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| Page 1 of * <input type="text" value="33"/> | SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4 | File No.* SR - <input type="text" value="2020"/> - * <input type="text" value="089"/> | Amendment No. (req. for Amendments *) <input type="text"/> |
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Filing by The Nasdaq Stock Market LLC
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

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| Initial * <input checked="" type="checkbox"/> | Amendment * <input type="checkbox"/> | Withdrawal <input type="checkbox"/> | Section 19(b)(2) * <input type="checkbox"/> | Section 19(b)(3)(A) * <input checked="" type="checkbox"/> | Section 19(b)(3)(B) * <input type="checkbox"/> |
| | | | Rule | | |
| Pilot <input type="checkbox"/> | Extension of Time Period for Commission Action * <input type="checkbox"/> | Date Expires * <input type="text"/> | <input type="checkbox"/> 19b-4(f)(1) | <input type="checkbox"/> 19b-4(f)(4) | |
| | | | <input type="checkbox"/> 19b-4(f)(2) | <input type="checkbox"/> 19b-4(f)(5) | |
| | | | <input type="checkbox"/> 19b-4(f)(3) | <input checked="" type="checkbox"/> 19b-4(f)(6) | |

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| Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010 | Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934 |
| Section 806(e)(1) * <input type="checkbox"/> | Section 806(e)(2) * <input type="checkbox"/> |
| Section 3C(b)(2) * <input type="checkbox"/> | |

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| Exhibit 2 Sent As Paper Document <input type="checkbox"/> | Exhibit 3 Sent As Paper Document <input type="checkbox"/> |
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Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked *).

A proposal to no longer implement the OTTO protocol

Contact Information

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

| | |
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| First Name * <input type="text" value="Angela"/> | Last Name * <input type="text" value="Dunn"/> |
| Title * <input type="text" value="Principal Associate General Counsel"/> | |
| E-mail * <input type="text" value="angela.dunn@nasdaq.com"/> | |
| Telephone * <input type="text" value="(215) 496-5692"/> | Fax <input type="text"/> |

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934,

has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

(Title *)

| | |
|---|-----------------------------|
| Date <input type="text" value="12/15/2020"/> | EVP and Chief Legal Counsel |
| By <input type="text" value="John Zecca"/> <small>(Name *)</small> | |

NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

Form 19b-4 Information *

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

Exhibit 1 - Notice of Proposed Rule Change *

Add Remove View

The Notice section of this Form 19b-4 must comply with the guidelines for publication 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 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)

Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies *

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The Notice section of this Form 19b-4 must comply with the guidelines for publication 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 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, Transcripts, Other Communications

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

Exhibit 3 - Form, Report, or Questionnaire

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Exhibit Sent As Paper Document

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 referred to by the proposed rule change.

Exhibit 4 - Marked Copies

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

Exhibit 5 - Proposed Rule Text

Add Remove View

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes 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 of the proposed rule change.

Partial Amendment

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If the self-regulatory organization is amending only part of the text of a lengthy 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.

1. Text of the Proposed Rule Change

(a) The Nasdaq Stock Market LLC (“Nasdaq” or “Exchange”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder,² is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposal to remove the protocol “Ouch to Trade Options” or “OTTO” from The Nasdaq Options Market LLC (“NOM”) Rulebook. The Exchange previously delayed its implementation of the OTTO protocol; the Exchange will no longer implement the OTTO protocol.

A notice of the proposed rule change for publication in the Federal Register is attached as Exhibit 1.

The text of the proposed rule change is attached as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by senior management of the Exchange pursuant to authority delegated by the Board of Directors of the Exchange (the “Board”) on November 5, 2020. Exchange staff will advise the Board of any action taken pursuant to delegated authority. No other action is necessary for the filing of the rule change.

Questions and comments on the proposed rule change may be directed to:

Angela Saccomandi Dunn
Principal Associate General Counsel
Nasdaq, Inc.
215-496-5692

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

3. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

a. Purpose

NOM’s proposal seeks to remove the protocol “Ouch to Trade Options” or “OTTO” from The Nasdaq Options Market LLC (“NOM”) Rulebook. The Exchange previously delayed its implementation of the OTTO protocol; the Exchange will no longer implement the OTTO protocol.

Background

Nasdaq filed a rule change³ which adopted a new protocol “Ouch to Trade Options” or “OTTO”⁴ and proposed to rename and modify the current OTTO protocol as “Quote Using Orders” or “QUO.”⁵ The Exchange subsequently filed a rule change to

³ See Securities Exchange Act Release No. 83888 (August 20, 2018), 83 FR 42954 (August 24, 2018) (SR-NASDAQ-2018-069) (“Prior Rule Change”). In the Prior Rule Change the Exchange stated that it would issue an Options Trader Alert introducing the new OTTO protocol in Q4 of 2018. The rule numbers were amended in 2019 when the Rulebook was relocated. See Securities Exchange Act Release No. 87778 (December 17, 2019), 84 FR 70590 (December 23, 2019) (SR-NASDAQ-2019-098).

⁴ As modified by the Prior Rule Change, OTTO is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders to and from the Exchange. Features include the following: (1) options symbol directory messages (e.g., underlying); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; and (6) risk protection triggers and cancel notifications. See NOM Rules at Options 3, Section 7(d)(1)(C).

⁵ QUO is an interface that allows NOM Market Makers to connect, send, and receive messages related to single-sided orders to and from the Exchange. Order Features include the following: (1) options symbol directory messages (e.g., underlying); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; and (6) risk protection triggers and cancel notifications. Orders submitted by NOM Market Makers over this interface are treated as quotes. See Options 3, Section 7(d)(1)(D).

amend Options 3, Section 18, titled “Detection of Loss of Communication” which describes the impact to NOM protocols in the event of a loss of a communication. The Exchange accounted for both the new OTTO and renamed and modified QUO within this rule. Similarly, the Exchange amended Options 3, Section 8, “Nasdaq Opening and Halt Cross” to account for the new OTTO and renamed and modified QUO within this rule. Finally, the Exchange amended Options 3, Section 23, “Data Feeds and Trade Information” to amend “OTTO DROP” to “QUO DROP” and noted within Options 3, Section 15(a)(1) related to Order Price Protection rule or “OPP” that OPP shall not apply to orders entered through QUO.⁶

Both the Prior Rule Change and the Subsequent Rule Change indicated the aforementioned rule changes would be implemented for QUO and OTTO in Q4 of 2018 with the date announced via an Options Traders Alert. The Exchange filed a rule change implementing QUO and delaying the introduction of the OTTO functionality until Q3 2019 by announcing the date of implementation via an Options Traders Alert.⁷ The Exchange further delayed the implementation of OTTO functionality until Q3 2019 and

⁶ See Securities Exchange Act Release No. 84559 (November 9, 2018), 83 FR 57774 (November 16, 2018) (SR-NASDAQ-2018-085) (“Subsequent Rule Change”).

⁷ See Securities Exchange Act Release No. 84723 (December 4, 2018), 83 FR 63692 (December 11, 2018) (SR-NASDAQ-2018-097). The Exchange proposed to immediately implement QUO as of the effectiveness of SR-NASDAQ-2018-097 and delay the implementation of OTTO by issuing an Options Trader Alert announcing the implementation date in Q1 2019. The QUO implementation became effective upon filing on November 26, 2018.

then Q2 2020, respectively.⁸ The last rule change filed with the Commission delayed the implementation of OTTO functionality until Q2 2021 due to market events.⁹

Proposal

At this time, NOM has determined not to implement the OTTO protocol and proposes to remove references to the OTTO protocol within its Rulebook. As noted above, the Exchange delayed the introduction of the OTTO functionality initially until Q3 2019.¹⁰ The Exchange then further delayed the implementation of OTTO functionality until Q3 2019 and then Q2 2020, respectively.¹¹ There were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol after the first two delays. The last rule change filed with the Commission delayed the implementation of OTTO functionality until Q2 2021 due to market events.¹² Nasdaq was considering enhancing OTTO features to provide Participants with other capabilities

⁸ See Securities Exchange Act Release Nos. 85386 (March 21, 2019), 84 FR 11597 (March 27, 2019) (SR-NASDAQ-2019-016); and 87160 (September 30, 2019), 84 FR 53186 (October 4, 2019) (SR-NASDAQ-2019-078).

⁹ See Securities Exchange Act Release Nos. 89077 (June 16, 2020), 85 FR 37486 (June 22, 2020) (SR-NASDAQ-2020-031).

¹⁰ See Securities Exchange Act Release No. 84723 (December 4, 2018), 83 FR 63692 (December 11, 2018) (SR-NASDAQ-2018-097). The Exchange proposed to immediately implement QUO as of the effectiveness of SR-NASDAQ-2018-097 and delay the implementation of OTTO by issuing an Options Trader Alert announcing the implementation date in Q1 2019. The QUO implementation became effective upon filing on November 26, 2018.

¹¹ See Securities Exchange Act Release Nos. 85386 (March 21, 2019), 84 FR 11597 (March 27, 2019) (SR-NASDAQ-2019-016); and 87160 (September 30, 2019), 84 FR 53186 (October 4, 2019) (SR-NASDAQ-2019-078).

¹² See Securities Exchange Act Release Nos. 89077 (June 16, 2020), 85 FR 37486 (June 22, 2020) (SR-NASDAQ-2020-031).

that are currently not offered with OTTO, in the area of risk enhancements.¹³ Nasdaq has discussed certain enhancements with Participants. The Exchange notes that it did not have a large number of Participants interested in the enhancements it was considering.

There are differences as between the current order entry FIX offering and the delayed OTTO offering. The OTTO offering included options symbol directory messages (e.g., underlying); system event messages (e.g., start of trading hours messages and start of opening); and trading action messages (e.g., halts and resumes). The options symbol directory messages,¹⁴ system event messages and trading action messages may also be obtained through market data feeds offered by the Exchange.¹⁵ Also, OTTO would not offer the ability to route, unlike FIX which does offer the ability to route orders.

The Exchange notes that other Nasdaq markets offer only one order entry protocol.¹⁶ Both Phlx and BX offer only one quoting protocol, SQF, on those markets.

At this time, in light of conversations with Participants, Nasdaq proposes to remove the OTTO protocol from its Rulebook and not implement this protocol. NOM

¹³ Of those firms interested in the OTTO protocol in 2018, a very low number of firms were non-market making firms. As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers.

¹⁴ Further, FIX permits Participants to define their orders utilizing industry-wide canonical information (e.g. underlying, put/call and strike information) as compared to OTTO which would require a Participant to read symbol directory messages and send orders with Exchange specific instrument IDs.

¹⁵ See Options 3, Section 23 for descriptions of the Nasdaq ITCH to Trade Options (“ITTO”) and Best of Nasdaq Options (“BONO”) data feeds. System event messages (e.g., start of trading hours messages and start of opening); and trading action messages (e.g., halts and resumes) are available on both of these data feeds.

¹⁶ Nasdaq Phlx LLC (“Phlx”) and Nasdaq BX, Inc. (“BX”) only offer the FIX protocol for order entry.

will continue to offer QUO, in addition to its FIX¹⁷ and SQF¹⁸ protocols. The Exchange proposes to make conforming changes to the Rulebook to eliminate references to OTTO.

b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,¹⁹ in general, and furthers the objectives of Section 6(b)(5) of the Act,²⁰ in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. While the Exchange will no longer implement the OTTO functionality, it will continue to offer the FIX, QUO, and SQF protocols on NOM.

¹⁷ “Financial Information eXchange” or “FIX” is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders to and from the Exchange. Features include the following: (1) execution messages; (2) order messages; and (3) risk protection triggers and cancel notifications. See Options 3, Section 7(d)(1)(A).

¹⁸ “Specialized Quote Feed” or “SQF” is an interface that allows Market Makers to connect, send, and receive messages related to quotes and Immediate-or-Cancel Orders into and from the Exchange. Features include the following: (1) options symbol directory messages (e.g. underlying instruments); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) quote messages; (6) Immediate-or-Cancel Order messages; (7) risk protection triggers and purge notifications; and (8) opening imbalance messages. The SQF Purge Interface only receives and notifies of purge request from the Market Maker. Market Makers may only enter interest into SQF in their assigned options series. See Options 3, Section 7(d)(1)(B).

¹⁹ 15 U.S.C. 78f(b).

²⁰ 15 U.S.C. 78f(b)(5).

As noted above, the Exchange delayed the introduction of the OTTO functionality initially until Q3 2019.²¹ The Exchange then further delayed the implementation of OTTO functionality until Q3 2019 and then Q2 2020, respectively.²² There were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol after the first two delays. The last rule change filed with the Commission delayed the implementation of OTTO functionality until Q2 2021 due to market events.²³ Nasdaq was considering enhancing OTTO features to provide Participants with other capabilities that are currently not offered with OTTO, in the area of risk enhancements.²⁴ Nasdaq has discussed certain enhancements with Participants.²⁵ The Exchange notes that it did not have a large number of Participants interested in the enhancements it was considering. At this time, in light of conversations with Participants, Nasdaq proposes to remove the OTTO protocol from its Rulebook and not implement this protocol.

²¹ See Securities Exchange Act Release No. 84723 (December 4, 2018), 83 FR 63692 (December 11, 2018) (SR-NASDAQ-2018-097). The Exchange proposed to immediately implement QUO as of the effectiveness of SR-NASDAQ-2018-097 and delay the implementation of OTTO by issuing an Options Trader Alert announcing the implementation date in Q1 2019. The QUO implementation became effective upon filing on November 26, 2018.

²² See Securities Exchange Act Release Nos. 85386 (March 21, 2019), 84 FR 11597 (March 27, 2019) (SR-NASDAQ-2019-016); and 87160 (September 30, 2019), 84 FR 53186 (October 4, 2019) (SR-NASDAQ-2019-078).

²³ See Securities Exchange Act Release Nos. 89077 (June 16, 2020), 85 FR 37486 (June 22, 2020) (SR-NASDAQ-2020-031).

²⁴ Of those firms interested in the OTTO protocol in 2018, a very low number of firms were non-market making firms. As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers.

²⁵ The Exchange notes that it did not have a large number of Participants interested in the enhancements it was considering.

As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers. NOM Market Makers may elect to utilize either the SQF or QUO²⁶ quoting protocols to quote on NOM. NOM Market Makers may enter orders to the extent they do not exceed 25 percent of the total number of all contracts executed by the Market Maker in any calendar quarter in options in which the NOM Market Maker is not registered as a Market Maker.²⁷ As Market Makers primarily make markets on NOM, utilizing the quoting protocols, the FIX offering is primarily utilized for non-market making activities by NOM Market Makers. Further, all NOM Participants have utilized FIX since the inception of NOM to enter orders. The differences as between the current order entry FIX offering and the delayed OTTO offering are not impactful in that the options symbol directory messages (e.g., underlying);²⁸ system event messages (e.g., start of trading hours messages and start of opening); and trading action messages (e.g., halts and resumes) may also be obtained through market data feeds offered by the Exchange.²⁹ Today, NOM Participants subscribe to the market data feeds to obtain order book information. Finally, unlike FIX, OTTO would not offer the ability to route to away markets. The Exchange notes that

²⁶ Orders that NOM Market Makers send through QUO count toward market maker quoting obligations.

²⁷ See Options 2, Section 6(b).

²⁸ Further, FIX permits Participants to define their orders utilizing industry-wide canonical information (e.g. underlying, put/call and strike information) as compared to OTTO which would require a Participant to read symbol directory messages and send orders with Exchange specific instrument IDs.

²⁹ See Options 3, Section 23 for descriptions of the ITTO and BONO data feeds.

other Nasdaq markets offer only one order entry protocol.³⁰ Both Phlx and BX offer only one quoting protocol, SQF, on those markets.

Nasdaq will continue its conversations with Participants to understand Participant needs so that it may continue to consider changes to protocols offered on NOM in the future.

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. With this proposal, the Exchange will not implement the OTTO protocol to any NOM Participant. Any Participant may utilize the FIX protocol for order entry on NOM. The Exchange does not believe the proposal imposes an undue burden on intra-market competition. There were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol after the first two delays.

As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers. Non-Market Makers could have elected to utilize OTTO, however it would not offer routing capabilities. While NOM Market Makers may elect to utilize either the SQF or the QUO³¹ quoting protocol, non-Market Makers must utilize the FIX protocol. NOM Market Makers, unlike other market participants, are required to provide liquidity to the market and are subject to certain obligations,³²

³⁰ See note 16 above.

³¹ Orders that NOM Market Makers send through QUO count toward market maker quoting obligations.

³² See Options 2, Section 4.

including a requirement to provide continuous two-sided quotes on a daily basis.³³

Providing multiple protocols for NOM Market Makers to provide liquidity on NOM benefits all market participants through the quality of order interaction.

The Exchange does not believe the proposal imposes an undue burden on inter-market competition because the protocols described herein permit market participants to enter quotes and orders on NOM. Other options exchanges may similarly develop protocols specific to order and quote entry on their markets which are similar to the offerings on NOM. The Exchange notes that other Nasdaq markets offer only one order entry protocol.³⁴ Both Phlx and BX offer only one quoting protocol, SQF, on those markets. Further, today, all options markets utilize the FIX protocol for order entry.

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

No written comments were either solicited or received.

6. Extension of Time Period for Commission Action

Not Applicable.

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

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(iii)³⁵ of the Act and Rule 19b-4(f)(6) thereunder³⁶ in that it effects a change that: (i) does not significantly affect the protection of investors or the public interest; (ii)

³³ See Options 2, Section 5.

³⁴ See note 16 above.

³⁵ 15 U.S.C. 78s(b)(3)(A)(iii).

³⁶ 17 CFR 240.19b-4(f)(6).

does not impose any significant burden on competition; and (iii) by its terms, does not become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest.

The Exchange believes that the proposal does not significantly affect the protection of investors or the public interest because there were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol. The Exchange notes that other Nasdaq markets offer only one order entry protocol.³⁷ Both Phlx and BX offer only one quoting protocol, SQF, on those markets. Other options exchanges may similarly develop protocols specific to order and quote entry on their markets which are similar to the offerings on NOM.

This proposal does not impose any significant burden on competition as the Exchange because a very low number of non-market making firms had an interest in OTTO. As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers. Non-Market Makers could have elected to utilize OTTO, however it would not offer routing capabilities. While NOM Market Makers may elect to utilize either the SQF or the QUO³⁸ quoting protocol, non-Market Makers must utilize the FIX protocol. NOM Market Makers, unlike other market participants, are required to provide liquidity to the market and are subject to certain obligations,³⁹ including a requirement to provide continuous two-sided quotes on a daily

³⁷ See note 16 above.

³⁸ Orders that NOM Market Makers send through QUO count toward market maker quoting obligations.

³⁹ See Options 2, Section 4.

basis.⁴⁰ Providing multiple protocols for NOM Market Makers to provide liquidity on NOM benefits all market participants through the quality of order interaction. Also, the protocols described herein permit market participants to enter quotes and orders on NOM.

Furthermore, Rule 19b-4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file a proposed rule change under that subsection at least five business days prior to the date of filing, or such shorter time as designated by the Commission. The Exchange has provided such notice.

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

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

Not applicable.

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 Change for publication in the Federal Register.

⁴⁰ See Options 2, Section 5.

5. Text of the proposed rule change.

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION
(Release No. _____ ; File No. SR-NASDAQ-2020-089)

December __, 2020

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to No Longer Implement the OTTO Protocol

Pursuant to 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 December 15, 2020, The Nasdaq Stock Market LLC (“Nasdaq” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the 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. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to remove the protocol “Ouch to Trade Options” or “OTTO” from The Nasdaq Options Market LLC (“NOM”) Rulebook. The Exchange previously delayed its implementation of the OTTO protocol; the Exchange will no longer implement the OTTO protocol.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

The text of the proposed rule change is available on the Exchange's Website at <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules>, at the principal office of the Exchange, and at the Commission's Public Reference Room.

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

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 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. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

NOM's proposal seeks to remove the protocol "Ouch to Trade Options" or "OTTO" from The Nasdaq Options Market LLC ("NOM") Rulebook. The Exchange previously delayed its implementation of the OTTO protocol; the Exchange will no longer implement the OTTO protocol.

Background

Nasdaq filed a rule change³ which adopted a new protocol "Ouch to Trade Options" or "OTTO"⁴ and proposed to rename and modify the current OTTO protocol as

³ See Securities Exchange Act Release No. 83888 (August 20, 2018), 83 FR 42954 (August 24, 2018) (SR-NASDAQ-2018-069) ("Prior Rule Change"). In the Prior Rule Change the Exchange stated that it would issue an Options Trader Alert introducing the new OTTO protocol in Q4 of 2018. The rule numbers were amended in 2019 when the Rulebook was relocated. See Securities Exchange Act Release No. 87778 (December 17, 2019), 84 FR 70590 (December 23, 2019) (SR-NASDAQ-2019-098).

“Quote Using Orders” or “QUO.”⁵ The Exchange subsequently filed a rule change to amend Options 3, Section 18, titled “Detection of Loss of Communication” which describes the impact to NOM protocols in the event of a loss of a communication. The Exchange accounted for both the new OTTO and renamed and modified QUO within this rule. Similarly, the Exchange amended Options 3, Section 8, “Nasdaq Opening and Halt Cross” to account for the new OTTO and renamed and modified QUO within this rule. Finally, the Exchange amended Options 3, Section 23, “Data Feeds and Trade Information” to amend “OTTO DROP” to “QUO DROP” and noted within Options 3, Section 15(a)(1) related to Order Price Protection rule or “OPP” that OPP shall not apply to orders entered through QUO.⁶

Both the Prior Rule Change and the Subsequent Rule Change indicated the aforementioned rule changes would be implemented for QUO and OTTO in Q4 of 2018

⁴ As modified by the Prior Rule Change, OTTO is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders to and from the Exchange. Features include the following: (1) options symbol directory messages (e.g., underlying); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; and (6) risk protection triggers and cancel notifications. See NOM Rules at Options 3, Section 7(d)(1)(C).

⁵ QUO is an interface that allows NOM Market Makers to connect, send, and receive messages related to single-sided orders to and from the Exchange. Order Features include the following: (1) options symbol directory messages (e.g., underlying); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; and (6) risk protection triggers and cancel notifications. Orders submitted by NOM Market Makers over this interface are treated as quotes. See Options 3, Section 7(d)(1)(D).

⁶ See Securities Exchange Act Release No. 84559 (November 9, 2018), 83 FR 57774 (November 16, 2018) (SR-NASDAQ-2018-085) (“Subsequent Rule Change”).

with the date announced via an Options Traders Alert. The Exchange filed a rule change implementing QUO and delaying the introduction of the OTTO functionality until Q3 2019 by announcing the date of implementation via an Options Traders Alert.⁷ The Exchange further delayed the implementation of OTTO functionality until Q3 2019 and then Q2 2020, respectively.⁸ The last rule change filed with the Commission delayed the implementation of OTTO functionality until Q2 2021 due to market events.⁹

Proposal

At this time, NOM has determined not to implement the OTTO protocol and proposes to remove references to the OTTO protocol within its Rulebook. As noted above, the Exchange delayed the introduction of the OTTO functionality initially until Q3 2019.¹⁰ The Exchange then further delayed the implementation of OTTO

⁷ See Securities Exchange Act Release No. 84723 (December 4, 2018), 83 FR 63692 (December 11, 2018) (SR-NASDAQ-2018-097). The Exchange proposed to immediately implement QUO as of the effectiveness of SR-NASDAQ-2018-097 and delay the implementation of OTTO by issuing an Options Trader Alert announcing the implementation date in Q1 2019. The QUO implementation became effective upon filing on November 26, 2018.

⁸ See Securities Exchange Act Release Nos. 85386 (March 21, 2019), 84 FR 11597 (March 27, 2019) (SR-NASDAQ-2019-016); and 87160 (September 30, 2019), 84 FR 53186 (October 4, 2019) (SR-NASDAQ-2019-078).

⁹ See Securities Exchange Act Release Nos. 89077 (June 16, 2020), 85 FR 37486 (June 22, 2020) (SR-NASDAQ-2020-031).

¹⁰ See Securities Exchange Act Release No. 84723 (December 4, 2018), 83 FR 63692 (December 11, 2018) (SR-NASDAQ-2018-097). The Exchange proposed to immediately implement QUO as of the effectiveness of SR-NASDAQ-2018-097 and delay the implementation of OTTO by issuing an Options Trader Alert announcing the implementation date in Q1 2019. The QUO implementation became effective upon filing on November 26, 2018.

functionality until Q3 2019 and then Q2 2020, respectively.¹¹ There were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol after the first two delays. The last rule change filed with the Commission delayed the implementation of OTTO functionality until Q2 2021 due to market events.¹² Nasdaq was considering enhancing OTTO features to provide Participants with other capabilities that are currently not offered with OTTO, in the area of risk enhancements.¹³ Nasdaq has discussed certain enhancements with Participants. The Exchange notes that it did not have a large number of Participants interested in the enhancements it was considering.

There are differences as between the current order entry FIX offering and the delayed OTTO offering. The OTTO offering included options symbol directory messages (e.g., underlying); system event messages (e.g., start of trading hours messages and start of opening); and trading action messages (e.g., halts and resumes). The options symbol directory messages,¹⁴ system event messages and trading action messages may also be obtained through market data feeds offered by the Exchange.¹⁵ Also, OTTO

¹¹ See Securities Exchange Act Release Nos. 85386 (March 21, 2019), 84 FR 11597 (March 27, 2019) (SR-NASDAQ-2019-016); and 87160 (September 30, 2019), 84 FR 53186 (October 4, 2019) (SR-NASDAQ-2019-078).

¹² See Securities Exchange Act Release Nos. 89077 (June 16, 2020), 85 FR 37486 (June 22, 2020) (SR-NASDAQ-2020-031).

¹³ Of those firms interested in the OTTO protocol in 2018, a very low number of firms were non-market making firms. As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers.

¹⁴ Further, FIX permits Participants to define their orders utilizing industry-wide canonical information (e.g. underlying, put/call and strike information) as compared to OTTO which would require a Participant to read symbol directory messages and send orders with Exchange specific instrument IDs.

¹⁵ See Options 3, Section 23 for descriptions of the Nasdaq ITCH to Trade Options (“ITTO”) and Best of Nasdaq Options (“BONO”) data feeds. System event

would not offer the ability to route, unlike FIX which does offer the ability to route orders.

The Exchange notes that other Nasdaq markets offer only one order entry protocol.¹⁶ Both Phlx and BX offer only one quoting protocol, SQF, on those markets.

At this time, in light of conversations with Participants, Nasdaq proposes to remove the OTTO protocol from its Rulebook and not implement this protocol. NOM will continue to offer QUO, in addition to its FIX¹⁷ and SQF¹⁸ protocols. The Exchange proposes to make conforming changes to the Rulebook to eliminate references to OTTO.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the

messages (e.g., start of trading hours messages and start of opening); and trading action messages (e.g., halts and resumes) are available on both of these data feeds.

¹⁶ Nasdaq Phlx LLC (“Phlx”) and Nasdaq BX, Inc. (“BX”) only offer the FIX protocol for order entry.

¹⁷ “Financial Information eXchange” or “FIX” is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders to and from the Exchange. Features include the following: (1) execution messages; (2) order messages; and (3) risk protection triggers and cancel notifications. See Options 3, Section 7(d)(1)(A).

¹⁸ “Specialized Quote Feed” or “SQF” is an interface that allows Market Makers to connect, send, and receive messages related to quotes and Immediate-or-Cancel Orders into and from the Exchange. Features include the following: (1) options symbol directory messages (e.g underlying instruments); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) quote messages; (6) Immediate-or-Cancel Order messages; (7) risk protection triggers and purge notifications; and (8) opening imbalance messages. The SQF Purge Interface only receives and notifies of purge request from the Market Maker. Market Makers may only enter interest into SQF in their assigned options series. See Options 3, Section 7(d)(1)(B).

Act,¹⁹ in general, and furthers the objectives of Section 6(b)(5) of the Act,²⁰ in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. While the Exchange will no longer implement the OTTO functionality, it will continue to offer the FIX, QUO, and SQF protocols on NOM.

As noted above, the Exchange delayed the introduction of the OTTO functionality initially until Q3 2019.²¹ The Exchange then further delayed the implementation of OTTO functionality until Q3 2019 and then Q2 2020, respectively.²² There were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol after the first two delays. The last rule change filed with the Commission delayed the implementation of OTTO functionality until Q2 2021 due to market events.²³ Nasdaq was considering enhancing OTTO features to provide Participants with other

¹⁹ 15 U.S.C. 78f(b).

²⁰ 15 U.S.C. 78f(b)(5).

²¹ See Securities Exchange Act Release No. 84723 (December 4, 2018), 83 FR 63692 (December 11, 2018) (SR-NASDAQ-2018-097). The Exchange proposed to immediately implement QUO as of the effectiveness of SR-NASDAQ-2018-097 and delay the implementation of OTTO by issuing an Options Trader Alert announcing the implementation date in Q1 2019. The QUO implementation became effective upon filing on November 26, 2018.

²² See Securities Exchange Act Release Nos. 85386 (March 21, 2019), 84 FR 11597 (March 27, 2019) (SR-NASDAQ-2019-016); and 87160 (September 30, 2019), 84 FR 53186 (October 4, 2019) (SR-NASDAQ-2019-078).

²³ See Securities Exchange Act Release Nos. 89077 (June 16, 2020), 85 FR 37486 (June 22, 2020) (SR-NASDAQ-2020-031).

capabilities that are currently not offered with OTTO, in the area of risk enhancements.²⁴ Nasdaq has discussed certain enhancements with Participants.²⁵ The Exchange notes that it did not have a large number of Participants interested in the enhancements it was considering. At this time, in light of conversations with Participants, Nasdaq proposes to remove the OTTO protocol from its Rulebook and not implement this protocol.

As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers. NOM Market Makers may elect to utilize either the SQF or QUO²⁶ quoting protocols to quote on NOM. NOM Market Makers may enter orders to the extent they do not exceed 25 percent of the total number of all contracts executed by the Market Maker in any calendar quarter in options in which the NOM Market Maker is not registered as a Market Maker.²⁷ As Market Makers primarily make markets on NOM, utilizing the quoting protocols, the FIX offering is primarily utilized for non-market making activities by NOM Market Makers. Further, all NOM Participants have utilized FIX since the inception of NOM to enter orders. The differences as between the current order entry FIX offering and the delayed OTTO offering are not impactful in that the options symbol directory messages (e.g.,

²⁴ Of those firms interested in the OTTO protocol in 2018, a very low number of firms were non-market making firms. As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers.

²⁵ The Exchange notes that it did not have a large number of Participants interested in the enhancements it was considering.

²⁶ Orders that NOM Market Makers send through QUO count toward market maker quoting obligations.

²⁷ See Options 2, Section 6(b).

underlying);²⁸ system event messages (e.g., start of trading hours messages and start of opening); and trading action messages (e.g., halts and resumes) may also be obtained through market data feeds offered by the Exchange.²⁹ Today, NOM Participants subscribe to the market data feeds to obtain order book information. Finally, unlike FIX, OTTO would not offer the ability to route to away markets. The Exchange notes that other Nasdaq markets offer only one order entry protocol.³⁰ Both Phlx and BX offer only one quoting protocol, SQF, on those markets.

Nasdaq will continue its conversations with Participants to understand Participant needs so that it may continue to consider changes to protocols offered on NOM in the future.

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. With this proposal, the Exchange will not implement the OTTO protocol to any NOM Participant. Any Participant may utilize the FIX protocol for order entry on NOM. The Exchange does not believe the proposal imposes an undue burden on intra-market competition. There were not a material amount of non-Market Makers interested in the risk enhancements or the OTTO protocol after the first two delays.

²⁸ Further, FIX permits Participants to define their orders utilizing industry-wide canonical information (e.g. underlying, put/call and strike information) as compared to OTTO which would require a Participant to read symbol directory messages and send orders with Exchange specific instrument IDs.

²⁹ See Options 3, Section 23 for descriptions of the ITTO and BONO data feeds.

³⁰ See note 16 above.

As noted in the Prior Rule Change, the former OTTO protocol was predominately utilized by NOM Market Makers. Non-Market Makers could have elected to utilize OTTO, however it would not offer routing capabilities. While NOM Market Makers may elect to utilize either the SQF or the QUO³¹ quoting protocol, non-Market Makers must utilize the FIX protocol. NOM Market Makers, unlike other market participants, are required to provide liquidity to the market and are subject to certain obligations,³² including a requirement to provide continuous two-sided quotes on a daily basis.³³ Providing multiple protocols for NOM Market Makers to provide liquidity on NOM benefits all market participants through the quality of order interaction.

The Exchange does not believe the proposal imposes an undue burden on inter-market competition because the protocols described herein permit market participants to enter quotes and orders on NOM. Other options exchanges may similarly develop protocols specific to order and quote entry on their markets which are similar to the offerings on NOM. The Exchange notes that other Nasdaq markets offer only one order entry protocol.³⁴ Both Phlx and BX offer only one quoting protocol, SQF, on those markets. Further, today, all options markets utilize the FIX protocol for order entry.

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

No written comments were either solicited or received.

³¹ Orders that NOM Market Makers send through QUO count toward market maker quoting obligations.

³² See Options 2, Section 4.

³³ See Options 2, Section 5.

³⁴ See note 16 above.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act³⁵ and subparagraph (f)(6) of Rule 19b-4 thereunder.³⁶

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or 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:

³⁵ 15 U.S.C. 78s(b)(3)(A)(iii).

³⁶ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

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-NASDAQ-2020-089 on the subject line.

Paper comments:

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

All submissions should refer to File Number SR-NASDAQ-2020-089. 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 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-NASDAQ-2020-089 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.³⁷

J. Matthew DeLesDernier
Assistant Secretary

³⁷ 17 CFR 200.30-3(a)(12).

EXHIBIT 5

New text is underlined; deleted text is in brackets.

The Nasdaq Stock Market LLC Rules

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Options Rules

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Options 3 Options Trading Rules

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Section 4. Entry and Display of Quotes

[OTTO functionality implementation shall be delayed until Q2 2021. The Exchange will issue an Options Trader Alert notifying Participants when this functionality will be available.]

* * * * *

Section 7. Types of Orders and Order and Quote Protocols

* * * * *

[OTTO functionality implementation shall be delayed until Q2 2021. The Exchange will issue an Options Trader Alert notifying Participants when this functionality will be available.]

(d) Entry and Display of Orders and Quotes. Participants may enter orders and quotes into the System as specified below.

(1) The Exchange offers Participants the following protocols for entering orders and quotes respectively:

* * * * *

(C) Reserved. [**"Ouch to Trade Options"** or "**OTTO**" is an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders to and from the Exchange. Features include the following: (1) options symbol directory messages (e.g., underlying); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) order messages; and (6) risk protection triggers and cancel notifications.]

* * * * *

Section 8. Opening and Halt Cross

[OTTO functionality implementation shall be delayed until Q2 2021. The Exchange will issue an Options Trader Alert notifying Participants when this functionality will be available.]

(a) Definitions. For the purposes of this Rule the term:

* * * * *

(4) "Eligible Interest" shall mean any quotation or any order that may be entered into the system and designated with a time-in-force of IOC (immediate-or-cancel), DAY (day order), GTC (good-till-cancelled), and OPG (On the Open Order). However, orders received via FIX [and OTTO] protocol prior to the Nasdaq Opening Cross designated with a time-in-force of IOC will be rejected and shall not be considered eligible interest. Orders received via QUO and quotes received via SQF prior to the Nasdaq Opening Cross designated with a time-in-force of IOC will remain in-force through the opening and shall be cancelled immediately after the opening.

* * * * *

Section 18. Detection of Loss of Communication

(a) When the SQF Port detects the loss of communication with a NOM Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the NOM Participant's affected Client Application and automatically cancel all of the NOM Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same NOM Options Market Maker ID and underlying issues.

(1) A "Heartbeat" message is a communication which acts as a virtual pulse between the SQF or FIX Port and the Client Application. The Heartbeat message sent by the NOM Participant and subsequently received by the Exchange allows the SQF or FIX Port to continually monitor its connection with the NOM Participant.

(2) SQF Port is the Exchange's System component through which NOM Participants communicate their quotes from the Client Application.

(3) FIX [and OTTO] Ports are the Exchange's System component through which NOM Participants communicate their orders from the Client Application.

(4) QUO is the Exchange's System component through which NOM Market Makers communicate orders from the Client Application.

(5) Client Application is the System component of the Participant through which the NOM Participant communicates its quotes and orders to the Exchange.

(b) When the FIX Port detects the loss of communication with a NOM Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the NOM Participant's affected Client Application and, if the NOM Participant has elected to have its orders cancelled pursuant to Options 3, Section 18([d]e), automatically cancel all open orders posted.

[(c) When the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to Options 3, Section 18(g) automatically cancel all open orders posted.]

[(d]c) When the QUO Port detects the loss of communication with a NOM Market Maker's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the NOM Market Maker's affected Client Application and if the NOM Market Maker has elected to have its orders cancelled pursuant to Options 3, Section 18([h]f) automatically cancel all open orders posted.

[(e]d) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A NOM Market Maker may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (a) above, to trigger the disconnect and must communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session of connectivity to the Exchange. This feature is enabled for each NOM Market Maker and may not be disabled.

(A) If the NOM Market Maker systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The NOM Market Maker change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the NOM Market Maker shall persist for each subsequent session of connectivity until the NOM Market Maker either contacts Exchange operations and changes the setting or the NOM Market Maker systemically selects another time period prior to the next session of connectivity.

[(f]e) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (b) above, to trigger the disconnect and removal of orders and communicate that time to

the Exchange. The period of "nn" seconds may be modified to a number between one (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to thirty seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

[(g) The default time period ("nn" seconds) for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (c) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.]

[(h)f] The default time period ("nn" seconds) for QUO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. If the NOM Market Maker elects to have its orders removed, in addition to the disconnect, the NOM Market Maker may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph ([d]c) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for QUO Ports prior to each session of connectivity to the

Exchange. This feature may be disabled for the removal of orders, however the NOM Market Maker will be disconnected.

(A) If the NOM Market Maker systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The NOM Market Maker may change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the NOM Market Maker shall persist for each subsequent session of connectivity until the NOM Market Maker either contacts Exchange operations and changes the setting or the NOM Market Maker systemically selects another time period prior to the next session of connectivity.

([i]g) The trigger for the SQF, FIX, and QUO [and OTTO] Ports is event and Client Application specific. The automatic cancellation of the NOM Market Maker's quotes for SQF Ports and open orders for FIX[,]and QUO[and OTTO] Ports entered into the respective SQF, FIX, or QUO [or OTTO] Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other NOM Market Makers entered into SQF Ports or orders of the same or other Participants entered into the FIX[,]or QUO [or OTTO] Ports via a separate and distinct Client Application.

* * * * *