#### **EXHIBIT 5**

New text is <u>underlined</u>; Deleted text is in [brackets]

### Rules of The NYSE Arca, Inc.

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### **RULE 6 OPTIONS TRADING**

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### Rule 6.87. Obvious Errors and Catastrophic Errors

<u>Unless otherwise stated</u>, the provisions contained within this Rule are applicable to electronic transactions only.

(a) Trades Subject to Review. An OTP Holder or person associated with an OTP Holder may have a trade adjusted or nullified if, in addition to satisfying the procedural requirements of paragraph (b) below, the conditions in paragraph (a)(3), (a)(4), (a)(5) or (a)(6) are satisfied. [Obvious Error Trade Nullification and Price Adjustment Procedures.

The Exchange shall either bust a transaction or adjust the execution price of a transaction that results from an Obvious Error as provided in this rule.]

(1) Definition of Obvious Error. For purposes of this rule only, an Obvious Error will be deemed to have occurred when the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

| Theoretical Price  | Minimum<br>Amount |
|--------------------|-------------------|
| Below \$2          | .25               |
| \$2 to \$5         | .40               |
| Above \$5 to \$10  | .50               |
| Above \$10 to \$20 | .80               |
| Above \$20         | 1.00              |

- (2) Definition of Theoretical Price. For purposes of Rule 6.87(a), the Theoretical Price of an option is:
  - (A) if the series is traded on at least one other options exchange, the last bid price with respect to an erroneous sell transaction and the last offer price with respect to an erroneous buy transaction, just prior to the trade, that comprise the National

- Best Bid/Offer ("NBBO") as disseminated by the Options Price Reporting Authority ("OPRA"); or
- (B) if there are not quotes for comparison purposes, or if the bid/ask differential of the national best bid and offer for the affected series just prior to the erroneous transaction was at least two times the permitted bid/ask differential pursuant to Rule 6.37(b)(1)(A)-(E), as determined by a designated Trading Official.
- (3) [Obvious Error Procedure. The Exchange shall administer the application of this Rule as follows:
  - (A) Notification. If a Market Maker believes that it participated in a transaction that may be subject to adjustment or nullification pursuant to subsections (a)(1)-(5) of this Rule, it must notify the Exchange within five (5) minutes of the execution. If an OTP Holder or OTP Firm not serving as a Market Maker believes that an order it executed may be subject to adjustment or nullification pursuant to subsections (a)(1)-(5) of this Rule, it must notify the Exchange within twenty (20) minutes of the execution. Except where noted in section (B), (C)(iii) or (C)(iv) or absent unusual circumstances, the Exchange will not grant relief under this Rule unless notification is made within the prescribed time periods.
  - (B) Procedures for Reviewing Trades on Exchange Motion. In the interest of maintaining a fair and orderly market and for the protection of investors, the Chief Executive Officer of NYSE Arca Inc. ("CEO") or designee thereof, who is an officer of the Exchange (collectively "Exchange officer"), may, on his or her own motion or upon request, determine to review any transaction occurring on the Exchange that is believed to be erroneous. A transaction reviewed pursuant to this new provision may be nullified or adjusted only if it is determined by the Exchange officer that the transaction is erroneous as provided in Rule 6.87(a)(1)-(5), or Commentary .04 thereof. A transaction would be adjusted or nullified in accordance with the provision under which it is deemed an erroneous transaction. The Exchange officer may be assisted by a Trading Official in reviewing a transaction.

The Exchange officer shall act pursuant to this paragraph as soon as possible after receiving notification of the transaction, and ordinarily would be expected to act on the same day as the transaction occurred. In no event shall the Exchange officer act later than 9:30 a.m. (ET) on the next trading day following the date of the transaction in question. An OTP Holder affected by a determination to nullify or adjust a transaction pursuant to this subsection (B) may appeal such determination in accordance with Rule 6.87(a)(6); however, a determination by an Exchange officer not to review a transaction, or a determination not to nullify or adjust a transaction for which a review was requested or conducted, is not appealable. If a transaction is reviewed and a determination is rendered pursuant to Rules 6.87(a)(1)-(5), or Commentary .04 thereof, no additional relief may be granted under this new provision.

- (C)] Adjust or Bust. The Exchange will determine whether there was an Obvious Error as defined above. If it is determined that an Obvious Error has occurred, the Exchange shall take one of the following actions listed below. Upon taking final action, the Exchange shall promptly notify both parties to the trade.
  - (A[i]) Where each party to the transaction is a Market Maker The execution price of the transaction will be adjusted by the Exchange to the prices provided in paragraphs (i[aa]) and (ii[bb]) below unless both parties agree to adjust the transaction to a different price or agree to bust the trade within ten (10) minutes of being notified by the Exchange of the Obvious Error.
  - (<u>i</u>[aa]) Erroneous buy transactions will be adjusted to their Theoretical Price: plus \$.15 if the Theoretical Price is under \$3 and plus \$.30 if the Theoretical Price is at or above \$3.
  - (<u>ii</u>[bb]) Erroneous sell transactions will be adjusted to their Theoretical Price: minus \$.15 if the Theoretical Price is under \$3 and minus \$.30 if the Theoretical Price is at or above \$3.
  - (<u>B</u>[ii]) Where at least one party to the Obvious Error is not a Market Maker. The trade will be busted by the Exchange unless both parties agree to an adjustment price for the transaction within thirty (30) minutes of being notified by the Exchange of the Obvious Error.
  - (C[iii]) Obvious Errors occurring on the opening between a Market Maker and a Customer. After the twenty minute notification period as described in (b)(1) [(3)(A)] below [above] and until 4:30 p.m. eastern time ("ET") on the subject trade date, a Customer who is party to an Obvious Error transaction may request review of the subject transaction, and the execution price of the transaction will be adjusted (provided the adjustment does not violate the Customer limit price) by Trading Officials to the prices provided in Paragraphs (3)(A)(i) [(aa)] and (3)(A)(ii) [(bb)] above, without the adjustment penalty, unless both parties agree to adjust the transaction to a different price or agree to bust the trade within thirty (30) minutes of being notified by Trading Officials of the Obvious Error. The option contract quantity of any adjustment with respect to an erroneous sell (buy) transaction shall not exceed the disseminated bid (offer) size [at the time of the Obvious Error,] by the competing options exchange(s) that comprise the National Best Bid (Offer) as disseminated by OPRA at the time of the Obvious Error [has the most liquidity in that option class in the previous two calendar months].
  - (D[iv]) Transactions occurring on the opening between a Customer and a non-Market Maker: After the twenty minute notification period as described in (b)(1) [(3)(A)] below [above] and until 4:30 p.m. ET on the subject trade date, where parties to the transaction are a Customer and a non-Market-Maker(s), the Customer may request review of the subject transaction and, the execution

price of the transaction will be adjusted (provided the adjustment does not violate the non-Market Maker's limit price) by Trading Officials to the prices provided in Paragraphs (3)(A)(i) [(aa)] and (3)(A)(ii) [(bb)] above, without the adjustment penalty, unless both parties agree to adjust the transaction to a different price or agree to bust the trade within thirty (30) minutes of being notified by Trading Officials of the Obvious Error. The option contract quantity of any adjustment with respect to an erroneous sell (buy) transaction shall not exceed the disseminated bid (offer) size [at the time of the Obvious Error,] by the competing options exchange(s) that comprise the National Best Bid (Offer) as disseminated by OPRA at the time of the Obvious Error [has the most liquidity in that option class in the previous two calendar months].

(4) Erroneous Print in Underlying <u>or Related Instrument</u>: An electronic trade resulting from an erroneous print disseminated [by the underlying market] <u>in a designated underlying or related instrument</u> which is later cancelled or corrected [by that underlying market] may be <u>adjusted or nullified in the same manner and subject to the same conditions as that set forth in paragraph (a)(3) above for <u>Obvious Errors</u>. In order to be <u>adjusted or nullified</u>, however, the trade must be the result of an erroneous print that is higher or lower than the average trade in [the underlying security] <u>such instrument</u> during a two-minute period before and after the erroneous print by an amount at least five times greater than the average quote width for such [underlying security] <u>instrument</u> during the same period.</u>

# For purposes of this paragraph (4):

- (A) The underlying or related instrument(s) (which may include the underlying or related ETF(s), HOLDRS(s) and/or index value(s), and/or related futures product(s)) and the relevant market(s) shall be designated by the Exchange and announced to OTP Holders via Regulatory Bulletin. To qualify for consideration as a "related instrument," the ETF, HOLDRS or index option class and related instrument must be derived from or designed to track the same underlying index.
- (B) For purposes of an equity, ETF, HOLDRS or futures product [this Rule], the average trade in the underlying [security] or related instrument shall be determined by adding the prices of each trade during the four minute time period referenced above (excluding the trade in question) and dividing by the number of trades during such time period (excluding the trade in question). [For purposes of this Rule,] [t]The average quote width shall be determined by adding the quote widths of sample quotations at regular 15-second intervals [each separate quote] during the four minute time period referenced above (excluding the quote in question) and dividing by the number of sample quotations [quotes] during such time period (excluding the quote in question).
- (C) For purposes of an index value, the above-references to "average trade" and "average quote width" shall mean the average index value and the index range.

The average index value shall be determined by adding the index values reported during the four minute time period referenced above (excluding the index value in question) and dividing by the number of index values reported during such time period (excluding the index value in question). The index range shall be the difference between the highest and lowest index values during the four minute time period referenced above (excluding the index value in question).

(5) Erroneous Quote in Underlying or Related Instrument: Electronic trades [(this provision has no applicability to trades executed in open outcry)] resulting from an erroneous quote in [the] a designated underlying [security] or related instrument may be adjusted or nullified in the same manner and subject to the same conditions as that [as] set forth in paragraph (a)(3) above for Obvious Errors. An erroneous quote occurs when the underlying [security] or related instrument has a width of at least \$1.00 and has a width at least five times greater than the average quote width for such underlying security or related instrument on the relevant [primary] market [(as defined in Rule 6.1(b)(27))] during the time period encompassing two minutes before and after the dissemination of such quote. [For purposes of this Rule, the average quote width shall be determined by adding the quote widths of each separate quote during the four minute time period referenced above (excluding the quote in question) and dividing by the number of quotes during such time period (excluding the quote in question).]

# For purposes of this paragraph (5):

- (A) The underlying or related instrument(s) (which may include the underlying or related ETF(s), HOLDRS(s) and/or index value(s), and/or related futures product(s)) and the relevant market(s) shall be designated by the Exchange and announced to OTP Holders via Regulatory Bulletin. To qualify for consideration as a "related instrument," the ETF, HOLDRS or index option class and related instrument must be derived from or designed to track the same underlying index.
- (B) The average quote width shall be determined by adding the quote widths of sample quotations at regular 15-second intervals during the four minute time period referenced above (excluding the quote in question) and dividing by the number of quotes during such time period (excluding the quote in question).
- (6) No Bid Series: Electronic transactions in series quoted no bid on the Exchange will be nullified provided:
  - (A) the bid in that series immediately preceding the execution was, and for five seconds prior to the execution remained, zero; and
  - (B) at least one strike price below (for calls) or above (for puts) in the same options class was quoted no bid at the time of execution.

For purposes of (A) and (B) above, bids and offers of the parties to the subject trade that are in any of the series in the same options class shall not be considered. In addition, each group of series in an options class with a non-standard deliverable will be treated as a separate options class.

### [Review Procedures.

- (A) If a party to an obvious error determination pursuant to subsection (3) of this Rule requests within the time permitted below, the Obvious Error Panel ("OE Panel") will review decisions made by the Exchange under this subsection (4), including whether an obvious error occurred and whether the correct action was made pursuant to subsection (3).
  - (i) The OE Panel will be comprised of the NYSE Arca Chief Regulatory Officer ("CRO"), or a designee of the CRO, and a representative from two (2) different OTP Firms. One representative on the OE Panel will be from an OTP Firm directly engaged in market making activities and one representative on the OE Panel will be from an OTP Firm directly engaged in the handling of options orders for public customers.
  - (ii) The Exchange shall designate at least ten (10) OTP Firm representatives to be called upon to serve on the OE Panel as needed. In no case shall an OE Panel include a person related to a party to the trade in question. To the extent reasonably possible, the Exchange shall call upon the designated representatives to participate in an OE Panel on an equally frequent basis.
- (B) A request for review on appeal must be made via facsimile or e-mail within thirty (30) minutes after the party making the appeal is given notification of the initial determination being appealed. The OE Panel shall review the facts and render a decision within the time frame prescribed by the Exchange.
- (C) The OE Panel may overturn or modify an action taken by the Exchange under this Rule. All determinations by the OE Panel shall constitute final action by the Exchange on the matter at issue.
- (D) If the OE Panel votes to uphold the decision made pursuant to Rule 6.87(a)(3), the Exchange will assess a \$500.00 fee against the party or parties who initiated the request for appeal.]
- (b) Procedures for Reviewing Transactions.
  - (1) Notification. If a Market Maker believes that it participated in a transaction that may be subject to adjustment or nullification pursuant to paragraphs (a)(3), (a)(4), (a)(5) or (a)(6) of this Rule, it must notify the Exchange within five (5) minutes of the execution. If an OTP Holder or OTP Firm not serving as a Market Maker believes that an order it executed may be subject to adjustment or nullification

pursuant to paragraphs (a)(3), (a)(4), (a)(5) or (a)(6) of this Rule, it must notify the Exchange within twenty (20) minutes of the execution. Except where noted in paragraphs (b)(2), (a)(3)(C) or (a)(3)(D) or absent unusual circumstances, the Exchange will not grant relief under this Rule unless notification is made within the prescribed time periods.

- (2) Review and Determination. Once a party to a transaction has applied for review, the transaction shall be reviewed and a determination rendered, unless both parties to the transaction agree to withdraw the application for review prior to the time a decision is rendered.
- (3) Procedures for Reviewing Trades on Exchange Motion. In the interest of maintaining a fair and orderly market and for the protection of investors, the Chief Executive Officer of NYSE Arca, Inc. ("CEO") or designee thereof, who is an officer of the Exchange (collectively "Exchange officer"), may, on his or her own motion or upon request, determine to review any transaction occurring on the Exchange that is believed to be erroneous. A transaction reviewed pursuant to this provision may be nullified or adjusted only if it is determined by the Exchange officer that the transaction is erroneous as provided in Rule 6.87(a)(3), (a)(4), (a)(5) or (a)(6). A transaction would be adjusted or nullified in accordance with the provision under which it is deemed an erroneous transaction. The Exchange officer may be assisted by a Trading Official in reviewing a transaction.

The Exchange officer shall act pursuant to this paragraph as soon as possible after receiving notification of the transaction, and ordinarily would be expected to act on the same day as the transaction occurred. In no event shall the Exchange officer act later than 9:30 a.m. (ET) on the next trading day following the date of the transaction in question. An OTP Holder affected by a determination to nullify or adjust a transaction pursuant to this paragraph (3) may appeal such determination in accordance with Rule 6.87(c); however, a determination by an Exchange officer not to review a transaction, or a determination not to nullify or adjust a transaction for which a review was requested or conducted, is not appealable. If a transaction is reviewed and a determination is rendered pursuant to Rules 6.87(a)(3), (a)(4), (a)(5) or (a)(6), no additional relief may be granted under this provision.

## (c) Obvious Error Panel.

- (1) If a party to a determination pursuant to paragraph (b)(2) of this Rule requests within the time permitted under paragraph (c)(2) below, the Obvious Error Panel ("OE Panel") will review decisions made by the Exchange under this Rule, including whether an Obvious Error occurred and whether the correct action was made pursuant to paragraphs (a)(3)-(6) of the Rule.
  - (A) The OE Panel will be comprised of the NYSE Arca Chief Regulatory Officer ("CRO"), or a designee of the CRO, and a representative from two (2) different

OTP Firms. One representative on the OE Panel will be from an OTP Firm directly engaged in market making activities and one representative on the OE Panel will be from an OTP Firm directly engaged in the handling of options orders for public customers.

- (B) The Exchange shall designate at least ten (10) OTP Firm representatives to be called upon to serve on the OE Panel as needed. In no case shall an OE Panel include a person related to a party to the trade in question. To the extent reasonably possible, the Exchange shall call upon the designated representatives to participate in an OE Panel on an equally frequent basis.
- (2) A request for review on appeal must be made via facsimile or e-mail within thirty (30) minutes after the party making the appeal is given notification of the initial determination being appealed. The OE Panel shall review the facts and render a decision within the time frame prescribed by the Exchange.
- (3) The OE Panel may overturn or modify an action taken by the Exchange under this Rule. All determinations by the OE Panel shall constitute final action by the Exchange on the matter at issue.
- (4) If the OE Panel votes to uphold the decision made pursuant to Rule 6.87(b)(2), the Exchange will assess a \$500.00 fee against the party or parties who initiated the request for appeal.
- (d) Catastrophic Error Price Adjustment Procedures

The Exchange shall adjust the execution price of a transaction that results from a Catastrophic Error as provided in this rule.

(1) Catastrophic Error. For purposes of Rule 6.87([b]d), a Catastrophic Error will be deemed to have occurred when the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the minimum amount shown below:

| Theoretical Price   | Minimum<br>Amount |
|---------------------|-------------------|
| Below \$2           | \$1               |
| \$2 to \$5          | \$2               |
| Above \$5 to \$10   | \$5               |
| Above \$10 to \$50  | \$10              |
| Above \$50 to \$100 | \$20              |
| Above \$100         | \$30              |

- (2) *Theoretical Price*. For purposes of Rule 6.87[(b]d), the Theoretical Price of an option is:
  - (A) if the series is traded on at least one other options exchange, the last bid price with respect to an erroneous sell transaction and the last offer price with respect to an erroneous buy transaction, just prior to the trade, that comprise the [National Best Bid/Offer ("]NBBO[")] as disseminated by [the Options Price Reporting Authority ("]OPRA[")]; or
  - (B) if there are not quotes for comparison purposes, <u>or if the bid/ask differential of the NBBO for the affected series just prior to the erroneous transaction was at least two times the permitted bid/ask differential pursuant to Rule 6.37(b)(1)(A)-(E), as determined by a designated Trading Official.</u>
- (3) Catastrophic Error Procedure. The Exchange shall administer the application of Rule 6.87([b]d) as follows:
  - (A) Notification. If an OTP Holder believes that it participated in a transaction that qualifies as a Catastrophic Error pursuant to paragraph ([b]d)(1) above, it must notify the Exchange by 8:30 am ET, on the first trading day following the date of the Catastrophic Error. For such transactions in an expiring options series that take place on an expiration day, an OTP Holder must notify the Exchange by 5:00 pm ET that same day. Relief will [not] only be granted under this paragraph: (i) [unless] if notification is made within the prescribed time period; and (ii) if an [Obvious Error] OE Panel has not previously rendered a decision with respect to the transaction(s) in question pursuant to Rule 6.87(c)[(a)(4)].
  - (B) Catastrophic Error Determination. A Catastrophic Error Review Panel (<u>"Panel"</u>) will determine whether the transaction(s) qualify[ies] as a Catastrophic Error. If it is determined that a Catastrophic Error has occurred, the Panel will instruct the Exchange to adjust the execution price(s) of the transaction(s) according to subparagraph (D) below. If it is determined that a Catastrophic Error has not occurred, the OTP Holder will be subject to a charge of \$5,000. All determinations by the [Catastrophic Error Review] Panel shall constitute final Exchange action on the matter at issue.
  - (C) Catastrophic Error Review Panel. The Panel shall be comprised of the [NYSE Arca Chief Regulatory Officer ("]CRO[")], or a designee of the CRO, and a representative from two (2) different OTP Firms. One representative on the Panel will always be from an OTP Firm directly engaged in market making activities, and one representative on the Panel will always be from an OTP Firm directly engaged in the handling of options orders for public customers.
  - The Exchange shall designate at least ten (10) OTP Firm representatives to be called upon to serve on the Panel as needed. In no case shall a Panel include a person related to a party to the trade in question. To the extent reasonably

possible, the Exchange shall call upon the designated representatives to participate in a Panel on an equally-frequent basis.

(D) Adjustment. If it is determined that a Catastrophic Error has occurred, unless both (all) parties agree to adjust the transaction to a different price, the execution price(s) of the transaction(s) will be adjusted to the theoretical price, (i) plus the adjustment value provided below for erroneous buy transactions, and (ii) minus the adjustment value provided for erroneous sell transactions.

|                     | [Minimum]<br><u>Adjustment</u> |
|---------------------|--------------------------------|
| Theoretical Price   | Amount                         |
| Below \$2           | \$1                            |
| \$2 to \$5          | \$2                            |
| Above \$5 to \$10   | \$3                            |
| Above \$10 to \$50  | \$5                            |
| Above \$50 to \$100 | \$7                            |
| Above \$100         | \$10                           |

## **Commentary:**

- **.01** All determinations made by the Exchange under <u>paragraph</u> (b) or <u>paragraph</u> (d)(3) [subsection (a)(3) or (b)(3)] will be rendered without prejudice as to the rights of the parties to the transaction to submit a dispute to arbitration.
- .02 For purposes of this rule an "erroneous sell transaction" is one in which the price received by the person selling the option is erroneously low by amounts at least equal to the minimum amount described in subsection (a)(1) for Obvious Errors and subsection ( $\underline{d}[b]$ )(1) for Catastrophic Errors. An "erroneous buy transaction" is one in which the price paid by the person buying the option is erroneously high by amounts at least equal to the minimum amount described in subsection (a)(1) for Obvious Errors and subsection ( $\underline{d}[b]$ )(1) for Catastrophic Errors.
- .03 When the Exchange determines that an Obvious Error or Catastrophic Error has occurred and action is warranted under paragraph (b) or paragraph (d)(3) [subsection (a)(3) or subsection (b)(3)] above, the identity of the parties to the trade will be disclosed to each other in order to encourage conflict resolution.
- **.04** <u>Reserved.</u> [Buyers of options with a zero bid may request that their execution be busted if at least one strike below (for calls) or above (for puts) in the same options class was quoted with a zero

bid at the time of the execution. Such buyers must follow the procedures of Rule 6.87(a)(3) above.]

**.05** – **.06** No Change.

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# Rule 6.89. Erroneous Trades due to System Disruptions and Malfunctions

- (a) Verifiable Disruptions or Malfunctions of Exchange Systems.
  - (1) Electronic or open outcry transactions arising out of a "verifiable disruption or malfunction" in the use or operation of any Exchange dissemination, execution, or communication system may either be nullified or adjusted by Trading Officials. Transactions that qualify for price adjustment will be adjusted in accordance with the guidelines contained in [sections (a)(3)(C)(i)(aa)-(bb)] paragraphs (a)(3)(C)(A)(i)-(ii) of Rule 6.87.
  - (2) (3) No change.
- (b) No change.

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