# **EXHIBIT 5**

New text is underlined; deleted text is in brackets.

NASDAQ BX, Inc. Rules

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### **Options 3 Options Trading Rules**

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#### Section 7. Types of Orders and Order and Quote Protocols

The Exchange may determine to make certain order types and time-in-force, respectively, available on a class or System basis.

(a) The term "Order" shall mean a single order submitted to the System by a Participant that is eligible to submit such orders. The term "Order Type" shall mean the unique processing prescribed for designated orders that are eligible for entry into the System, and shall include:

(1) - (11) No change.

(12) Block Order. A "Block Order" is an order entered into the Block Order Mechanism as described in Options 3, Section 11(a).

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### Section 11. [Reserved]<u>Auction Mechanisms</u>

For purposes of this Rule, a "broadcast message" means an electronic message that is sent by the Exchange to all Participants, and a "Response" means an electronic message that is sent by Participants in response to a broadcast message. Also for purposes of this Rule, the time given to Participants to enter Responses for any of the below auction mechanisms shall be designated by the Exchange via an Options Trader Alert, but no less than 100 milliseconds and no more than 1 second.

(a) **Block Order Mechanism**. The Block Order Mechanism is a process by which a Participant can obtain liquidity for the execution of block-size orders ("Block Order"). The Block Order Mechanism is for single leg transactions only. Block-size orders are orders for fifty (50) contracts or more.

(1) Upon the entry of an order into the Block Order Mechanism, a broadcast message will be sent that includes the series, and may include price, size and/or side, as specified by the Participant entering the Block Order, and Participants will be given an opportunity to enter Responses with the prices and sizes at which they would be willing to trade with the Block Order.

(2) At the conclusion of the time given to Participants to enter Responses, either an execution will occur automatically, or the Block Order will be cancelled.

(A) Responses, orders, and quotes will be executed at a single block execution price that is the price for the Block Order at which the maximum number of contracts can be executed consistent with the Participant's instruction. Bids (offers) on the Exchange at the time the Block Order is executed that are priced higher (lower) than the block execution price, as well as Responses that are priced higher (lower) than the block execution price, will be executed in full at the block execution price up to the size of the Block Order.

(B) At the block execution price, Public Customer Orders and Public Customer Responses will be executed first in price time priority, and then quotes, non-Public Customer Orders, and non-Public Customer Responses will participate in the execution of the Block Order based upon the percentage of the total number of contracts available at the block execution price that is represented by the size of the quote, non-Public Customer Order, or non-Public Customer Response.

(3) If a trading halt is initiated after an order is entered into the Block Order Mechanism, such auction will be automatically terminated without execution.

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# Section 15. Risk Protections

(a) The following are order risk protections on BX:

(1) **Order Price Protection ("OPP").** OPP is a feature of the System that prevents certain day limit, good til cancelled, and immediate or cancel orders at prices outside of pre-set standard limits from being accepted by the System. OPP applies to all options but does not apply to market orders [or Intermarket Sweep Orders].

(A) OPP is operational each trading day after the opening until the close of trading, except during trading halts. <u>OPP may be temporarily deactivated on an intra-day basis at the Exchange's discretion.</u>

(B) OPP will reject incoming orders that exceed certain parameters according to the following algorithm:

(i) If the better of the NBBO or the internal market BBO (the "Reference BBO") on the contra-side of an incoming order is greater than \$1.00, orders with a limit more than [50% through such contra-side Reference BBO]<u>the greater of the below</u> will <u>cause the</u> <u>order to</u> be rejected by the System upon receipt.

(A) 50% through such contra-side Reference BBO; or

(B) a configurable dollar amount not to exceed \$1.00 through such contra-side Reference BBO as specified by the Exchange announced via an Options Trader Alert. (ii) If the Reference BBO on the contra-side of an incoming order is less than or equal to \$1.00, orders with a limit more than [100% through such contra-side Reference BBO]the greater of the below will cause the order to be rejected by the System upon receipt.

(A) 100% through such contra-side Reference BBO; or

(B) a configurable dollar amount not to exceed \$1.00 through such contra-side Reference BBO as specified by the Exchange announced via an Options Trader <u>Alert.</u>

(2) No change.

(3) Market Wide Risk Protection. All Participants must provide parameters for the order entry and execution rate protections as described herein. The Exchange will also establish default values for each of these parameters that apply to Participants that do not submit the required parameters, and will announce these default values in an Options Trader Alert to be distributed to Participants. The System will maintain one or more counting programs for each Participant that count orders entered and contracts traded on BX. Participants can use multiple counting programs to separate risk protections for different groups established within the Participant. The counting programs will maintain separate counts, over rolling time periods specified by the Participant for each count, of: (1) the total number of orders entered in the order book; and (2) the total number of contracts traded. The minimum and maximum duration of the applicable time period will be established by the Exchange and announced via an Options Trader Alert.

(A) If, during the applicable time period, the Participant exceeds thresholds that it has set for any of the order entry or execution counts described above on BX, the System will automatically reject all subsequent incoming orders entered by the Participant.

(B) Participants may also choose to have the System automatically cancel all of their existing orders on BX when the Market Wide Risk Protection is triggered.

(C) The Market Wide Risk Protection will remain engaged until the Participant manually notifies the Exchange to enable the acceptance of new orders. For Participants that still have open orders on the order book that have not been cancelled pursuant to subparagraph (B) above, the System will continue to allow those Participants to interact with existing orders entered before the protection was triggered, including sending cancel order messages and receiving trade executions for those orders.

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(c) The following are quote risk protections on BX:

(1) **Anti-Internalization.** Quotes and orders entered by Options Market Makers [using the same market participant identifier] will not be executed against quotes and orders entered on the opposite side of the market by the same Market Maker using the same <u>Market Maker</u> identifiers, or alternatively, if selected by the Participant, the same Exchange account <u>number or Participant firm identifier</u>. In such a case, the System will cancel the oldest of the quotes or orders back to the entering party prior to execution. This functionality shall not apply in any auction or during an Opening Process.

### (2) Quotation Adjustments.

(A) Market Makers are required to utilize the Percentage or Volume Threshold, each a Threshold, described in (i) and (ii) below. In addition, Market Makers may utilize the Delta and Vega Thresholds, each a Threshold, described in (iii) and (iv) below. For each of these features, the System will automatically remove a Market Maker's quotes in all series in an options class when any of the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold, as described below, has been exceeded. A Market Maker is required to specify a period of time not to exceed 30 seconds ("Specified Time Period") during which the System will automatically remove a Market Maker's quotes in all series of an options class. The Specified Time Period will commence for an options class every time an execution occurs in any series in such option class and will continue until the System removes quotes as described in paragraphs (B) and (C) below or the Specified Time Period expires. The Specified Time Period operates on a rolling basis among all series in an options class in that there may be Specified Time Periods occurring simultaneously for each Threshold and such Specified Time Periods may overlap. The Specified Time Periods will be the same value for each protection described in (i) - (iv) below.

(i) **Percentage Threshold**. A Market Maker must provide a specified percentage ("Percentage Threshold"), of not less than 1%, by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each series in an options class, the System will determine (1) during a Specified Time Period and for each side in a given series, a percentage calculated by dividing the size of a Market Maker's quote size executed in a particular series (the numerator) by the Marker Maker's quote size available at the time of execution plus the total number of the Market Marker's quote size previously executed during the unexpired Specified Time Period (the denominator) ("Series Percentage"); and (2) the sum of the Series Percentage in the options class ("Issue Percentage") during a Specified Time Period. The System tracks and calculates the net impact of positions in the same options class; long call percentages are offset by short call percentages, and long put percentages are offset by short put percentages in the Issue Percentage. If the Issue Percentage exceeds the Percentage Threshold the System will automatically remove a Market Maker's quotes in all series of the options class during the Specified Time Period.

(ii) **Volume Threshold**. A Market Maker must provide a Volume Threshold by which the System will automatically remove a Market Maker's quotes in all series of an

options class when the Market Maker executes a number of contracts which exceeds the designated number of contracts in all series in an options class.

(iii) **Delta Threshold**. A Market Maker may provide a Delta Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each class of options, the System will maintain a Delta counter, which tracks the absolute value of the difference between (1) purchased call contracts plus sold put contracts and (2) sold call contracts plus purchased put contracts. If the Delta counter exceeds the Delta Threshold established by the Member, the System will automatically remove a Market Maker's quotes in all series of the options class.

(iv) **Vega Threshold**. A Market Maker may provide a Vega Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each class of options, the System will maintain a Vega counter, which tracks the absolute value of purchased contracts minus sold contracts. If the Vega counter exceeds the Vega Threshold established by the Member, the System will automatically remove a Market Maker's quotes in all series of the options class.

[(A) A BX Market Maker may provide a specified time period and a specified percentage (as these terms are defined below) by which the Exchange's System will automatically remove a BX Market Maker's quotes in all series of an underlying security submitted through designated BX protocols, as specified by the Exchange, during a specified time period established by the BX Market Maker not to exceeds 15 seconds ("Percentage-Based Specified Time Period"). For each series in an option, the System will determine: (i) the percentage that the number of contracts executed in that series represents relative to the number of contracts available at the time of execution plus the number of contracts executed in unexpired prior executions of each side in that series ("Series Percentage"); and (ii) the sum of the Series Percentage in the option issue ("Issue Percentage"). The System tracks and calculates the net impact of positions in the same option issue; long call percentages are offset by short call percentages, and long put percentages are offset by short put percentages in the Issue Percentage. If the Issue Percentage, rounded to the nearest integer, equals or exceeds a percentage established by a BX Market Maker, not less than 1% ("Specified Percentage"), the System will automatically remove a BX Market Maker's quotes in all series of the underlying security submitted through designated BX protocols, as specified by the Exchange, during the Percentage-Based Specified Time Period ("Percentage-Based Threshold"). A Percentage-Based Specified Time Period will commence for an option every time an execution occurs in any series in such option and will continue until the System removes quotes as described in (iv) or (v) or the Percentage-Based Specified Time Period expires. A Percentage -Based Specified Time Period operates on a rolling basis among all series in an option in that there may be multiple Percentage-Based Specified Time Periods occurring simultaneously and such Percentage-Based Specified Time periods may overlap.

(B) A BX Market Maker may provide a specified time period and a volume threshold by which the Exchange's System will automatically remove a BX Market Maker's quotes in all series of an underlying security submitted through designated BX protocols, as

specified by the Exchange, during a specified time period established by the BX Market Maker not to exceed 15 seconds ("Volume-Based Specified Time Period") when the BX Market Maker executes a number of contracts which equals or exceeds the designated number of contracts in all options series in an underlying security ("Volume-Based Threshold"). The BX Market Maker's Volume-Based Specified Time Period must be the same length of time as designated for purposes of the Percentage-Based Threshold. A Volume- Based Specified Time Period will commence for an option every time an execution occurs in any series in such option and will continue until the System removes quotes as described in (f)(iv) or (f)(v) or the Volume-Based Specified Time Period expires. The Volume-Based Specified Time Period operates on a rolling basis among all series in an option in that there may be multiple Volume-Based Specified Time Periods occurring simultaneously and such Volume-Based Specified Time periods may overlap.]

([C]B) A BX Market Maker or BX Market Maker Group (multiple affiliated BX Market Makers is a "Group" as defined by a BX Participant and provided by such Participant to the Exchange) may provide a specified time period and number of allowable triggers by which the Exchange will automatically remove quotes in all options series in all underlying issues submitted through designated BX protocols as specified by the Exchange ("Multi-Trigger Threshold"). During a specified time period established by the BX Market Maker not to exceed [15]30 seconds ("Multi-Trigger Specified Time Period"), the number of times the System automatically removes the BX Market Maker's or Group's quotes in all options series will be based on the number of triggers of the Percentage[-Based] Threshold[,] described in paragraph ([f]A)(i) above, [as well as] the Volume[-Based] Threshold described in paragraph ([f]A)(ii) above, the Delta Threshold described in paragraph (A)(iii) above, and the Vega Threshold described in paragraph (A)(iv) above. Once the System determines that the number of triggers [equals or] exceeds a number established by either the BX Market Maker or Group, during a Multi-Trigger Specified Time Period, the System will automatically remove all quotes in all options series in all underlying issues for that BX Market Maker or Group. A trigger is defined as the event which causes the System to automatically remove quotes in all options series in an underlying issue. A Multi-Trigger Specified Time Period will commence after every trigger of [either] the Percentage[-Based] Threshold,[or the] Volume[-Based] Threshold, Delta Threshold, or Vega Threshold, and will continue until the System removes quotes as described in paragraph (C) below [(f)(iv)] or the Multi-Trigger Specified Time Period expires. The System counts triggers within the Multi-Trigger Specified Time Period across all triggers for the BX Market Maker or Group. A Multi-Trigger Specified Time Period operates on a rolling basis in that there may be multiple Multi-Trigger Specified Time Periods occurring simultaneously and such Multi-Trigger Specified Time Periods may overlap.

([D]<u>C</u>) The System will automatically remove quotes in all options in an underlying security when the Percentage[-Based] Threshold,[or] Volume[-Based] Threshold, <u>Delta</u> <u>Threshold</u>, or <u>Vega Threshold</u> has been [reached]<u>exceeded</u>. The System will automatically remove quotes in all options in all underlying securities when the Multi-Trigger Threshold has been [reached]<u>exceeded</u>. The System will send a Purge

Notification Message to the BX Market Maker for all affected options when the above thresholds have been [reached]exceeded.

(i) The Percentage[-Based] Threshold,[or] Volume[-Based] Threshold, <u>Delta</u> <u>Threshold, Vega Threshold</u>, and Multi-Trigger Threshold[,] are considered independently of each other.

(ii) Quotes will be automatically executed up to the BX Market Maker's size regardless of whether the execution exceeds the Percentage[-Based] Threshold, [or] Volume[-Based] Threshold, Delta Threshold, or Vega Threshold.

([E]<u>D</u>) If a BX Market Maker requests the System to remove quotes in all options series in an underlying issue, the System will automatically reset the [Percentage-Based Threshold or Volume-Based] Specified Time Period(s) <u>for the Percentage, Volume,</u> <u>Delta, or Vega Threshold</u>. The Multi-Trigger Specified Time Period(s) will not automatically reset for the Multi-Trigger Threshold.

([F]<u>E</u>) When the System removes quotes as a result of <u>exceeding</u> the Percentage[-Based] Threshold, [or] Volume[-Based] Threshold, <u>Delta Threshold</u>, or <u>Vega Threshold</u>, the BX Market Maker must send a re<u>-</u>entry indicator to re-enter the System. When the System removes quotes as a result of the Multi-Trigger Threshold, the System will not accept quotes through designated protocols until the BX Market Maker manually requests reentry. After quotes are removed as a result of the Multi-Trigger Threshold, Exchange staff must set a re-entry indicator in this case to enable re-entry, which will cause the System to send a Reentry Notification Message to the BX Market Maker for all options series in all underlying issues. The Market Maker's Clearing Firm will be notified regarding the trigger Threshold, provided the Market Maker's Clearing Firm has requested to receive such notification.

([G]<u>F</u>) The Exchange will require BX Market Makers to utilize either the Percentage[-Based] Threshold or the Volume[-Based] Threshold. The <u>Delta, Vega and</u> Multi-Trigger Threshold<u>s</u> [is]<u>are</u> optional.

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#### Section 28. [Reserved]Optional Risk Protections

(a) The following are optional risk protections:

- (1) Notional dollar value per order (quantity x limit price x number of underlying shares);
- (2) Aggregate notional dollar value;
- (3) Quantity per order; and
- (4) <u>Aggregate quantity</u>

(b) Participants may elect one or more of the above optional risk protections by contacting Market Operations and providing a per order and/or daily aggregate value for an order protection. Participants may modify their settings through Market Operations.

(c) The System will reject all incoming aggregated Participant orders through FIX if the value configured by the Participant, for any of the above-referenced risk protections, is exceeded.

(d) If a Participant sets a notional dollar value, a Market Order would not be accepted from that Participant.

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