	Improvement 0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread																

SEC PRIME Summary May 2015 - Pg 4

SR-MIAX-2016-46 Page 65 of 81

PRIME Summary June 2015

Order<50Ctx @NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	263,099	11,923	1	32	- 9		(44)	•			*		275,023	4.6827	45.22%	38.05%
	'0.02'	283,195	22,003	493	- 2		- 4	- 2	- 6			- 1	- 2	305,691	3.7979	62.97%	59.32%
	'0.03'	181,395	30,320	2,094	73	-								213,882	3.822	55.23%	50.69%
	'0.04'	120,182	30,539	5,125	560	13	9			*			- 13	156,428	3.8386	52.81%	48.76%
	'0.05'	138,390	44,698	14,322	3,928	1,017	111	11		*			->-	202,477	3.808	49.92%	46.89%
	'>.05, <=.10'	327,197	120,368	57,315	23,781	9,801	3,926	2,241				- 4		544,629	3.7677	48.82%	45.18%
	'>.10, <=.20'	238,488	98,823	68,470	38,666	23,335	15,169	21,210	1,954	1	12	- 0		506,116	3.6973	46.75%	42.68%
	'>.20, <=.30'	90,778	32,554	27,071	19,307	13,579	9,843	20,975	6,743	233			-	221,083	3.543	46.45%	41.71%
	'>.30, <=.40'	47,129	15,402	13,730	10,671	7,656	6,316	14,473	6,982	757	53	- 300		123,169	3.4321	45.05%	40.25%
	'>.40, <=.50'	27,857	7,954	7,420	6,488	4,987	4,684	10,679	6,258	1,653	244	43	. 3-	78,267	3.3943	44.95%	40.49%
	'>.50'	53,532	14,087	12,370	10,689	9,691	8,919	30,656	27,559	12,130	6,381	3,919	6,271	196,204	3.4392	41.99%	35.90%

SR-MIAX-2016-46 Page 66 of 81

PRIME Summary June 2015

Order>=50Ctx @NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30		>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	471,294	13,315			1.60	х	x		-			1	484,609	4.9828	41.40%	45.50%
	'0.02'	428,149	24,218	296									*	452,663	4.052	56.54%	56.57%
	'0.03'	266,724	24,696	1,749	135		-				•		*	293,304	3.7814	52.89%	62.37%
	'0.04'	116,166	23,299	3,098	163	-	-	-	-	-	-	- 20	*	142,726	3.8132	49.66%	49.22%
	'0.05'	129,777	32,479	8,596	1,151	663	11	3			-			172,680	3.7482	46.50%	51.03%
	'>.05, <=.10'	311,960	63,829	28,705	12,856	3,737	1,372	993	30.0	3.00	*	+	**	423,452	3.6298	46.18%	53.59%
	'>.10, <=.20'	211,361	48,990	33,515	15,014	8,460	5,836	6,899	305	-	_	123		330,380	3.5581	43.23%	52.15%
	'>.20, <=.30'	53,365	13,601	11,467	8,485	5,174	3,555	8,181	992	12		173		104,832	3.3721	42.26%	44.47%
	'>.30, <=.40'	19,155	4,351	3,570	4,411	2,532	1,870	4,493	1,747	120	*	-	*	42,249	3.3923	39.53%	42.49%
	'>.40, <=.50'	17,241	2,711	2,167	2,082	1,734	1,208	4,221	1,034	421	91		- 20	32,910	3.231	40.13%	48.62%
	'>.50'	23,916	3,023	3,319	2,336	4,107	1,615	6,286	6,903	2,625	705	363	589	55,787	3.1865	38.11%	40.70%

SR-MIAX-2016-46 Page 67 of 81

PRIME Summary June 2015

Order<50Ctx 1@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30		>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	497,875	2,864	7					¥	×		H:	*	500,746	2.9154	72.88%	70.17%
	'0.02'	301,005	12,899	252		2		-	•			-		314,158	3.4849	63.60%	58.75%
	'0.03'	103,830	13,421	1,267	64	6					-			118,588	3.3826	60.47%	56.48%
	'0.04'	43,654	9,193	1,812	263	2	- 2	(4)	-		- 20	- 2	- 4	54,924	3.3136	57.52%	53.35%
	'0.05'	52,518	10,859	2,828	652	217	57		-	-		-	-5	67,131	3.0796	59.64%	56.53%
	'>.05, <=.10'	62,578	18,031	9,235	4,287	1,580	676	485					*	96,872	3.2024	52.71%	49.38%
	'>.10, <=.20'	35,735	10,192	7,427	4,997	3,129	2,543	3,690	376	- 2	-	121	- 2	68,089	3.1814	49.30%	46.24%
	'>.20, <=.30'	12,591	3,158	2,302	1,999	1,561	1,479	3,408	1,096	43		-	53	27,637	3,1297	47.29%	43.15%
	'>.30, <=.40'	6,217	1,330	1,165	886	665	557	1,921	1,200	127	26	-	- 4	14,094	3.0743	46.89%	43.85%
	'>.40, <=.50'	4,119	699	601	330	367	509	1,033	908	198	23	2	- 2	8,789	2.8514	47.89%	46.99%
	'>.50'	7,426	1,180	954	717	805	804	2,488	2,893	1,324	641	412	678	20,322	2.8082	47.95%	41.37%

SR-MIAX-2016-46 Page 68 of 81

PRIME Summary June 2015

Order>=50Ctx !@NBBO Customer

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=,40	>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	780,817	2,023	2		- 2	-	-	-	546	-	- 0	10	782,840	2.759	72.89%	77.45%
	'0.02'	429,851	12,120	10	-		•	1.50	-		-	-		441,981	3.3496	58.17%	64.00%
	'0.03'	119,980	11,221	371		*	,	340	-		-	-	*	131,572	3.3629	53.40%	60.97%
	'0.04'	44,570	7,579	712	30	96	-	8E8		121	-	- 4	- 0	52,987	3.3131	51.02%	56.91%
	'0.05'	34,785	7,946	1,349	413	10					17.		*	44,493	2.836	58.60%	58.62%
	'>.05, <=.10'	88,125	10,168	4,838	1,593	109	54	121	II.		14	-	*	105,008	2.9556	52.64%	68.73%
	'>.10, <=.20'	26,599	3,604	1,773	2,051	740	276	839	30				- 6	35,912	2.8145	54.10%	60.99%
	'>.20, <=.30'	12,228	1,042	4,286	1,051	60	155	503	12	2	-	-	- 85	19,339	2.5862	52.47%	54.03%
	'>.30, <=.40'	3,474	360	198	274	185	173	452	86	10	-	- 30	3	5,212	2.48	50.37%	57.98%
	'>.40, <=.50'	9,076	395	356	295	165	255	91	50			- 0		10,683	2.1957	50.48%	80.74%
	'>.50'	3,504		16	140	160	105	267	276	281	200		50	4,983	2.0714	50.32%	59.02%

SR-MIAX-2016-46 Page 69 of 81

PRIME Summary June 2015

Order<50Ctx @NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30		>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'		10	-	-	-		2	-	-	-	23	-	10	1	0.00%	0.00%
	'0.03'	16	-		-	-			-	-	-	-	-	16	1	100.00%	100.00%
	'0.05'		1	-	-		1)(+)	-	+		*		-	1	4	0.00%	0.00%
	'>.05, <=.10'	-	- 5	66	34	12	7/20		120		(4)	- 2	-	100	5	0.00%	0.00%
	'>.10, <=.20'		-	-	5	8	1.0	4				- 5	-	17	3.25	0.00%	0.00%
	'>.30, <=.40'	1	-	1	2:	14		4	4		-	- 1	-	10	4	20.00%	20.00%
	'>.40, <=.50'		-	-	-	1 %			-	1		. 8	-	1	4	0.00%	0.00%

SR-MIAX-2016-46 Page 70 of 81

PRIME Summary June 2015

Order>=50Ctx @NBBO Non-Cust

Improvemen

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30	>.30, <=.40	>.40, <=.50	>.50		Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.01'	1,000	12.	-	-	- 14	-	2		-	-	- 2	-	1,000	4	40.00%	40.00%
	'>.05, <=.10'	110	-			40					- 1	-	-	150	2	72.50%	63.33%
	'>.10, <=.20'	625	+	-	-	- 8	1)(+):		180			- 8	-	625	1	100.00%	100.00%

SEC PRIME Summary Jun 2015 - Pg 3

SR-MIAX-2016-46 Page 71 of 81

PRIME Summary June 2015

Order<50Ctx !@ NBBO Non-Cust

		0	0.01	0.02	0.03	0.04	0.05	>.05, <=.10	>.10, <=.20	>.20, <=.30		>.40, <=.50	>.50	Total Contracts Traded	Average Number of Participants	Average Percent of order initiator receives	Average Percent of contracts initiator receives
Spread	'0.02'	65	2.	-	-	-	-	-	-	- 2	-	20	2	65	4.25	70.00%	67.69%
	'0.03'	22	55		-	-		-	-	-	-	-	-	77	3.2	34.67%	20.78%
	'0.04'	136	*	-	-	5	1)+)		1+	-	*	- 8	-	141	1.9167	91.67%	96.45%
	'0.05'	10	21	-	-	12	7720	9	520	-	(4)	- 2	-	31	2.25	25.00%	32.26%
	'>.05, <=.10'	10	30		**	10		-	-	-		- 5	3.5	50	3	22.50%	18.00%
	'>.10, <=.20'	-	5	12	4	14	240	-	- 4	- 2	-	- 2	-	9	2.5	0.00%	0.00%
	'>.50'	30				1 %			-	- 2	74.	- 8		30	1	100.00%	100.00%

SR-MIAX-2016-46 Page 72 of 81

PRIME Summary June 2015

Order>=50Ctx !@NBBO Non-Cust

Improvement Average Average Total Percent of Average Percent of >.10, >.20, >.30, >.40, <=.20 <=.30 <=.40 <=.50 0 0.01 0.02 0.03 0.04 0.05 >.05, <=.10 >.50 Contracts Number of order contracts Traded Participants initiator initiator receives receives Spread '>.50' 500 500 95.80% 95.80%

SEC PRIME Summary Jun 2015 - Pg 4

SR-MIAX-2016-46 Page 73 of 81



Prime Orders

(For the Busines Month: 2015-07)

Business Month	Mini Option	Prime Prime Order Order >> 50 Ctx < 50 Ct	> 50 Ctx	% Orders < 50 Ctx ent Prime	< 50 Ctx	of Orders	% All Trade Vol Of Orders < 50 Ctx	% All Trade Vol Of Orders < 50 Ctx ent Prime		Avg Spread Prime Order < 50 Ctx	%Auto Match With Limit Price	%Auto Match WO Limit Price	Avg Price Improved Auto Match With Limit Price	Avg Price Improved Auto Match W/O Limit Price	Avg Price Improved Stop Price
2015-07	N	48,572 661,59	9 824%	16.07%	B1.94%	48.94%	39.41%	20.14%	\$0.0768	\$.0.2160	13.10%	0.00%	\$ 0.0450	N/A	\$ 0.0198
	Unroll	ated Order receives	d on Assess Sid	e Terminated Aucti											
	Unter	sted Order received	n on Agency San	e reminated Aucti	D-FI										
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		ent Impr rm Part	ng Price overnent ticipated Frade						
2015-07	N	766	352	0	0.05%	0.00%	\$ 0.0032		N/A						
	50000	1020 5													
Part of the second				e Terminated Auctio											
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		int Impr rm Part	g Price ovement licipated (rade						
2015-07	N	97	27	96	0.00%	0.01%	\$ 0.0098	\$ 0.	.0075						
Unre	lated Limit Or	der received on Co	ontra Side Impro	ved AOC and Term	inated Auction										
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Firm	Improv Partic	Price vement ipated ade						
2015-07	N	148	4	62	0.00%	0.01%	\$ 0.0063	\$0.0							
		RFR Crossed N	880 and Termin	rated Auction											
Business	Mini	# Auctions	# Auctions	# Auctions	% Auctions	% Auctions	Avg Price	Ava	Price						
Month	Option		by Same Firm	Participated Trade	Participated by Same Firm	Participated Trade		Improv Partic	vement ipated ade						
2015-07	N	2,461	106	2,270	0.02%	0.32%	\$0.0363	\$0.0							
			Ouote Lock												
Business	Mini	Buy Agenc	y Buy Agency	Sell Agency	Sell Agend	y # Price									
Month	Option	Order Quot	e Quote Cross B NBO	Order Quote Cross NBB	Order Out Cross NB		d Improven	ment							
2015-07	N	1,619	111	176	916	1,891	\$0.000	6							
		Auctio	n Halt				Auction En	nd.							
							Normal								
Business Month	Mini Option	# Auctions	# Price Improved	Avg Price Improved	% Price Improved V	ol	Avg Price Improveme								
2015-07	N	0	0	N/A	N/A		\$ 0.0086								

SR-MIAX-2016-46 Page 74 of 81



Prime Orders

(For the Busines Month: 2015-08)

Business Month	Mini Option	Prime Order >= 50 Ctx	Prime Order < 50 Ctx	% Orders >= 50 Ctx ent Prime	% Orders < 50 Ctx ent Prime	of Orders < 58 Ctx	of Orders	N All Trade Vol Of Orders < 50 Cts	% All Traile Vol Of Orders < 50 Ctx ent Prime	Avg Spread Prime Order >= 58 Ctx		%Auto Match With Limit Price	%Auto Match WO Limit Price	Avg Price Improved Auto Match With Limit Price	Avg Price Improved Auto Match WO Limit Price	Avg Price Improved Stop Price
2015-08	N	45,164	524,901	4.76%	10.92%	79.52%	40.64%	37.50%	16.06%	\$0.0811	\$ 9,2085	11.65%	0.00%	\$ 0.0536	N/A	\$ 0.0196
	Unre	lated Order	received	on Agency Sid	e Terminated Aucti	en.										
Business Month	Mini Option	# Au	ctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade	Avg Price Improveme by Same Fi	mt Impro	g Price evement icipated rade						
2015-08	N	6	54	390	0	0.07%	0.00%	\$ 0.0059		N/A						
	5257		79.5													
					Terminated Auctio											
Business Menth	Mini Option	# Au	ctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade	Avg Price Improveme by Same Fi	int Impro rm Parti	g Price overnent icipated rade						
2015-08	N		14	26	94	0.00%	0.01%	\$ 0.0069	\$0.	0063						
Unre	slated Limit O	rder receiva	ed on Con	rtra Side Impro	ved AOC and Termi	nated Auction										
Business Month	Mini Option	# Aucti	ions s	Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Firm		remont ipated						
2015-08	N	170)	9	68	0.00%	0.01%	\$0.0117	\$ 0.0							
		RFR Cre	issed NB1	BO and Termin	ated Auction											
4	222	1/404/100			9202113211111	100000000000000000000000000000000000000	120 200 200 40	1020122011	200	2000						
Business Month	Mini Option	# Aucti	ions i	Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Fire		rement ipated						
2015-08	N	2,068	Ĭ.	73	1,941	0.01%	0.34%	\$0.0016	\$0.0	1115						
				Duote Lock												
Business Month	Mini Option	Ore		Buy Agency Quote Cross NBO	Sell Agency Order Quote Cross NBB	Sell Agenc Order Quo Cross NBC	te Improve	Avg Pr d Improver								
2015-06	N		1,243	146	253	984	1,620	\$ 0.000	6							
			Auction	Hall				Auction Er	ut							
Business	Mini		uctions	# Price	Avg Price	% Price		Normal Avg Price								
Month	Option	7.8	menotia-	Improved	Improved	Improved Ve	t	Improveme								
2015-08	N		0	0	N/A	N/A		\$ 0.0089								

SR-MIAX-2016-46 Page 75 of 81



Prime Orders

(For the Busines Month : 2015-09)

Business Month	Mini Option	Prime Prime Order Order >= 50 Ctx < 50 Cts	% Orders >= 50 Ctx ant Prime	% Orders < 50 Ctx ent Prime	< 50 Ctx	of Orders	% All Trade Vol Of Orders < 58 Ctx	% All Trade Vol Of Orders < 50 Ctx ent Prime	Avg Spread Prime Order >= 58 Ctx	Avg Spread Prime Order < 50 Ctx	%Auto Match With Limit Price	%Auto Match WO Limit Price	Avg Price Improved Auto Match With Limit Price	Avg Price Improved Auto Match W/O Limit Price	Avg Price Improved Stop Price
2015-09	N	33,153 403,77	5.10%	10.10%	80.47%	38.41%	37.11%	14,80%	\$ 0 D638	\$.0.1624	9.92%	0.00%	\$0.0423	N/A	\$ 0.0175
	Unrel	lated Order received	on Agency Sid	e Terminated Aucti	on										
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		nt Impro m Part	g Price ovement icipated rade						
2015-09	N	370	191	0	0.04%	0.00%	\$ 0.0005		N/A						
	Unrei	lated Order receives	f on Contra Sid	e Terminated Auctio	D41										
Business Menth	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		nt Impre m Parti	g Price evement icipated rade						
2015-09	N	54	11	54	0.00%	0.01%	\$ 0.0017	\$ 0.	0036						
Unre	plated Limit O	rder received on Co	entra Side Impro	ved AOC and Term	inated Auction										
Business Month	Mini Option	# Auctions	# Auctions	# Auctions Participated Trade	5 Auctions	% Auctions Participated Trade	Avg Price Improvement by Same Firm	Partic	rement						
2015-09	N	80	3	44	0.00%	0.01%	\$ 0.0004	\$0.0							
		RFR Crossed NE	380 and Termin	ated Auction											
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Firm	Partic	rement						
2015-09	N	1,476	38	1,345	0.01%	0.31%	\$0.0137	\$0.0							
			Quote Lock												
Business Month	Mini Option		y Buy Agency e Quote Cross NBO	Sell Agency Order Quote Cross NBB	Sell Agend Order Quo Cross NBC	ite Improve									
2015-09	N	996	136	123	531	1,195	\$ 0.009	3							
		Auction	ı Halt				Auction En Normal	ut							
Business Month	Mini Option	# Auctions	# Price Improved	Avg Price Improved	% Price Improved Ve	ol	Avg Price Improveme								
2015-09	N	0	0	N/A	NA		\$ 0.0055								

SR-MIAX-2016-46 Page 76 of 81



Prime Orders

(For the Busines Month: 2015-10)

Business Month	Mini Option	Prime Order >= 50 Ctx	Prime Order < 50 Ctx	% Orders >= 50 Ctx ent Prime	% Orders < 50 Ctx ent Prime	< 50 Ctx	of Orders	S All Trade Vol Of Orders < 50 Ctx			Avg Spread Prime Order >= 50 Ctx	Avg Spread Prime Order < 58 Ctx	%Auto Match With Limit Price	%Auto Match WO Limit Price	Avg Price Improved Auto Match With Limit Price	Avg Price Improved Auto Mate W/O Limit Price
2015-10	N	45,231	542,931	7.24%	11.25%	81.92%	44.88%	39.22%	18.1	18%	\$ 0.0636	\$0.1732	11.05%	0.00%	\$ 0.0347	N/A
	Unre	lated Order	received	on Agency Sid	e Terminated Auct	ion										
Business Month	Mini Option	# Aus	tions	// Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		unt	Impre Parti	j Price overnent cipated rade					
2015-10	N	A	ti.	128	0	0.02%	0.00%	\$0.0016			N/A					
	Una	lated Order	received	on Contra Side	Terminated Aucti	ion										
Business Month	Mini Option	# Auc		# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		ent	Impre Parti	j Price ovement cipated rade					
2015-10	N	7	1	23	71	0.00%	0.01%	\$0.0054		\$ 01	0041					
Herei	lated Lindt C	rder recelus	d on Cor	dra Sida Inmen	ved AOC and Term	sinated Auction										
Business	Mini	# Aucti		Auctions	# Auctions	% Auctions	% Auctions	Avg Price		Avg I	No.					
Month	Option	P AllCo	ons y	by Same Firm	Participated Trade	Participated by Same Firm	Participated Trade			Improv Partici Tra	ement pated					
2015-10	N	133	95	19	61	0.00%	0.01%	\$ 0.0030		\$ 0.0	024					
		RFR Cro	ssed NBI	BO and Termin	ated Auction											
Business Month	Mini Option	# Aucti	ons /	Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Fim		Avg I Improv Partici Tra	ement pated					
2015-10	N	2,551		27	2.277	0.00%	0.39%	\$,0.0127		\$00	121					
				Juote Lock												
Business Month	Mini Option	Ord	Agency er Quote oss NBB	Buy Agency Quote Cross NBO	Sell Agency Order Quote Cross NBB	Sell Agen Order Que Cross NB	ste Improve									
2015-10	N		1,551	178	155	1 (166	2,031	\$ 0.00	B3							
			Auction	Halt				Auction E								
Business Month	Mini Option	# Ar	uctions	# Price Improved	Avg Price Improved	% Price Improved V		Avg Pric								

SR-MIAX-2016-46 Page 77 of 81



Prime Orders

(For the Busines Month: 2015-11)

Business Month	Mini Option	Prime Prime Order Order >> 50 Ctx < 50 Ct	> 50 Ctx	% Orders < 50 Ctx ent Prime	of Orders < 50 Ctx	of Orders	% All Trade Vol Of Orders < 50 Ctx	% All Trade Vol Of Orders < 50 Ctx ent Prime	Avg Spread Prime Order >= 58 Ctx		%Auto Match With Limit Price	%Auto Match WO Limit Price	Avg Price Improved Auto Match Viith Limit Price	Avg Price Improved Auto Match WO Limit Price	Avg Price Improved Stop Price
2015-11	N	50,578 557.75	9 939%	13.07%	81.99%	46.76%	40.05%	20.26%	\$0.0632	\$ 9.1792	10.41%	0.00%	\$ 0.0369	N/A	\$ 0.0170
	Unrel	ated Order received	I on Agency Sid	e Terminated Aucti	ion .										
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		nt Impre m Part	g Price ovement icipated rade						
2015-11	N	478	123	0	0.02%	0.00%	\$ 0.0012		N/A						
				e Terminated Auctio											
Business Menth	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade	Avg Price Improveme by Same Fi	nt Impre m Part	g Price overnent icipated rade						
2015-11	N	98	17	91	0.00%	0.02%	\$ 0.0059	\$0.	0060						
Unr	elated Limit O	rder received on Co	ontra Side Impre	ved AOC and Term	inated Auction										
Business Month	Mini Option	# Auctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Firm	Improv Partic	Price rement ipated ade						
2015-11	N	2,397	440	1,170	0.07%	0.19%	\$0.0410	\$0.0							
		RFR Crossed N	380 and Termin	sted Auction											
Business	Mini	# Auctions	# Auctions	# Auctions	% Auctions	% Auctions	Avg Price	Avg	Price						
Month	Option		by Same Firm	Participated Trade	Participated by Same Firm	Participated Trade	Improvement by Same Firm	Partic	rement ipated ade						
2015-11	N	2,762	126	2,501	0.02%	0.41%	\$0.0006	\$0.0							
			Quote Lock												
Business	Mini	Buy Agenc	y Buy Agency	Sell Agency	Sell Agend	v # Price	Avn Pri	ice							
Month	Option		e Quote Cross	Order Quote Cross NBB	Order Quo Cross NBC	te Improve									
2015-11	N	1 869	265	243	1,140	2,119	\$ 0.004	7							
		Auctio	n Hall				Auction En	ut.							
Business Month	Mini Option	# Auctions	# Price Improved	Avg Price Improved	% Price Improved Vo	a .	Avg Price Improveme								
2015-11	N	0	0	N/A	N/A		\$ 0.0047								

SR-MIAX-2016-46 Page 78 of 81



Prime Orders

(For the Busines Month : 2015-12)

Business	Mini	Prime	Prime	% Orders	% Orders	% All Trades %	All Trades	% All Trade	% All Traile	Avg Spread	Avg Spread	%Auto	%Auto	Avg Price	Avg Price	Avg Price
Month	Option	Order >=50 Ctx	Order	>= 50 Ctx ant Prime	< 50 Ctx ent Prime	of Orders < 50 Ctx	of Orders	Vol Of Orders < 58 Cts	Vol Of Orders < 50 Ctx ent Prime			Match With Limit Price	Match WO Limit Price	Improved Auto Match With Limit Price	Improved Auto Match WO Limit Price	Improved Stop Price
2015-12	N	50,898	551 717	987%	14.07%	B1.61%	46.20%	39.81%	1958%	\$0.0634	\$ 0.1683	7.68%	0.00%	\$ 0.0420	N/A	\$ 0.0184
	Unre	fated Order	received	on Agency Sid	e Terminated Aucti	on										
Business Month	Mini Option	# Au	ctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade	Avg Pric Improvem by Same F	ent Impre rm Part	g Price overment icipated rade						
2015-12	N	5	62	162	0	0.03%	0.00%	\$ 0.0066		N/A						
	Wasse	11-10-1-			T											
					Terminated Auctio											
Business Month	Mini Option	# Au	etiens	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	". Auctions Participate d Trade	Avg Pric Improvem- by Same F	ent Impre rm Part	g Price overnent icipated rade						
2015-12	N	9	79	18	79	0.00%	0.01%	\$ 0.0084	\$0.	0042						
Unr	elated Limit (Order receiv	ed on Cor	ntra Side Impro	ved AOC and Termi	inated Auction										
Business Month	Mini Option	# Auct	ions i	Auctions by Same	# Auctions Participated Trade	% Auctions Participated	% Auctions Participated	Avg Price Improvement	Avg							
	4.55			Firm	597037. * 03.5303.757265	by Same Firm	Trade	by Same Firm		ipated						
2015-12	N	311		21	60	0.00%	0.01%	\$ 0.0063	\$0.0	1018						
		RFR Cr	ossed NB	80 and Termin	ated Auction											
Business Month	Mini Option	# Auct	ions /	Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Fire		rement ipated						
2015-12	N	2,088	3	86	1,895	0.01%	0.31%	\$ 0.0086	\$0.0							
				Duote Lock												
					-2.2											
Business Month	Mini Option	Ori		Buy Agency Quote Cross NBO	Sell Agency Order Quote Cross NBB	Sell Agenc Order Quo Cross NBO	te Improve									
2015-12	N		1 292	290	294	891	1,792	\$0.00	76							
			Auction	Hall				Auction E								
Business	Mini	н д	uctions	# Price	Avg Price	% Price		Normal Avg Pric	e							
Month 2015-12	Option		0	Improved	Improved N/A	Improved Ve		\$ 0.0052								
2010/12	(1990)			M.	(OLD)	AM		90.0002								

SR-MIAX-2016-46 Page 79 of 81



Prime Orders

(For the Busines Month : 2016-01)

Business Month	Mini Option	Prime Order >= 50 Ctx	Prime Order < 50 Ctx	% Orders >= 50 Ctx ent Prime	% Orders < 50 Ctx ent Prime	of Orders < 58 Ctx	of Orders	% All Trade Vol Of Orders < 50 Cts	% All Trade Vol Of Orders < 50 Ctx ent Prime	Avg Spread Prime Order >= 58 Ctx		%Auto Match With Limit Price	%Auto Match WO Limit Price	Avg Price Improved Auto Match With Limit Price	Avg Price Improved Auto Match WO Limit Price	Avg Price Improved Stop Price
2016-01	N	38,264	402 559	6.64%	9,51%	82.95%	36.95%	40.42%	15.09%	\$0.0736	\$.0.1827	5.84%	0.00%	\$ 0.0459	N/A	\$ 0.0166
	Unre	lated Order	received	on Agency Sid	e Terminated Auctic	in.										
Business Month	Mini Option	# Au	ctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participate d Trade		nt Impre m Parti	Price oversent cipated rade						
2016-01	N	5	41	199	0	0.05%	0.00%	\$ 0.0015		N/A						
	Unre	lated Order	received	on Contra Side	e Terminated Auctio	n										
Business Month	Mini Option		ctions	# Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participased by Same Firm	% Auctions Participate d Trade	Avg Price Improveme by Same Fi	nt Impro m Parti	pPrice oversest cipated rade						
2016-01	N	5	99	27	69	0.01%	0.02%	\$ 0.0033	\$ 0.	0026						
Unre	slated Limit O	rder receive	ed on Con	ntra Side Impro	ved AOC and Termi	nated Auction										
Business Month	Mini Option	# Aucti	ions i	Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Firm		emont pated						
2016-01	N	94		12	43	0.00%	0.01%	\$0.0163	\$ 0.0	034						
		RFR Cr	ossed NBI	80 and Termin	ated Auction											
Business Month	Mini Option	# Aucti		Auctions by Same Firm	# Auctions Participated Trade	% Auctions Participated by Same Firm	% Auctions Participated Trade	Avg Price Improvement by Same Firm		ement pated						
2016-01	N	1,670	3	112	1,474	0.03%	0.33%	\$0.0000	\$00							
				Ouote Lock												
Business Month	Mini Option	Ore		Buy Agency Quote Cross NBO	Sell Agency Order Quote Cross NBB	Sell Agenc Order Quo Cross NBC	te Improve									
2016-01	N		1,054	149	177	767	1,549	\$ 0.009	19							
			Auction	Hall				Auction En	ed.							
Business Month	Mini Option	#A	uctions	# Price Improved	Avg Price Improved	% Price Improved Vo	r	Avg Price Improveme								
	Option			oproved	unbinand	mily over 00		militareme	***							

SR-MIAX-2016-46 Page 80 of 81

EXHIBIT 5

New text is underlined; Deleted text is in [brackets]

MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC Rules

Rule 515A. MIAX Price Improvement Mechanism ("PRIME") and PRIME Solicitation Mechanism

- (a) **Price Improvement Mechanism ("PRIME").** PRIME is a process by which a Member may electronically submit for execution ("Auction") an order it represents as agent ("Agency Order") against principal interest, and/or an Agency Order against solicited interest.
- (1) **Auction Eligibility Requirements**. A Member (the "Initiating Member") may initiate an Auction provided all of the following are met:
- (i) the Agency Order is in a class designated as eligible for PRIME as determined by the Exchange and within the designated Auction order eligibility size parameters as such size parameters are determined by the Exchange; and
- (ii) the Initiating Member must stop the entire Agency Order as principal or with a solicited order at the better of the NBBO or the Agency Order's limit price (if the order is a limit order).
- (iii) With respect to Agency Orders that have a size of less than 50 contracts, if at the time of receipt of the Agency Order, the NBBO has a bid/ask differential of \$0.01, the System will reject the Agency Order.
 - (2) No change.

Interpretations and Policies:

.01 - .07 No change.

.08 <u>Reserved.</u> [The minimum size requirement for PRIME Auctions to start at the NBBO is subject to a Pilot Program ending January 18, 2017. The Exchange will submit certain data, as required by the Commission, to provide supporting evidence that, among other things, there is meaningful competition for all size orders within the PRIME, that there is significant price improvement for all orders executed through the PRIME, and that there is an active and liquid market functioning on the Exchange outside of the PRIME. Any raw data which is submitted to the Commission will be provided on a confidential basis.]

SR-MIAX-2016-46 Page 81 of 81

.09 No change.