Required fields are shown with yellow backgrounds and asterisks.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
Form 19b-4

File No.* SR - 2018 - * 07

Amendment No. (req. for Amendments *)

Filing by   Investors' Exchange LLC

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

| Initial * ☑ | Amendment * ☐ | Withdrawal ☐ | Section 19(b)(2) * ☐ | Section 19(b)(3)(A) * ☑ | Section 19(b)(3)(B) * ☐ |

Rule

Pilot ☐	Extension of Time Period for Commission Action * ☐	Date Expires *	19b-4(f)(1) ☐	19b-4(f)(4) ☐
			19b-4(f)(2) ☐	19b-4(f)(5) ☐
			19b-4(f)(3) ☐	19b-4(f)(6) ☑

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) * ☐ | Section 806(e)(2) * ☐ | Section 3C(b)(2) * ☐ |

Exhibit 2 Sent As Paper Document ▣

Exhibit 3 Sent As Paper Document ▣

Description

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

Proposed rule change to amend Rule 11.190(g) to incrementally optimize and enhance the effectiveness of the quote instability calculation in determining whether a crumbling quote exists.

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.

First Name * Claudia   Last Name * Crowley

Title * Chief Regulatory Officer

E-mail * claudia.crowley@iextrading.com

Telephone * (646) 343-2041   Fax

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 04/03/2018

By   Claudia Crowley

(Name *)

Chief Regulatory Officer

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.

claudia.crowley@iextrading.com

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFS 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 *

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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 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

Add   Remove   View

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 Proposed Rule Change

       (a)   Pursuant to the provisions of Section 19(b)(1) under the Securities

Exchange Act of 1934 ("Act"),[1] and Rule 19b-4 thereunder,[2] Investors Exchange LLC

("IEX" or "Exchange") is filing with the Securities and Exchange Commission

("Commission") a proposed rule change to amend Rule 11.190(g) to incrementally

optimize and enhance the effectiveness of the quote instability calculation in determining

whether a crumbling quote exists. The Exchange has designated this proposal as non-

controversial and provided the Commission with the notice required by Rule 19b-

4(f)(6)(iii) under the Act.[3]

       A notice of the proposed rule change for publication in the Federal Register is

attached hereto as Exhibit 1. The text of the proposed rule change is attached as Exhibit

5.

       (b)   The Exchange does not believe that the proposed rule change will have

any direct effect, or any significant indirect effect, on any other Exchange rule in effect at

the time of this filing.

       (c)   Not applicable.

2.   Procedures of the Self-Regulatory Organization

       Senior management has approved the proposed rule change pursuant to authority

delegated to it by the Board of the Exchange. No further action is required under the

Exchange's governing documents. Therefore, the Exchange's internal procedures with

respect to the proposed rule change are complete.

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[1]   15 U.S.C. 78s(b)(1).
[2]   17 CFR 240.19b-4.
[3]   17 CFR 240.19b-4(f)(6)(iii).

The persons on the Exchange staff prepared to respond to questions and comments on the proposed rule change are:

<div align="center">

Claudia Crowley   Sophia Lee
Chief Regulatory Officer   General Counsel
Investors Exchange LLC   Investors Exchange LLC
646-343-2041   646-343-2040

</div>

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

      a.   Purpose

Overview

The purpose of the proposed rule change is to amend Rule 11.190(g) to incrementally optimize and enhance the effectiveness of the quote instability calculation in determining whether a crumbling quote exists. The Exchange utilizes real time relative quoting activity of certain Protected Quotations[4] and a proprietary mathematical calculation (the "quote instability calculation") to assess the probability of an imminent change to the current Protected NBB to a lower price or Protected NBO to a higher price for a particular security ("quote instability factor"). When the quoting activity meets predefined criteria and the quote instability factor calculated is greater than the Exchange's defined quote instability threshold, the System treats the quote as unstable and the crumbling quote indicator ("CQI") is on at that price level for two milliseconds. During all other times, the quote is considered stable, and the CQI is off. The System independently assesses the stability of the Protected NBB and Protected NBO for each

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[4]   Pursuant to Rule 11.190(g), the Protected Quotations of the New York Stock Exchange, Nasdaq Stock Market, NYSE Arca, Nasdaq BX, Bats BZX Exchange, Bats BYX Exchange, Bats EDGX Exchange, and Bats EDGA Exchange.

security.

When CQI is on, Discretionary Peg orders[5] and primary peg orders[6] do not exercise price discretion to meet the limit price of an active (i.e., taking) order. Specifically, as set forth in Rule 11.190(b)(10), a Discretionary Peg order pegs to the less aggressive of the primary quote (i.e., NBB for buy orders and NBO for sell orders) or the order's limit price, if any, but, will exercise price discretion in order to meet the limit price of an active order up to the less aggressive of the Midpoint Price or the order's limit price, if any. However, a Discretionary Peg order will not exercise such price discretion when the CQI is on. Similarly, as set forth in Rule 11.190(b)(8), a primary peg order pegs to a price that is the less aggressive of one (1) minimum price variant ("MPV") less aggressive than the primary quote (i.e., one MPV below (above) the NBB (NBO) for buy (sell) orders) or the order's limit price, if any, but will exercise price discretion in order to meet the limit price of an active order up to the NBB (for buy orders) or down to the NBO (for sell orders), except when the CQI is on or if the order is resting at its limit price, if any.

In addition, when the CQI is on buy (sell) orders that take liquidity at prices at or below (above) the NBO (NBB) are subject to the Crumbling Quote Remove Fee ("CQRF") for executions that exceed the CQRF Threshold.

Discretionary Peg Order

The manner in which Discretionary Peg orders operate is described in Rule 11.190(b)(10). Specifically, a Discretionary Peg order is a non-displayed, pegged order

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[5]   See Rule 11.190(b)(10).
[6]   See Rule 11.190(b)(8).

that upon entry into the System, the price of the order is automatically adjusted by the

System to be equal to the less aggressive of the Midpoint Price or the order's limit price,

if any. When unexecuted shares of such order are posted to the Order Book, the price of

the order is automatically adjusted by the System to be equal to and ranked at the less

aggressive of the primary quote or the order's limit price and is automatically adjusted by

the System in response to changes in the NBB (NBO) for buy (sell) orders up (down) to

the order's limit price, if any. In order to meet the limit price of active orders on the

Order Book, a Discretionary Peg order will exercise the least amount of price discretion

necessary from the Discretionary Peg order's resting price to its discretionary price

(defined as the less aggressive of the Midpoint Price or the Discretionary Peg order's

limit price, if any), except during periods of quote instability (i.e., when a crumbling

quote exists) as defined in paragraph Rule 11.190(g).

Primary Peg Orders

The manner in which primary peg orders operate is described in Rules

11.190(a)(3) and 11.190(b)(8). Specifically, a primary peg order is a non-displayed,

pegged order that upon entry and when posting to the Order Book the price of the order is

automatically adjusted by the System to be equal to and ranked at the less aggressive of

one (1) MPV less aggressive than the primary quote (i.e., the NBB for buy orders and the

NBO for sell orders) or the order's limit price, if any. While resting on the Order Book,

the order is automatically adjusted by the System in response to changes in the NBB

(NBO) for buy (sell) orders up (down) to the order's limit price, if any. In order to meet

the limit price of active orders on the Order Book a primary peg order will exercise price

discretion to its discretionary (defined as the primary quote), except during periods of

quote instability as defined in paragraph 11.190(g).

CQRF

The CQRF is designed to incentivize resting liquidity, including displayed

liquidity, on IEX, and is applicable to orders that remove resting liquidity when the CQI

is on if such orders constitute at least 5% of the Member's volume executed on IEX and

at least 1,000,000 shares, on a monthly basis, measured on a per market participant

identifier ("MPID") basis. Thus, orders that exceed the 5% and 1,000,000 share

thresholds are assessed a fee of $0.0030 per each incremental share executed (or 0.3% of

the total dollar value of the transaction for securities priced below $1.00) that exceeds the

threshold.

Crumbling Quote Calculation

In determining whether a crumbling quote exists, the Exchange utilizes real time

relative quoting activity of certain Protected Quotations and a proprietary mathematical

calculation (the "quote instability calculation") to assess the probability of an imminent

change to the current Protected NBB to a lower price or Protected NBO to a higher price

for a particular security ("quote instability factor"). When the quoting activity meets

predefined criteria and the quote instability factor calculated is greater than the

Exchange's defined threshold ("quote instability threshold"), the System treats the quote

as not stable ("quote instability" or a "crumbling quote"). During all other times, the

quote is considered stable ("quote stability"). The System independently assesses the

stability of the Protected NBB and Protected NBO for each security.

When the System determines that a quote, either the Protected NBB or the

Protected NBO, is unstable, the determination remains in effect at that price level for two

(2) milliseconds. The System will only treat one side of the Protected NBBO as unstable

in a particular security at any given time.[7] By not permitting resting Discretionary Peg

orders and primary peg orders to exercise price discretion during periods of quote

instability, the Exchange is designed to protect such orders from unfavorable executions

when its probabilistic model identifies that the market appears to be moving adversely to

them. Similarly, the CQRF is designed to protect liquidity providing orders by

disincentivizing trading strategies that target resting liquidity during periods of quote

instability seeking to trade at prices that are about to become stale.

Quote stability or instability (also referred to as a crumbling quote) is an

assessment that the Exchange System makes on a real-time basis, based on a pre-

determined, objective set of conditions specified in Rule 11.190(g)(1). Specifically,

quote instability, or the presence of a crumbling quote, is determined by the System

when:

> (A)   the quote instability factor result from the quote stability calculation is greater than the defined quote instability threshold.
>
> (i) Quote Instability Factor. The Exchange's proprietary quote stability calculation used to determine the current quote instability factor is defined by the following formula that utilizes the quote stability coefficients and quote stability variables defined below:
>
> $1/(1 + e \wedge -(C_0 + C_1 * N + C_2 * F + C_3 * NC + C_4 * FC + C_5 * EPos + C_6 * ENeg + C_7 * EPosPrev + C_8 * ENegPrev + C_9 * Delta))$
>
> (a) Quote Stability Coefficients. The Exchange utilizes the values below for the quote stability coefficients.
>
> > (1) $C_0 = -1.2867$

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[7] See, Rule 11.190(g).

(2) $C_1 =$ -0.7030

(3) $C_2 =$ 0.0143

(4) $C_3 =$ -0.2170

(5) $C_4 =$ 0.1526

(6) $C_5 =$ -0.4771

(7) $C_6 =$ 0.8703

(8) $C_7 = 0.1830$

(9) $C_8 = 0.5122$

(10) $C_9 = 0.4645$

 (b) Quote Stability Variables. The Exchange utilizes the quote stability variables defined below to calculate the current quote instability factor.

(1) $N =$ the number of Protected Quotations on the near side of the market, i.e. Protected NBB for buy orders and Protected NBO for sell orders.

(2) $F =$ the number of Protected Quotations on the far side of the market, i.e. Protected NBO for buy orders and Protected NBB for sell orders.

(3) $NC =$ the number of Protected Quotations on the near side of the market minus the maximum number of Protected Quotations on the near side at any point since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(4) $FC =$ the number of Protected Quotations on the far side of the market minus the minimum number of Protected Quotations on the far side at any point since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(5) $EPos =$ a Boolean indicator that equals 1 if the most recent quotation update was a quotation of a protected market joining the near side of the market at the same price.

(6) ENeg = a Boolean indicator that equals 1 if the most recent quotation update was a quotation of a protected market moving away from the near side of market that was previously at the same price.

(7) EPosPrev = a Boolean indicator that equals 1 if the second most recent quotation update was a quotation of a protected market joining the near side of the market at the same price AND the second most recent quotation update occurred since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(8) ENegPrev = a Boolean indicator that equals 1 if the second most recent quotation update was a quotation of a protected market moving away from the near side of market that was previously at the same price AND the second most recent quotation update occurred since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(9) Delta = the number of these three (3) venues that moved away from the near side of the market on the same side of the market and were at the same price at any point since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently: XNGS, EDGX, BATS.

(ii) Quote Instability Threshold. The Exchange utilizes a quote instability threshold of 0.39 for securities whose current spread is less than or equal to $0.01; 0.45 for securities for which the current spread (i.e., the Protected Best Offer minus Protected Best Bid) is greater than $0.01 and less than or equal to $0.02; 0.51 for securities for which the current spread is greater than $0.02 and less than or equal to $0.03; and 0.39 for securities for which the current spread is greater than $0.03.

Rule 11.190(g)(1)(D)(iii) provides that the Exchange reserves the right to modify the quote instability coefficients or quote instability threshold at any time, subject to a filing of a proposed rule change with the SEC. The Exchange is proposing such changes in this rule filing.

Changes to quote instability coefficients and quote instability threshold

IEX conducted an analysis of the effectiveness of the existing factors in predicting whether a crumbling quote would occur, by reviewing market data from randomly selected days in the period from October 2016 through October 2017. These results were then validated by testing different randomly selected dates from the same time period. Based on this analysis, the Exchange has determined that further optimization of the methodology and existing factors would incrementally increase the accuracy of the formula in predicting whether a crumbling quote will occur.   The following describes the proposed changes:

1.   Rule 11.190(g)(1) provides in part that when the System determines that a quote, either the Protected NBB or the Protected NBO is unstable, the determination remains in effect at that price level for two (2) milliseconds. The Exchange proposes to revise the time limitation on how long each determination remains in effect, and reorganize certain existing rule text for clarity. As proposed, when the System determines that either the Protected NBB or the Protected NBO in a particular security is unstable, the determination remains in effect at that price level for two (2) milliseconds, unless a new determination is made before the end of the two (2) millisecond period. Only one determination may be in effect at any given time for a particular security. A new determination may be made after at least 200 microseconds has elapsed since a preceding determination, or a price change on either side of the Protected NBBO occurs, whichever is first. If a new determination is made, the original determination is no longer in effect. A new determination can be at either the Protected NBB or the Protected NBO and at the

same or different price level as the original determination.[8] Based upon our

analysis of market data, as described above, the Exchange believes that changes to

the time limitation would provide for a more dynamic methodology for quote

instability determinations thereby incrementally increasing the accuracy of the

formula in predicting a crumbling quote by expanding the scope of the model to

additional situations where a crumbling quote exists at a different price point, or

again at the same price point within two (2) milliseconds. For example, suppose

that the NBBO is currently $10.03 by $10.04 in a particular security, and the

System determines that the NBB is unstable. This determination goes into effect,

with an expiration time set two (2) milliseconds in the future. Now suppose that

one (1) millisecond later, the NBB falls to $10.02 and the System determines that

this new NBB is unstable. As proposed once the System makes a new

determination that the NBB of $10.02 is unstable, even though the prior

determination at $10.03 has not expired, the new determination will overwrite the

old determination, and its expiration time will be set to two (2) milliseconds in the

future from the time of this determination.

2. The Exchange proposes to revise five of the quote stability variables currently

specified in subparagraph (1)(A)(i)(b) of Rule 11.190(g). Specifically, the

Exchange proposes to revise variables NC, EPosPrev, ENegPrev and Delta to be

calculated over a time window looking back from the time of calculation to one

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[8]   The Exchange also proposes a nonsubstantive change to the text of subparagraph (g)(1) of Rule 11.190
to remove the sentence stating that "[t]he System will only treat one side of the Protected NBBO as
unstable in a particular security at any give time." which is redundant of proposed new text that
provides that "[o]nly one determination may be in effect at any given time for a particular security.".

(1) millisecond ago or the most recent PBBO change on the near side (rather than on either side), whichever happened more recently. Based on our analysis of market data, as described above, the Exchange identified that for each variable, considering the maximum change over the time window defined in this manner is a more accurate indicator of a crumbling quote than the current approach. Similarly, the Exchange proposes to revise variable FC to be calculated over a time window looking back from the time of calculation to one (1) millisecond ago or the most recent PBBO change on the far side (rather than on either side), whichever happened more recently. Based on our analysis of market data, as described above, the Exchange identified that for this variable, considering the maximum change over the time window described in this manner is a more accurate indicator of a crumbling quote than the current approach.

3. The Quote Stability Coefficients specified in subparagraph (1)(A)(i)(a) of Rule 11.190(g) are proposed to be modified to take into account the recent market data analysis, as well as the changes to the quote stability variables as described above. The Exchange believes that the modifications, as proposed, will increase the accuracy of the quote instability calculation.

4. The Exchange proposes to modify and re-optimize the Quote Instability Threshold specified in subparagraph (1)(A)(ii) of Rule 11.190(g) based on the recent market data analysis and the changes to the quote stability variables. Specifically, the threshold size would continue to vary based on the spread of the

Protected NBBO,[9] but the values would be revised. Based on its data analysis, as described above, the Exchange believes that the revised values, as proposed, will increase the accuracy of the quote instability calculation.

5. Finally, the Exchange proposes to conform terminology within Rule 11.190(g) by replacing the use of the term "quote stability" in two instances - within subparagraph (1)(A) and subparagraph (1)(A)(i) of 11.190(g) – with "quote instability" for clarity and consistency. The Exchange notes that in context, both instances mean "quote instability" so no substantive change is proposed in this respect.

The Exchange will announce the implementation date of the proposed rule change by Trading Alert at least five business days in advance of such implementation date and within 90 days of effectiveness of this proposed rule change.

b.　　Statutory Basis

IEX believes that the proposed rule change is consistent with Section 6(b)[10] of the Act in general, and furthers the objectives of Section 6(b)(5) of the Act,[11] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest. Specifically, and as discussed above, the

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[9]　The spread is defined in proposed paragraph (1)(D)(ii) as the Protected Best Offer minus Protected Best Bid.

[10]　15 U.S.C. 78f.

[11]　15 U.S.C. 78f(b)(5).

proposal is designed to optimize and enhance the effectiveness of the quote instability

calculation in determining whether a crumbling quote exists. As discussed in the Purpose

section, each of the proposed changes are based on the Exchange's analysis of market

data, which supports that the proposed changes would increase the accuracy of the

Exchange's quote instability calculation.

The Exchange believes that the proposed changes are designed to protect

investors and the public interest by incrementally enhancing the accuracy of the

Exchange's quote instability calculation in determining whether a crumbling quote exists,

thereby increasing the Exchange's protection of Discretionary Peg orders, primary peg

orders and other liquidity providing orders. Specifically, the Exchange believes that the

proposed rule change will enhance the extent to which Discretionary Peg orders and

primary peg orders will be protected from unfavorable executions by increasing the

instances in which such orders will be prevented from exercising price discretion during

periods of quote instability when the Exchange's probabilistic model identifies that the

market appears to be moving adversely to them. Similarly, the Exchange believes that

the proposed rule change will incrementally enhance the extent to which liquidity

providing orders will be protected from liquidity taking orders targeting them at prices

that are likely to move adversely from the perspective of the liquidity providing order.

The Exchange also believes that application of the proposed rule change to the

CQRF is equitable and not unfairly discriminatory, because it will continue to be

narrowly tailored to disincentivize all Members from deploying trading strategies

designed to chase short-term price momentum during periods when the CQI is on and

thus potentially adversely impact liquidity providing orders. Further, although the

incremental enhancements to the accuracy of the crumbling quote formula may result in a

corresponding increase in executions that remove resting liquidity when the CQI is on,

the Exchange believes that Members are able to adjust their trading on IEX to reduce or

eliminate the imposition of fees pursuant to the CQRF. Moreover, based on its review of

market data during February 2018, the Exchange estimates that while approximately 10%

more trades would be impacted by the proposed rule change, only one additional Member

would potentially be subject to the CQRF. However, a review of this Member's trading

activity since the January 2018 implementation of the CQRF indicates that the Member

has been able to adjust its trading on IEX to reduce and then eliminate its liability for the

CQRF. Thus, the Exchange believes that application of the rule change with respect to

the CQRF is equitable and not unfairly discriminatory.

The Exchange further believes that the conforming changes to terminology are

consistent with the Act because they are designed to provide enhanced clarity within Rule

11.190(g) and thereby avoid any potential confusion on the part of market participants.

Finally, the Exchange notes that, as proposed, the new quote instability

calculation will continue to be a fixed formula specified transparently in IEX's rules.

The Exchange is not proposing to add any new functionality, but merely to revise the

fixed formula based on market data analysis designed to increase the accuracy of the

formula in predicting a crumbling quote, and as contemplated by the rule.

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

IEX does not believe that the proposed rule change will result in any burden on

competition that is not necessary or appropriate in furtherance of the purposes of the Act.

With regard to intra-market competition, the proposed change will apply equally to all

IEX Members. The Commission has already considered the Exchange's Discretionary

Peg order type in connection with its grant of IEX's application for registration as a

national securities exchange under Sections 6 and 19 of the Act[12] and approved the

Exchange's primary peg order type.[13] The Commission has also considered the CQRF,[14]

and the Exchange does not believe that the incremental increase in the number of

executions that remove resting liquidity when the CQI is on as a result of the proposed

enhancements to the accuracy of the quote instability calculation specified in Rule

11.190(g) will create a burden on competition with respect to application to the CQRF.

As discussed in the Statutory Basis section, the proposed rule change will apply equally

to all Members, and the Exchange believes that Members who may be subject to potential

increased fees will be able to adjust their trading on IEX to reduce or eliminate any

additional fees pursuant to the CQRF.

The Exchange also believes that the proposed rule change will not result in any

burden on inter-market competition that is not necessary or appropriate in furtherance of

the purposes of the Act. In this regard, the Exchange notes that NYSE American LLC

has adopted a rule copying an earlier iteration of the Exchange's Discretionary Peg Order

and quote stability calculation.[15]

As discussed in the Purpose and Statutory Basis sections, the proposed rule

change is designed to merely enhance the accuracy of the quote instability calculation;

therefore, no new burdens are being proposed.

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[12]   See Securities Exchange Act Release 78101 (June 17, 2016), 81 FR 41142 (June 23, 2016) (File No. 10-222).

[13]   See Securities Exchange Act Release No. 80223 (March 13, 2017), 82 FR 14240 (March 17, 2017).

[14]   See Securities Exchange Act Release No. 81484 (August 25, 2017), 82 FR 41446 (August 31, 2017).

[15]   See NYSE American Rule 7.31E(h)(3)(D).

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

        Written comments were neither solicited nor 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 Exchange has designated this rule filing as non-controversial under Section

19(b)(3)(A) of the Act[16] and paragraph (f)(6) of Rule 19b-4 thereunder.[17] The Exchange

asserts that the proposed rule change: (1) will not significantly affect the protection of

investors or the public interest, (2) will not impose any significant burden on competition,

(3) and will not become operative for 30 days from the date on which it was filed, or such

shorter time as the Commission may designate if consistent with the protection of

investors and the public interest. In addition, the Exchange provided the Commission

with written notice of its intent to file the proposed rule change, along with a brief

description and text of the proposed rule change, at least five business days prior to the

date of filing.[18]

        The Exchange believes that the proposed rule change meets the criteria of

subparagraph (f)(6) of Rule 19b-4[19] because it would not significantly affect the

protection of investors or the public interest; rather, the proposed rule change will benefit

investors because it is designed to enhance the accuracy of the quote instability

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[16]   15 U.S.C. 78s(b)(3)(A).
[17]   17 CFR 240.19b-4(f)(6).
[18]   17 CFR 240.19b-4(f)(6)(iii).
[19]   17 CFR 240.19b-4(f)(6).

calculation and protect Members that enter Discretionary Peg orders from unfavorable

executions when the market is moving against the order (i.e., lower for a buy order and

higher for a sell order). The proposed rule change will merely revise the fixed formula

specified in Rule 11.190(g) for predicting a crumbling quote, and as contemplated by the

rule. In this regard, the proposed changes are intended to optimize the quote instability

equation applicable to discretionary peg orders, primary peg orders, and the CQRF, and

are not intended to materially change the operation of the rule or introduce new

functionality. Rather, the Exchange intends the proposed changes to increase the ability

of discretionary peg orders, primary peg orders, and the CQRF to meet their stated

objectives as reflected in the Exchange's rules. IEX notes that two Exchange rule

changes revising the quote instability calculation specified in Rule 11.190(g) previously

became effective.[20] As such, the Exchange does not believe the proposal raises any new

or novel issues not already considered by the Commission. Accordingly, the Exchange

believes that the proposed rule change is noncontroversial and satisfies the requirements

of Rule 19b-4(f)(6)[21].

     Furthermore, 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.

     The Exchange respectfully requests that the Commission waive the 30-day

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[20]   See Securities Exchange Act Release 34-78510 (August 9, 2016), 81 FR 54166 (August 15, 2016). See also Securities Exchange Act Release No. 80202 (March 10, 2017), 82 FR 14058 (March 16, 2017).

[21]   17 CFR 240.19b-4(f)(6).

operative delay period after which a proposed rule change under Rule 19b-4(f)(6)

becomes effective. The proposed rule change will merely revise the fixed formula

specified in Rule 11.190(g) for predicting a crumbling quote, and as contemplated by the

rule. Waiver of the operative delay is, therefore, consistent with the protection of

investors and the public interest because it will allow the Exchange to implement the

proposed rule change upon effectiveness of the proposed rule change, thus enabling the

Exchange to provide the contemplated protections to Members entering Discretionary

Peg orders at such time. The Exchange will announce the implementation date of the

proposed rule change by Trading Alert at least five business days in advance of such

implementation date and within 90 days of effectiveness of this proposed rule change.

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 the Rules of Another Self-Regulatory
        Organization or of the Commission

The proposed rule change is not based on the rules of another self-regulatory

organization or of the Commission.

9.   Security-Based Swap Submissions Filed Pursuant to Section3 C 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.   <u>Exhibits</u>

Exhibit 1 – Form of Notice of the Proposed Rule Change for Publication in the

<u>Federal Register</u>.

Exhibit 5 – Text of Proposed Rule Change.

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34 -   ); File No. SR-IEX-2018-07)

Self-Regulatory Organizations: Investors Exchange LLC; Notice of Filing and Immediate
Effectiveness of Proposed Rule Change to Amend Rule 11.190(g) to Incrementally
Optimize and Enhance the Effectiveness of the Quote Instability Calculation in
Determining Whether a Crumbling Quote Exists.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the "Act")[2]

and Rule 19b-4 thereunder,[3] notice is hereby given that, on (date), the Investors Exchange

LLC ("IEX" or the "Exchange") filed with the Securities and Exchange Commission (the

"Commission") the proposed rule change as described in Items I, II and III below, which

Items have been prepared by the self-regulatory organization. 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

Pursuant to the provisions of Section 19(b)(1) under the Act,[4] and Rule 19b-4

thereunder,[5] IEX is filing with the Commission a proposed rule change to amend Rule

11.190(g) to incrementally optimize and enhance the effectiveness of the quote instability

calculation in determining whether a crumbling quote exists. The Exchange has

designated this proposal as non-controversial and provided the Commission with the

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[1]   15 U.S.C. 78s(b)(1).
[2]   15 U.S.C. 78a.
[3]   17 CFR 240.19b-4.
[4]   15 U.S.C. 78s(b)(1).
[5]   17 CFR 240.19b-4.

notice required by Rule 19b-4(f)(6)(iii) under the Act.[6]

The text of the proposed rule change is available at the Exchange's website at

www.iextrading.com, 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 the Statutory
       Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization 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

statement may be examined at the places specified in Item IV below. The self-regulatory

organization 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 the
              Statutory Basis for, the Proposed Rule Change

           1.   Purpose

Overview

The purpose of the proposed rule change is to amend Rule 11.190(g) to

incrementally optimize and enhance the effectiveness of the quote instability calculation

in determining whether a crumbling quote exists. The Exchange utilizes real time

relative quoting activity of certain Protected Quotations[7] and a proprietary mathematical

calculation (the "quote instability calculation") to assess the probability of an imminent

change to the current Protected NBB to a lower price or Protected NBO to a higher price

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6   17 CFR 240.19b-4(f)(6)(iii).

7   Pursuant to Rule 11.190(g), the Protected Quotations of the New York Stock Exchange, Nasdaq Stock Market, NYSE Arca, Nasdaq BX, Bats BZX Exchange, Bats BYX Exchange, Bats EDGX Exchange, and Bats EDGA Exchange.

for a particular security ("quote instability factor"). When the quoting activity meets predefined criteria and the quote instability factor calculated is greater than the Exchange's defined quote instability threshold, the System treats the quote as unstable and the crumbling quote indicator ("CQI") is on at that price level for two milliseconds. During all other times, the quote is considered stable, and the CQI is off. The System independently assesses the stability of the Protected NBB and Protected NBO for each security.

When CQI is on, Discretionary Peg orders[8] and primary peg orders[9] do not exercise price discretion to meet the limit price of an active (i.e., taking) order. Specifically, as set forth in Rule 11.190(b)(10), a Discretionary Peg order pegs to the less aggressive of the primary quote (i.e., NBB for buy orders and NBO for sell orders) or the order's limit price, if any, but, will exercise price discretion in order to meet the limit price of an active order up to the less aggressive of the Midpoint Price or the order's limit price, if any. However, a Discretionary Peg order will not exercise such price discretion when the CQI is on. Similarly, as set forth in Rule 11.190(b)(8), a primary peg order pegs to a price that is the less aggressive of one (1) minimum price variant ("MPV") less aggressive than the primary quote (i.e., one MPV below (above) the NBB (NBO) for buy (sell) orders) or the order's limit price, if any, but will exercise price discretion in order to meet the limit price of an active order up to the NBB (for buy orders) or down to the NBO (for sell orders), except when the CQI is on or if the order is resting at its limit price, if any.

In addition, when the CQI is on buy (sell) orders that take liquidity at prices at or

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8   See Rule 11.190(b)(10).
9   See Rule 11.190(b)(8).

below (above) the NBO (NBB) are subject to the Crumbling Quote Remove Fee

("CQRF") for executions that exceed the CQRF Threshold.

Discretionary Peg Order

The manner in which Discretionary Peg orders operate is described in Rule

11.190(b)(10). Specifically, a Discretionary Peg order is a non-displayed, pegged order

that upon entry into the System, the price of the order is automatically adjusted by the

System to be equal to the less aggressive of the Midpoint Price or the order's limit price,

if any. When unexecuted shares of such order are posted to the Order Book, the price of

the order is automatically adjusted by the System to be equal to and ranked at the less

aggressive of the primary quote or the order's limit price and is automatically adjusted by

the System in response to changes in the NBB (NBO) for buy (sell) orders up (down) to

the order's limit price, if any. In order to meet the limit price of active orders on the

Order Book, a Discretionary Peg order will exercise the least amount of price discretion

necessary from the Discretionary Peg order's resting price to its discretionary price

(defined as the less aggressive of the Midpoint Price or the Discretionary Peg order's

limit price, if any), except during periods of quote instability (i.e., when a crumbling

quote exists) as defined in paragraph Rule 11.190(g).

Primary Peg Orders

The manner in which primary peg orders operate is described in Rules

11.190(a)(3) and 11.190(b)(8). Specifically, a primary peg order is a non-displayed,

pegged order that upon entry and when posting to the Order Book the price of the order is

automatically adjusted by the System to be equal to and ranked at the less aggressive of

one (1) MPV less aggressive than the primary quote (i.e., the NBB for buy orders and the

NBO for sell orders) or the order's limit price, if any. While resting on the Order Book, the order is automatically adjusted by the System in response to changes in the NBB (NBO) for buy (sell) orders up (down) to the order's limit price, if any. In order to meet the limit price of active orders on the Order Book a primary peg order will exercise price discretion to its discretionary (defined as the primary quote), except during periods of quote instability as defined in paragraph 11.190(g).

CQRF

The CQRF is designed to incentivize resting liquidity, including displayed liquidity, on IEX, and is applicable to orders that remove resting liquidity when the CQI is on if such orders constitute at least 5% of the Member's volume executed on IEX and at least 1,000,000 shares, on a monthly basis, measured on a per market participant identifier ("MPID") basis. Thus, orders that exceed the 5% and 1,000,000 share thresholds are assessed a fee of $0.0030 per each incremental share executed (or 0.3% of the total dollar value of the transaction for securities priced below $1.00) that exceeds the threshold.

Crumbling Quote Calculation

In determining whether a crumbling quote exists, the Exchange utilizes real time relative quoting activity of certain Protected Quotations and a proprietary mathematical calculation (the "quote instability calculation") to assess the probability of an imminent change to the current Protected NBB to a lower price or Protected NBO to a higher price for a particular security ("quote instability factor"). When the quoting activity meets predefined criteria and the quote instability factor calculated is greater than the Exchange's defined threshold ("quote instability threshold"), the System treats the quote

as not stable ("quote instability" or a "crumbling quote"). During all other times, the

quote is considered stable ("quote stability"). The System independently assesses the

stability of the Protected NBB and Protected NBO for each security.

When the System determines that a quote, either the Protected NBB or the

Protected NBO, is unstable, the determination remains in effect at that price level for two

(2) milliseconds. The System will only treat one side of the Protected NBBO as unstable

in a particular security at any given time.[10] By not permitting resting Discretionary Peg

orders and primary peg orders to exercise price discretion during periods of quote

instability, the Exchange is designed to protect such orders from unfavorable executions

when its probabilistic model identifies that the market appears to be moving adversely to

them. Similarly, the CQRF is designed to protect liquidity providing orders by

disincentivizing trading strategies that target resting liquidity during periods of quote

instability seeking to trade at prices that are about to become stale.

Quote stability or instability (also referred to as a crumbling quote) is an

assessment that the Exchange System makes on a real-time basis, based on a pre-

determined, objective set of conditions specified in Rule 11.190(g)(1). Specifically,

quote instability, or the presence of a crumbling quote, is determined by the System

when:

> (A)   the quote instability factor result from the quote stability calculation is
>   greater than the defined quote instability threshold.
>
> (i) Quote Instability Factor. The Exchange's proprietary quote stability
> calculation used to determine the current quote instability factor is defined
> by the following formula that utilizes the quote stability coefficients and
> quote stability variables defined below:

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[10]   See, Rule 11.190(g).

$1/(1 + e\,\hat{}\,-(C_0 + C_1 * N + C_2 * F + C_3 * NC + C_4 * FC + C_5 * EPos + C_6 * ENeg + C_7 * EPosPrev + C_8 * ENegPrev + C_9 * Delta))$

(a) Quote Stability Coefficients. The Exchange utilizes the values below for the quote stability coefficients.

   (1) $C_0 = $ -1.2867

   (2) $C_1 = $ -0.7030

   (3) $C_2 = $ 0.0143

   (4) $C_3 = $ -0.2170

   (5) $C_4 = $ 0.1526

   (6) $C_5 = $ -0.4771

   (7) $C_6 = $ 0.8703

   (8) $C_7 = 0.1830$

   (9) $C_8 = 0.5122$

   (10) $C_9 = 0.4645$

(b) Quote Stability Variables. The Exchange utilizes the quote stability variables defined below to calculate the current quote instability factor.

   (1) N = the number of Protected Quotations on the near side of the market, i.e. Protected NBB for buy orders and Protected NBO for sell orders.

   (2) F = the number of Protected Quotations on the far side of the market, i.e. Protected NBO for buy orders and Protected NBB for sell orders.

   (3) NC = the number of Protected Quotations on the near side of the market minus the maximum number of Protected Quotations on the near side at any point since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

   (4) FC = the number of Protected Quotations on the far side of the market minus the minimum number of Protected Quotations on

the far side at any point since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(5) EPos = a Boolean indicator that equals 1 if the most recent quotation update was a quotation of a protected market joining the near side of the market at the same price.

(6) ENeg = a Boolean indicator that equals 1 if the most recent quotation update was a quotation of a protected market moving away from the near side of market that was previously at the same price.

(7) EPosPrev = a Boolean indicator that equals 1 if the second most recent quotation update was a quotation of a protected market joining the near side of the market at the same price AND the second most recent quotation update occurred since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(8) ENegPrev = a Boolean indicator that equals 1 if the second most recent quotation update was a quotation of a protected market moving away from the near side of market that was previously at the same price AND the second most recent quotation update occurred since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently.

(9) Delta = the number of these three (3) venues that moved away from the near side of the market on the same side of the market and were at the same price at any point since one (1) millisecond ago or the most recent PBBO change, whichever happened more recently: XNGS, EDGX, BATS.

(ii) Quote Instability Threshold. The Exchange utilizes a quote instability threshold of 0.39 for securities whose current spread is less than or equal to $0.01; 0.45 for securities for which the current spread (i.e., the Protected Best Offer minus Protected Best Bid) is greater than $0.01 and less than or equal to $0.02; 0.51 for securities for which the current spread is greater than $0.02 and less than or equal to $0.03; and 0.39 for securities for which the current spread is greater than $0.03.

Rule 11.190(g)(1)(D)(iii) provides that the Exchange reserves the right to modify the quote instability coefficients or quote instability threshold at any time, subject to a filing of a proposed rule change with the SEC. The Exchange is proposing such changes in this rule filing.

Changes to quote instability coefficients and quote instability threshold

IEX conducted an analysis of the effectiveness of the existing factors in predicting whether a crumbling quote would occur, by reviewing market data from randomly selected days in the period from October 2016 through October 2017. These results were then validated by testing different randomly selected dates from the same time period. Based on this analysis, the Exchange has determined that further optimization of the methodology and existing factors would incrementally increase the accuracy of the formula in predicting whether a crumbling quote will occur.   The following describes the proposed changes:

1.	Rule 11.190(g)(1) provides in part that when the System determines that a quote, either the Protected NBB or the Protected NBO is unstable, the determination remains in effect at that price level for two (2) milliseconds. The Exchange proposes to revise the time limitation on how long each determination remains in effect, and reorganize certain existing rule text for clarity. As proposed, when the System determines that either the Protected NBB or the Protected NBO in a particular security is unstable, the determination remains in effect at that price level for two (2) milliseconds, unless a new determination is made before the end of the two (2) millisecond period. Only one determination may be in effect at any given time for a particular security. A new determination may be made after at

least 200 microseconds has elapsed since a preceding determination, or a price

change on either side of the Protected NBBO occurs, whichever is first. If a new

determination is made, the original determination is no longer in effect. A new

determination can be at either the Protected NBB or the Protected NBO and at the

same or different price level as the original determination.[11] Based upon our

analysis of market data, as described above, the Exchange believes that changes to

the time limitation would provide for a more dynamic methodology for quote

instability determinations thereby incrementally increasing the accuracy of the

formula in predicting a crumbling quote by expanding the scope of the model to

additional situations where a crumbling quote exists at a different price point, or

again at the same price point within two (2) milliseconds. For example, suppose

that the NBBO is currently $10.03 by $10.04 in a particular security, and the

System determines that the NBB is unstable. This determination goes into effect,

with an expiration time set two (2) milliseconds in the future. Now suppose that

one (1) millisecond later, the NBB falls to $10.02 and the System determines that

this new NBB is unstable. As proposed once the System makes a new

determination that the NBB of $10.02 is unstable, even though the prior

determination at $10.03 has not expired, the new determination will overwrite the

old determination, and its expiration time will be set to two (2) milliseconds in the

future from the time of this determination.

2. The Exchange proposes to revise five of the quote stability variables currently

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[11] The Exchange also proposes a nonsubstantive change to the text of subparagraph (g)(1) of Rule 11.190 to remove the sentence stating that "[t]he System will only treat one side of the Protected NBBO as unstable in a particular security at any give time." which is redundant of proposed new text that provides that "[o]nly one determination may be in effect at any given time for a particular security.".

specified in subparagraph (1)(A)(i)(b) of Rule 11.190(g). Specifically, the

Exchange proposes to revise variables NC, EPosPrev, ENegPrev and Delta to be

calculated over a time window looking back from the time of calculation to one

(1) millisecond ago or the most recent PBBO change on the near side (rather than

on either side), whichever happened more recently. Based on our analysis of

market data, as described above, the Exchange identified that for each variable,

considering the maximum change over the time window defined in this manner is

a more accurate indicator of a crumbling quote than the current approach.

Similarly, the Exchange proposes to revise variable FC to be calculated over a

time window looking back from the time of calculation to one (1) millisecond ago

or the most recent PBBO change on the far side (rather than on either side),

whichever happened more recently. Based on our analysis of market data, as

described above, the Exchange identified that for this variable, considering the

maximum change over the time window described in this manner is a more

accurate indicator of a crumbling quote than the current approach.

3. The Quote Stability Coefficients specified in subparagraph (1)(A)(i)(a) of Rule

    11.190(g) are proposed to be modified to take into account the recent market data

    analysis, as well as the changes to the quote stability variables as described above.

    The Exchange believes that the modifications, as proposed, will increase the

    accuracy of the quote instability calculation.

4. The Exchange proposes to modify and re-optimize the Quote Instability

    Threshold specified in subparagraph (1)(A)(ii) of Rule 11.190(g) based on the

    recent market data analysis and the changes to the quote stability variables.

Specifically, the threshold size would continue to vary based on the spread of the Protected NBBO,[12] but the values would be revised. Based on its data analysis, as described above, the Exchange believes that the revised values, as proposed, will increase the accuracy of the quote instability calculation.

5. Finally, the Exchange proposes to conform terminology within Rule 11.190(g) by replacing the use of the term "quote stability" in two instances - within subparagraph (1)(A) and subparagraph (1)(A)(i) of 11.190(g) – with "quote instability" for clarity and consistency. The Exchange notes that in context, both instances mean "quote instability" so no substantive change is proposed in this respect.

The Exchange will announce the implementation date of the proposed rule change by Trading Alert at least five business days in advance of such implementation date and within 90 days of effectiveness of this proposed rule change.

2.   Statutory Basis

IEX believes that the proposed rule change is consistent with Section 6(b)[13] of the Act in general, and furthers the objectives of Section 6(b)(5) of the Act,[14] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest. Specifically, and as discussed above, the

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[12]   The spread is defined in proposed paragraph (1)(D)(ii) as the Protected Best Offer minus Protected Best Bid.

[13]   15 U.S.C. 78f.

[14]   15 U.S.C. 78f(b)(5).

proposal is designed to optimize and enhance the effectiveness of the quote instability

calculation in determining whether a crumbling quote exists. As discussed in the Purpose

section, each of the proposed changes are based on the Exchange's analysis of market

data, which supports that the proposed changes would increase the accuracy of the

Exchange's quote instability calculation.

The Exchange believes that the proposed changes are designed to protect

investors and the public interest by incrementally enhancing the accuracy of the

Exchange's quote instability calculation in determining whether a crumbling quote exists,

thereby increasing the Exchange's protection of Discretionary Peg orders, primary peg

orders and other liquidity providing orders. Specifically, the Exchange believes that the

proposed rule change will enhance the extent to which Discretionary Peg orders and

primary peg orders will be protected from unfavorable executions by increasing the

instances in which such orders will be prevented from exercising price discretion during

periods of quote instability when the Exchange's probabilistic model identifies that the

market appears to be moving adversely to them. Similarly, the Exchange believes that

the proposed rule change will incrementally enhance the extent to which liquidity

providing orders will be protected from liquidity taking orders targeting them at prices

that are likely to move adversely from the perspective of the liquidity providing order.

The Exchange also believes that application of the proposed rule change to the

CQRF is equitable and not unfairly discriminatory, because it will continue to be

narrowly tailored to disincentivize all Members from deploying trading strategies

designed to chase short-term price momentum during periods when the CQI is on and

thus potentially adversely impact liquidity providing orders. Further, although the

incremental enhancements to the accuracy of the crumbling quote formula may result in a corresponding increase in executions that remove resting liquidity when the CQI is on, the Exchange believes that Members are able to adjust their trading on IEX to reduce or eliminate the imposition of fees pursuant to the CQRF. Moreover, based on its review of market data during February 2018, the Exchange estimates that while approximately 10% more trades would be impacted by the proposed rule change, only one additional Member would potentially be subject to the CQRF. However, a review of this Member's trading activity since the January 2018 implementation of the CQRF indicates that the Member has been able to adjust its trading on IEX to reduce and then eliminate its liability for the CQRF. Thus, the Exchange believes that application of the rule change with respect to the CQRF is equitable and not unfairly discriminatory.

The Exchange further believes that the conforming changes to terminology are consistent with the Act because they are designed to provide enhanced clarity within Rule 11.190(g) and thereby avoid any potential confusion on the part of market participants.

Finally, the Exchange notes that, as proposed, the new quote instability calculation will continue to be a fixed formula specified transparently in IEX's rules. The Exchange is not proposing to add any new functionality, but merely to revise the fixed formula based on market data analysis designed to increase the accuracy of the formula in predicting a crumbling quote, and as contemplated by the rule.

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

IEX does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. With regard to intra-market competition, the proposed change will apply equally to all

IEX Members. The Commission has already considered the Exchange's Discretionary

Peg order type in connection with its grant of IEX's application for registration as a

national securities exchange under Sections 6 and 19 of the Act[15] and approved the

Exchange's primary peg order type.[16] The Commission has also considered the CQRF,[17]

and the Exchange does not believe that the incremental increase in the number of

executions that remove resting liquidity when the CQI is on as a result of the proposed

enhancements to the accuracy of the quote instability calculation specified in Rule

11.190(g) will create a burden on competition with respect to application to the CQRF.

As discussed in the Statutory Basis section, the proposed rule change will apply equally

to all Members, and the Exchange believes that Members who may be subject to potential

increased fees will be able to adjust their trading on IEX to reduce or eliminate any

additional fees pursuant to the CQRF.

The Exchange also believes that the proposed rule change will not result in any

burden on inter-market competition that is not necessary or appropriate in furtherance of

the purposes of the Act. In this regard, the Exchange notes that NYSE American LLC

has adopted a rule copying an earlier iteration of the Exchange's Discretionary Peg Order

and quote stability calculation.[18]

As discussed in the Purpose and Statutory Basis sections, the proposed rule

change is designed to merely enhance the accuracy of the quote instability calculation;

therefore, no new burdens are being proposed.

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[15]   See Securities Exchange Act Release 78101 (June 17, 2016), 81 FR 41142 (June 23, 2016) (File No. 10-222).

[16]   See Securities Exchange Act Release No. 80223 (March 13, 2017), 82 FR 14240 (March 17, 2017).

[17]   See Securities Exchange Act Release No. 81484 (August 25, 2017), 82 FR 41446 (August 31, 2017).

[18]   See NYSE American Rule 7.31E(h)(3)(D).

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

Written comments were neither solicited nor received.

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

The Exchange has designated this rule filing as non-controversial under Section

19(b)(3)(A)[19] of the Act and Rule 19b-4(f)(6)[20] thereunder. Because the 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) of the Act and Rule

19b-4(f)(6) thereunder.

A proposed rule change filed under Rule 19b-4(f)(6)[21] normally does not become

operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b-

4(f)(6)(iii),[22] the Commission may designate a shorter time if such action is consistent

with the protection of investors and the public interest. The Exchange has asked the

Commission to waive the 30-day operative delay.

The Exchange respectfully requested that the Commission waive the 30-day

operative delay period after which a proposed rule change under Rule 19b-4(f)(6)

becomes effective. The proposed rule change will merely revise the fixed formula

specified in Rule 11.190(g) for predicting a crumbling quote, and as contemplated by the

rule. Waiver of the operative delay is, therefore, consistent with the protection of

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[19]   15 U.S.C. 78s(b)(3)(A).
[20]   17 CFR 240.19b-4(f)(6).
[21]   17 CFR 240.19b-4(f)(6).
[22]   17 CFR 240.19b-4(f)(6)(iii).

investors and the public interest because it will allow the Exchange to implement the

proposed rule change upon effectiveness of the proposed rule change, thus enabling the

Exchange to provide the contemplated protections to Members entering Discretionary

Peg orders at such time. The Exchange will announce the implementation date of the

proposed rule change by Trading Alert at least five business days in advance of such

implementation date and within 90 days of effectiveness of this proposed rule change.

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 under Section

19(b)(2)(B)[23] of the Act to determine whether the proposed rule change 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:

Electronic Comments:

- Use the Commission's Internet comment form

  (http://www.sec.gov/rules/sro.shtml); or

- Send an email to rule-comments@sec.gov. Please include File Number SR-IEX-

  2018-07 on the subject line.

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[23]   15 U.S.C. 78s(b)(2)(B).

Paper Comments:

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

All submissions should refer to File Number SR-IEX-2018-07. This file number should be included in the subject line if email 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 website (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 Section, 100 F Street, NE, Washington, DC 20549-1090. Copies of the filing will also be available for inspection and copying at the IEX's principal office and on its Internet website at www.iextrading.com. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-IEX-2018-07 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.[24]

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[24]   17 CFR 200.30-3(a)(12).

Exhibit 5 – Text of Proposed Rule Change

Proposed new language is underlined; proposed deletions are in brackets.

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Rule 11.190. Orders and Modifiers

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(a) through (f) No change.

(g)   No change.

(1) Crumbling Quote. When the System determines that [a quote,] either the Protected NBB or the Protected NBO[,] in a particular security is unstable, the determination remains in effect at that price level for two (2) milliseconds, unless a new determination is made before the end of the two (2) millisecond period. Only one determination may be in effect at any given time for a particular security. A new determination may be made after at least 200 microseconds has elapsed since a preceding determination, or a price change on either side of the Protected NBBO occurs, whichever is first. If a new determination is made, the original determination is no longer in effect. A new determination can be at either the Protected NBB or the Protected NBO and at the same or different price level as the original determination. [The System will only treat one side of the Protected NBBO as unstable in a particular security at any given time.] Quote instability or a crumbling quote is determined by the System when:

(A)   Pursuant to [T]the quote instability calculation, the quote instability factor [result from the quote stability calculation] is greater than the defined quote instability threshold.

(i) Quote Instability Factor. The Exchange's proprietary quote instability calculation used to determine the current quote instability factor is defined by the following formula that utilizes the quote stability coefficients and quote stability variables defined below:

$$1/ (1 + e \char94 -(C_0 + C_1 * N + C_2 * F + C_3 * NC + C_4 * FC + C_5 * EPos + C_6 * ENeg + C_7 * EPosPrev + C_8 * ENegPrev + C_9 * Delta))$$

(a) Quote Stability Coefficients. The Exchange utilizes the values below for the quote stability coefficients.

(1) $C_0 = $ [-1.2867] <u>-1.7561</u>

(2) $C_1 = $ [-0.7030] <u>-0.7335</u>

(3) $C_2 = $ [0.0143] <u>-0.0047</u>

(4) $C_3 = $ [-0.2170] <u>-0.3567</u>

(5) $C_4 = $ [0.1526] <u>0.2407</u>

(6) $C_5 = $ [-0.4771] <u>-0.0891</u>

(7) $C_6 = $ [0.8703] <u>0.4360</u>

(8) $C_7 = $ [0.1830] <u>0.0405</u>

(9) $C_8 = $ [0.5122] <u>-0.0447</u>

(10) $C_9 = $ [0.4645] <u>0.8769</u>

(b) No change.

    (1) – (2) No change.

    (3) NC = the number of Protected Quotations on the near side of the market minus the maximum number of Protected Quotations on the near side at any point since one (1) millisecond ago or the most recent PBBO change <u>on the near side</u>, whichever happened more recently.

    (4) FC = the number of Protected Quotations on the far side of the market minus the minimum number of Protected Quotations on the far side at any point since one (1) millisecond ago or the most recent PBBO change <u>on the far side</u>, whichever happened more recently.

    (5) – (6) No change.

    (7) EPosPrev = a Boolean indicator that equals 1 if the second most recent quotation update was a quotation of a protected market joining the near side of the market at the same price AND the second most recent quotation update occurred since one (1) millisecond ago or the most recent PBBO change <u>on the near side</u>, whichever happened more recently.

    (8) ENegPrev = a Boolean indicator that equals 1 if the second

most recent quotation update was a quotation of a protected market moving away from the near side of market that was previously at the same price AND the second most recent quotation update occurred since one (1) millisecond ago or the most recent PBBO change <u>on the near side</u>, whichever happened more recently.

(9) Delta = the number of these three (3) venues that moved away from the near side of the market on the same side of the market and were at the same price at any point since one (1) millisecond ago or the most recent PBBO change <u>on the near side</u>, whichever happened more recently: XNGS, EDGX, BATS.

(ii) Quote Instability Threshold. The Exchange utilizes a quote instability threshold of [0.39] <u>0.19</u> for securities whose current spread is less than or equal to $0.01; [0.45] <u>0.27</u> for securities for which the current spread (i.e., the Protected Best Offer minus Protected Best Bid) is greater than $0.01 and less than or equal to $0.02; [0.51] <u>0.28</u> for securities for which the current spread is greater than $0.02 and less than or equal to $0.03; and [0.39] <u>0.30</u> for securities for which the current spread is greater than $0.03.

(iii) No change.

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