							OMB Number: 3235-0045 Estimated average burden hours per response	
Page 1 of *	51		EXCHANGE GTON, D.C. 2 orm 19b-4			File No. Iment No. (req. for	* SR - 2018 - * 16 Amendments *)	
Filing by Investors' Exchange LLC								
Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934								
Initial * ✓	Amendment *	Withdrawal	Section 19(o)(2) *	Sectior	19(b)(3)(A) * Rule	Section 19(b)(3)(B) *	
1 1101	Extension of Time Period for Commission Action *	Date Expires *		\checkmark	19b-4(f)(19b-4(f)(19b-4(f)(1) 19b-4(f)(4) 2) 19b-4(f)(5)		
Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010 Security-Based Swap Submission purs to the Securities Exchange Act of 1934 Section 806(e)(1)* Section 806(e)(2)* Section 3C(b)(2)* Image: Clearing and Settlement Act of 2010 Section 3C(b)(2)*					change Act of 1934			
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 revise the threshold for imposition of the Crumbling Quote Remove Fee								
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 Nan	ne * Claudia		Last Name *	Crowley				
Title *	Chief Regulatory Officer							
E-mail *	E-mail * claudia.crowley@iextrading.com							
Telephon	ne * (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 07	7/26/2018		Chief Regulat	ory Officer				
By Cl	laudia Crowley							
(Name *) 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.								

OMB APPROVAL

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549						
For complete Form 19b-4 instructions please refer to the EFFS website.						
Form 19b-4 Information * Add Remove View	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 * 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, 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 Add Remove View 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 Add Remove View 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 CopiesAddRemoveView	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.					
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

Pursuant to the provisions of Section 19(b)(1) under the Securities (a) 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 revise the threshold for imposition of the Crumbling Quote Remove Fee ("CQRF") to more narrowly tailor it to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on the Exchange.

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.

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

¹ 15 U.S.C. 78s(b)(1). ² 17 CRF 240.19b-4.

Claudia Crowley Chief Regulatory Officer Investors Exchange LLC 646-343-2041 Andres J. Trujillo Regulation Counsel Investors Exchange LLC 646-343-2034

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

(a) <u>Purpose</u>

The Exchange proposes to amend its fee schedule, pursuant to IEX Rule 15.110 (a) and (c), to revise the threshold for imposition of the CQRF to more narrowly tailor it to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on the Exchange.

The Exchange charges the CQRF to orders that remove resting liquidity when the crumbling quote indicator ("CQI") is on if such executions constitute at least 5% of the Member's volume executed on IEX and at least 1 million shares, on a monthly basis, measured on a per market participant identifier ("MPID") basis (the "CQRF Threshold"). Orders that exceed the 5% and 1 million share thresholds are assessed a fee of \$0.0030 per each incremental share executed at or above \$1.00 that exceeds the CQRF Threshold.³

Pursuant to IEX Rule 11.190(g), in determining whether quote instability or a crumbling quote exists, the Exchange utilizes real time relative quoting activity of certain Protected Quotations⁴ and a proprietary mathematical calculation (the "quote instability

³ Executions below \$1.00 are assessed a fee of 0.30% of TDV unless the Fee Code Combination results in a free execution. <u>See Investors Exchange Fee Schedule</u>, available on the Exchange public website.

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

calculation") to assess the probability of an imminent change to the current Protected National Best Bid⁵ to a lower price or the Protected National Best Offer⁶ 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 CQI is on. 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 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 milliseconds, unless a new determination is made before the end of the twomillisecond period. 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 Exchange adopted the CQRF beginning in January 2018 in order to incentivize the entry of resting liquidity on IEX, including displayed liquidity. Specifically, and as described more fully in the rule filing adopting the CQRF ("CQRF rule filing"),⁷ the Exchange identified that Members entering liquidity taking orders when

⁵ <u>See</u>, Rule 600(b)(42) under Regulation NMS.

⁶ <u>See</u> supra note 5.

⁷ See Securities Exchange Act Release No. 81484 (August 25, 2017), 82 FR 41446 (August 31, 2017) (SR-IEX-2017-27).

the COI was on appeared to be able to engage in a form of latency arbitrage by leveraging fast proprietary market data feeds and connectivity along with predictive strategies to chase short-term price momentum and successfully target resting orders at unstable prices. IEX believes that these types of trading strategies, with concentrated and aggressive tactics during moments of quote instability, are detrimental to the experience of other IEX participants, and create disparate burdens on resting orders, particularly those that are displayed and therefore ineligible to benefit from the CQI in the manner of Discretionary Peg orders⁸ and primary peg orders⁹ which do not exercise price discretion when the CQI is on.¹⁰ The CQRF is a narrowly tailored approach, designed to disincentivize certain liquidity removing orders that can degrade the quality of the market and thereby incentivize the entry of liquidity providing orders that can enhance the quality of the market. The CQRF is only charged on incremental executed shares above the CQRF Threshold, which is designed to limit the fee to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on IEX and to not charge the fee to executions taking liquidity when the CQI is on that are likely to be incidental and not part of such a strategy.

As described in the CQRF rule filing, there are significant differences in short term markouts¹¹ for resting and taking orders between executions when the CQI is on and

⁸ <u>See</u> Rule 11.190(b)(10).

⁹ See Rule 11.190(b)(8).

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. This limitation is designed to appropriately balance the protective benefits to Discretionary Peg and primary peg orders with the interest of avoiding potentially undue trading restrictions.

¹¹ The term markouts refers to changes in the midpoint of the NBBO measured from the

off, regardless of whether the NBB (NBO) moves lower (higher) within two milliseconds of the Exchange's determination of quote instability. Moreover, the breakdown of orders entered and shares removed when the CQI is on or off evidences that certain trading strategies appear to involve entering liquidity taking orders targeting resting orders at prices that are likely to move adversely from the perspective of the resting order.

The CQRF has been incrementally successful in achieving its stated goal of reducing the incidence of liquidity taking orders when the CQI is on. The volume removed when the CQI is on has declined from 8.1% in December 2017 to 7.3% in April 2018 (see Chart 1 below). Further, 5 of 12 Members that surpassed the CQRF Threshold in December 2017 appear to have reduced such activity by at least 20% and one fell below the CQRF Threshold in April 2018.

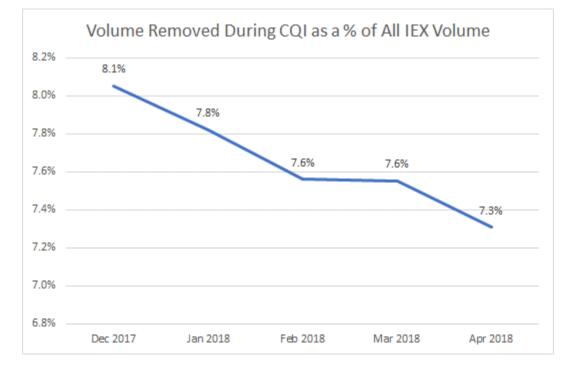


Chart 1

perspective of either the liquidity providing resting order or liquidity removing taking order over a specified period of time following the time of execution.

Moreover, although material differences in key metrics related to orders entered when the CQI is on and off have persisted following implementation of the CQRF, the Exchange has identified some incremental improvement which appears to be generally attributable to the CQRF comparing data from June 2017 to April 2018. Most significantly, the percentage of marketable orders received when the CQI is on has declined from 30.4% to 18.2%, notwithstanding that the amount of time the CQI is on has increased from 1.24 seconds (0.005% of time during Regular Market Hours¹²) to 1.84 seconds (0.008% of time during Regular Market Hours). Thus, based on the foregoing analysis, IEX believes that the CQRF has been incrementally effective in reducing order flow that targets resting liquidity at prices that are about to become stale. With respect to incentivizing liquidity adding order flow, the Exchange notes that IEX's overall volume has increased since implementation of the CQRF, and volume traded when the CQI is off has increased as a proportion of overall volume.¹³ With the confluence of factors that influence order flow decisions, it is inherently difficult to attribute such increases to the CQRF, particularly in the short period of time it has been in effect. Nonetheless, IEX believes that the CQRF has achieved some of its intended objectives already.

Beginning in May 2018, the Exchange incrementally optimized and enhanced the effectiveness of the quote instability calculation in determining whether a crumbling quote exists.¹⁴ As a result, the CQI is on more often. During May and June 2018, the CQI "fired" 28.6% more often per symbol per trading day (on average), compared to

¹² See IEX Rule 1.160 (gg).

¹³ Comparing December 2017 to April 2018, IEX average daily volume increased from 148 million shares to 155 million shares and IEX volume when the CQI is off increased from 91.9% to 92.7%.

¹⁴ See Securities Exchange Act Release No. 83048 (April 13, 2018), 83 FR 17467 (April 19, 2018) (SR-IEX-2018-07).

April 2018. However, shares removed when the CQI is on increased only 19.6%. The Exchange believes that this subsequent increase in CQI activity is attributable to the increased coverage of the signal as a result of the upgrade in May 2018, not a reduction in the effectiveness of the CQRF.

However, notwithstanding the incremental effectiveness of the CQRF, IEX believes that it is possible for a Member to circumvent (in whole or in part) the CQRF Threshold by routing orders to IEX that are part of a deliberate trading strategy that targets resting liquidity during periods of quote instability through another Member (using such Members' MPID) not engaged in such a strategy at all or to the same extent. Such a routing approach would thus consolidate the executions that take liquidity when the CQI is on with executions of the other executing Member thereby reducing the executions that exceed the CQRF Threshold and the resultant fee for the entering Member. This is because the consolidated pool of executions would contain a significant number of orders executed on behalf of the executing Member and its other customers that did not take liquidity when the CQI is on. Therefore, fewer of the entering Member's executions that take liquidity when the CQI is on would be above the 5% threshold when measured on an MPID basis.

In order to address the potential for ongoing and increased circumvention of the CQRF, IEX proposes to revise the threshold for imposition of the CQRF to more narrowly tailor it to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on the Exchange. As proposed, the CQRF Threshold would be revised in two respects. First, the 5% monthly CQRF Threshold would be measured and applied on a per logical port (also referred to as a "session") per

MPID basis.¹⁵ Second, the 1 million share aspect of the CQRF Threshold would be eliminated. Therefore, on a monthly basis, the Exchange would determine whether the 5% threshold was reached within each session used by each Member's MPID. Incremental shares that removed liquidity while the CQI was on above the 5% threshold would be charged the CQRF.

IEX believes that Members generally use separate sessions within the same MPID to segment the order flow of particular customers and proprietary strategies. Thus, the Exchange believes that applying the CQRF Threshold on a per session per MPID basis, rather than solely per MPID, will result in a more fair application of the fee because it will more narrowly apply the fee to trading strategies that are indicative of a deliberate strategy that targets resting orders at prices that are likely to move adversely from the perspective of the resting order and that thus may adversely affect execution quality on IEX. In addition, the change is designed to reduce potential circumvention of the CQRF by Members that consolidate orders under one MPID that are part of such deliberate trading strategies with orders that are not.

Eliminating the 1 million share aspect of the CQRF Threshold is designed to avoid potential circumvention whereby a Member could divide its orders that are part of such a deliberate trading strategy across multiple sessions in order to circumvent the CQRF by keeping each session below the 1 million share threshold. IEX does not charge for sessions, and thus Members can readily add additional sessions upon request.

¹⁵ Pursuant to the IEX Equities Port Request Form (available on IEX's website at <u>https://iextrading.com/docs/IEX%20Connectivity%20Agreements%20and%20Forms.pdf</u>), Members may request one or more connectivity ports to connect to IEX, through which the Member may send, or permit a Sponsored Participant of such Member, to send orders and order related messages to IEX.

Based on an analysis of data from June 2018, the Exchange estimates that 35 Members would be subject to monthly increases in the CQRF, totaling approximately \$94,000 and ranging from \$0.10 to \$36,351. Fourteen Members' increased fees would be more than \$1,000 and two would be over \$10,000. Twelve Members' fees would increase by less than \$100.

The Exchange will continue to provide the Fee Code Indicator of "Q" on execution reports to Members removing liquidity at or within the NBBO when the CQI is on.

IEX will implement the proposed fee change beginning on August 1, 2018.

(b) <u>Statutory Basis</u>

IEX believes that the proposed rule change is consistent with the provisions of Section $6(b)^{16}$ of the Act in general, and furthers the objectives of Sections $6(b)(4)^{17}$ of the Act, in particular, in that it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities. Additionally, IEX believes that the proposed revisions to the CQRF is consistent with the investor protection objectives of Section $6(b)(5)^{18}$ of the Act in particular in that it is designed to promote just and equitable principles of trade, to remove impediments to a free and open market and national market system, and in general to protect investors and the public interest.

The CQRF is designed to enhance the Exchange's market quality by encouraging Members and other market participants to add more liquidity to the Exchange order book,

¹⁶ 15 U.S.C. 78f.

¹⁷ 15 U.S.C. 78f(b)(4).

¹⁸ 15 U.S.C. 78f(b)(5).

which benefits all investors by deepening the Exchange's liquidity pool. Specifically, the Exchange believes that trading strategies that target resting liquidity during periods of quote instability seek to trade at prices that are about to become stale, and thus discourage other market participants from entering liquidity providing orders on the Exchange. The Exchange believes that the CQRF has been incrementally successful in achieving this goal. However, as described in the Purpose section, the Exchange has identified certain actual and potential ways in which the CQRF can be circumvented, which warrant revisions to the CQRF Threshold.

The proposed change to the applicable threshold for imposition of the CQRF is a limited and narrowly drawn approach that is designed to increase the fairness of the fee, and also mitigate and reduce the potential for circumvention, as described in the Purpose section. Specifically, the Exchange believes that applying the CQRF Threshold on a per session per MPID basis, rather than solely on a per MPID basis, will result in a more fair and narrowly tailored application of the fee because it will better focus the fee on deliberate trading strategies that target resting orders at prices that are about to become stale, thus reducing the potential that incidental trading activity not part of such a strategy towards the end of a month after the MPID has crossed the threshold could be subject to the CQRF. In addition, the change is designed to reduce potential circumvention of the CQRF by Members that intentionally consolidate orders that are part of such a deliberate trading strategy with orders that are not, within a single MPID. The Exchange understands that Members typically use separate sessions for distinct trading strategies and customers, and that therefore deliberate trading strategies that target resting orders at prices that are about to become stale would generally not be on the same session as

trading strategies that do not target resting orders in such a manner. Thus, assessing the threshold on a per session per MPID basis, rather than per MPID, is designed to be even more fair and narrowly tailored since the approach will focus the fee on transactions that are part of a deliberate strategy that targets resting orders at prices that are about to become stale, and reduce the potential that the fee will be applied to incidental transactions not part of such a strategy.

As described in the Purpose section, elimination of the 1 million share threshold is designed to avoid potential circumvention whereby a Member could divide its orders that are part of deliberative trading strategies designed to target resting orders at prices that are about to become stale across multiple sessions in order to circumvent the CQRF by keeping each session below 1 million shares subject to the CQRF. In addition, the Exchange believes that the 5% threshold is sufficiently robust such that it is unlikely that a Member will accidentally breach the threshold and incur the CQRF. The CQI is on only 10.4 seconds per symbol per trading day on a volume weighted average basis, constituting 0.04% of the day per symbol. Consequently, the probability that a Member (or customer of a Member) not engaged in a deliberate strategy to target resting orders at prices about to become stale, would by chance trade when the CQI is on is about 1 in 2,340. The Exchange believes that it is highly unlikely for a Member to encounter a 1 in 2,340 chance event more than 5% of the time, and thus the 5% threshold is sufficiently robust to limit application of the CQRF to intentional activity. As described above, IEX believes that the per session per MPID threshold will more narrowly apply the fee to deliberate trading strategies that target resting orders at prices that are about to become stale, and is thus an even fairer and more narrowly tailored application of the fee as a

result thereof. Accordingly, the Exchange believes that the proposed changes will incrementally enhance the effectiveness of the CQRF to incentivize resting liquidity on the Exchange by more effectively disincentivizing order flow that targets resting liquidity at prices that are about to become stale.

Other exchanges offer incentives in the form of rebates and/or reduced fees that are designed to encourage market participants to send increased levels of order flow to such exchanges. These typically take the form of lower fees and higher rebates for meeting specified volume tiers.¹⁹ These fee and rebate structures are typically justified by other exchanges on the basis that increased liquidity benefits all investors by deepening the exchange's liquidity pool, which provides price discovery and investor protection benefits.²⁰ The Exchange also notes that other exchanges charge different fees (or provide rebates) to the buyer and seller to an execution, which are generally referred to as either maker-taker or taker-maker pricing schemes. Typically, the exchange offering such pricing is seeking to incentivize orders that provide or remove liquidity, based on which type of orders receive a rebate. While these pricing schemes discriminate against the Member party to the trade that is charged a fee (in favor of the Member party to the trade that is paid a rebate) the Commission has not found these fees to be unfairly discriminatory in violation of the Act.²¹

Similarly, the proposed changes to the CQRF Threshold seek to promote increased liquidity and price discovery on the Exchange by providing a fee designed to

¹⁹ See, e.g., New York Stock Exchange Price List 2018, available at <u>https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSE_Price_List.pdf</u>. See also, Nasdaq Rule 7018.

²⁰ See, e.g., Securities Exchange Act Release No. 80034 (February 14, 2017), 82 FR 11275 (February 21, 2017) (File No. SR-BatsEDGX-2017-09).

²¹ <u>See note 20 supra.</u>

incentivize liquidity providing orders that can improve the quality of the market. The Exchange believes that, to the extent the fee, as revised, is successful in further reducing targeted and aggressive liquidity removing orders, it would contribute to investors' confidence in the fairness of transactions and the market generally, thereby benefiting multiple classes of market participants and supporting the public interest and investor protection purposes of the Act.

The Exchange believes that maker-taker and taker-maker pricing schemes in general create needless complexity in market structure in various ways and result in conflicts of interest between brokers and their customers. Accordingly, IEX has made a decision not to adopt rebate provisions in favor of a more transparent pricing structure that generally charges equal fees (or in some cases, no fee) for a particular trade to both the "maker" and "taker" of liquidity. Given this decision, IEX must use other means to incentivize orders to rest on its order book. IEX's execution quality is one important incentive, but this incentive can be undercut by trading strategies that target resting orders during periods of quote instability. Accordingly, IEX believes that the CQRF, as it is proposed to be amended, is one reasonable way to compete with other exchanges for order flow, consistent with its exchange model and without relying on rebates.

The Exchange believes that the revised threshold for application of the CQRF is reasonable and equitable because it is designed to reduce potential circumvention of the CQRF and enhance both the fairness and narrowly tailored application of the fee. As amended, the CQRF would continue not to apply when executions taking liquidity while the CQI is on are likely to be incidental and not part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. The Exchange does not believe that the proposed CQRF Threshold changes would result in an increase in such incidental orders being charged the CQRF. To the contrary, the Exchange believes the proposed CQRF Threshold changes would result in more orders that are part of such deliberative strategies being charged, and the per session per MPID charge would result in fewer incidental orders being charged. Consequently, the Exchange believes that the proposed fee structure is not unfairly discriminatory because it is narrowly tailored to charge a fee only on trading activity that is indicative of a trading strategy that may adversely affect execution quality on IEX and is reasonably related to the purpose of encouraging liquidity providing orders on IEX without the use of rebates.

In particular, the Exchange believes that the data from April, May, and June 2018 supports the position that the proposed CQRF Threshold is narrowly tailored to charge the CQRF based on objective criteria indicating that execution of the orders in question reasonably appear to be part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. A pro forma analysis of June 2018 data evidences that had the CQRF been calculated under the proposed threshold per session per MPID, the order entry profile of sessions that would have been subject to the fee is materially different than sessions that would not have been subject to the fee with respect to orders entered when the CQI was on. For the 286 sessions above the CQRF Threshold, 19.0% of orders were received while the CQI was on (21.9% for the 135 sessions that would have been subject to more than \$500 in fees), while for sessions below the proposed CQRF Threshold this number was only 4.7%. The Exchange believes that this difference evidences that sessions above the proposed CQRF Threshold were more likely to be

engaging in a deliberate strategy to target resting orders at soon to be stale prices.²²

The Exchange also believes that it is appropriate, and consistent with the Act, to not charge the CQRF to Members for executed shares on sessions that do not exceed the CQRF Threshold during the month in question, as measured on a per session per MPID basis. This is designed to address limited inadvertent liquidity removal by such Members when the CQI is on since such order flow during such times appears to be incidental.

The Exchange also believes that it is consistent with the Act and an equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities to measure whether the CQRF Threshold is reached on per session per MPID basis. As discussed above, the CQRF Threshold is designed to narrowly focus on executions that appear to be part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. The Exchange believes that Members that utilize multiple sessions generally use different sessions for different trading strategies or customers. Therefore, the Exchange believes that measuring by session-MPID combination is a more precise manner of assessing whether a Member's trading strategy (or that of a customer) is part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. Further, applying the CQRF Threshold on a per session per MPID basis is designed to address potential circumvention of the CQRF as described in the Purpose section.

Accordingly, the Exchange submits that the proposed CQRF Threshold is

²² Thirty-seven Members would have been charged the CQRF, with 35 subject to increased fees. Those 37 Members traded through 565 separate sessions, 286 of which would have been subject to the CQRF. For Members that would be subject to increased fees, the number of sessions that would be charged ranges from 1 to 42.

narrowly tailored to address particular trading strategies (rather than particular classes of Members) that may operate to disincentivize the entry of resting orders by other market participants. Specifically, and as discussed above, to the extent the proposed CQRF is successful in further reducing such trading strategies on IEX, it may result in market quality improvements which could benefit multiple classes of market participants.

The Exchange further believes that charging the CQRF only to the liquidity remover is equitable and not unfairly discriminatory because it is designed to incentivize order flow that enhances the quality of trading on the Exchange and disincentivize trading that does not. As discussed above, IEX believes that there are precedents for exchanges to charge different fees based upon meeting (or not meeting) particular criteria, as well as maker-taker and taker-maker pricing structures whereby the liquidity adder and remover to a trade are subject to differing fees and rebates, to incentivize certain types of trading activity. Fees and rebates based on maker-taker and taker-maker pricing as well as on volume-based tiers have been widely adopted by equities exchanges. And in some cases, maker-taker or taker-maker pricing has been combined with volumebased tiers that result in differential fees and rebates for different exchange members. These fee structures have been permitted by the Commission. For example, Cboe EDGA Exchange, Inc. ("EDGA") previously offered a rebate contingent upon adding specified amounts of liquidity to EDGA.²³ Notwithstanding that certain classes of exchange members (e.g., exchange routing brokers) do not typically add liquidity on competing exchanges, this fee structure was justified by EDGA on the basis that, generally, it

²³ See Securities Exchange Act Release No. 80976 (June 20, 2017), 82 FR 28920 (June 26, 2017) (SR-BatsEDGA-2017-18).

encourages growth in liquidity on EDGA and applies equally to all members.²⁴ Similarly, while the proposed IEX fee structure will result in the CQRF being imposed only on Members using specific trading strategies, it is also designed to attract liquidity to IEX and applies equally to all Members.

The Exchange also notes that there is precedent to charge a different fee (or pay a different rebate) based on the execution price of an order. The Cboe BZX Exchange, Inc. ("BZX") pays a rebate of \$0.0015 to a non-displayed order that adds liquidity, while if such an order receives price improvement it does not receive a rebate or pay a fee.²⁵

Thus, maker-taker, taker-maker, and volume tier based fee structures (separately or in combination) have been adopted by other exchanges on the basis that they may discriminate in favor of certain types of members but not in an unfairly discriminatory manner in violation of the Act. As with such fee structures, the Exchange believes that the proposed fee change is equitable and not unfairly discriminatory because it is narrowly tailored to disincentive to 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. IEX believes that, to the extent it is successful in this regard, the proposed fee structure may lead to increased liquidity providing orders on IEX which could benefit multiple classes of market participants through increased trading opportunities and execution quality.

Further, the Exchange notes that the Nasdaq Stock Market ("Nasdaq") charges

²⁴ See, e.g., Securities Exchange Act Release No. 69066 (March 7, 2013), 78 FR 16023 (March 13, 2013) (SR-EDGA-2013-10).

²⁵ See Cboe BZX Exchange Fee Schedule, available at: http://markets.cboe.com/us/equities/membership/fee_schedule/bzx/.

excess order fees (ranging from \$0.005 to \$0.01 per excess weighted order) on certain members that have a relatively high ratio of orders entered away from the NBBO to orders executed in whole or in part, subject to a carve-outs for specified lower volume members and certain registered market makers.²⁶ In its rule filing adopting the fee Nasdaq justified it as designed to achieve improvements in the quality of displayed liquidity to the benefit of all market participants.²⁷ Nasdaq also asserted that the fee is reasonable because market participants may readily avoid the fee by making improvements in their order entry practices, noting that "[i]deally, the fee will be applied to no one because market participants will adjust their behavior to avoid the fee."²⁸

Similarly, the IEX CQRF, as revised, is designed to incentivize the entry of liquidity providing orders that can enhance the quality of the market and disincentivize certain liquidity removing orders that can degrade the quality of the market. Participants can manage their fees by making adjustments to their order entry practices, to decrease their entry of orders designed to target resting liquidity during periods of quote instability. And, as with the Nasdaq excess order fees, ideally, the fee will be applied to no one, because participants will adjust their trading activity to account for the pricing change. Thus, the Exchange believes that the fee of \$0.0030 per share executed at or above \$1.00 is reasonably related to the trading activity IEX is seeking to disincentivize.

IEX also believes that it is appropriate, reasonable and consistent with the Act, to charge a fee of \$0.0030 per share executed at or above \$1.00 (or 0.3% of the total dollar

²⁶ <u>See</u> Nasdaq Rule 7018(a)(3)(m).

 ²⁷ See, Securities Exchange Act Release No. 66951 (May 9, 2012), 77 FR 28647 (May 15, 2012) (File No. SR-NASDAQ-2012-055).

value of the transaction for securities priced below \$1.00) that exceed the CORF Threshold described herein because it is within the transaction fee range charged by other exchanges²⁹ and consistent with Rule 610(c) of Regulation NMS.³⁰ Although the amount of the CQRF may not be adequate to fully disincentivize Members from deploying trading strategies designed to chase short-term price momentum during periods when the CQI is on, the Exchange is hopeful that it will further reduce such activity based on the economic disincentives that the CQRF will provide.

Moreover, IEX believes that the CQRF will help 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 regulating, clearing, settling, processing information with respect to, and 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, because the CQRF is designed to reduce the entry of liquidity removing orders that can degrade the quality of the market and incentivize liquidity providing orders that can improve the quality of the market, thereby promoting greater order interaction and inhibiting potentially abusive trading practices.

Finally, and as discussed in the Burden on Competition section, the Exchange notes that it operates in a highly competitive market in which Members and market participants can readily direct order flow to competing venues if they deem fee levels to be excessive.

²⁹ See note 19 supra.
³⁰ 17 CFR 242.610(c)(1).

4. <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

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. The Exchange does not believe that the proposed rule change will impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. To the contrary, the Exchange believes that the proposed pricing structure may increase competition and hopefully draw additional volume to the Exchange by enhancing the quality of executions across all participants when the CQI is on. As discussed in the Statutory Basis section, the proposed fee structure is a narrowly tailored approach, designed to enhance the Exchange's market quality by incentivizing trading activity that the Exchange believes enhances the quality of its market. The Exchange believes that the proposed revisions to the CQRF Threshold would contribute to, rather than burden, competition, as the CQRF is intended to incentivize Members and market participants to send increased liquidity providing order flow to the Exchange, which may increase IEX's liquidity and market quality, thereby enhancing the Exchange's ability to compete with other exchanges. Further, with the proposed revisions to the CQRF Threshold, the CQRF would continue to be in line with fees charged by other exchanges.

The Exchange operates in a highly competitive market in which market participants can readily favor competing venues if fee schedules at other venues are viewed as more favorable. Consequently, the Exchange believes that the degree to which IEX fees could impose any burden on competition is extremely limited, and does not believe that such fees would burden competition of Members or competing venues in a manner that is not necessary or appropriate in furtherance of the purposes of the Act.

The Exchange does not believe that the proposed rule change will impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act because, while the CQRF, as revised, would only be assessed in some circumstances, those circumstances are not based on the type of Member entering the liquidity removing order but on the percent of liquidity removing volume that the Member executes when the CQI is on. Further, the proposed revisions to the CQRF Threshold are intended to encourage market participants to bring increased volume to the Exchange, which benefits all market participants.³¹

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

Written comments were neither solicited nor received.

6. Extension of Time Period for Commission Action

Not applicable.

³¹ See e.g., IEX's white paper that utilized publicly available quote and trade data to compare market quality across U.S. stock exchanges, which empirically found, inter alia, that on average IEX has the lowest effective spread, and the greatest opportunity for price improvement amongst all exchanges. A Comparison of Execution Quality across U.S. Stock Exchanges, Elaine Wah, Stan Feldman, Francis Chung, Allison Bishop, and Daniel Aisen, Investors Exchange (2017). Effective spread is commonly defined by market structure academics and market participants as twice the absolute difference between the trade price and prevailing NBBO midpoint at the time of a trade, and is generally meant to measure the cost paid when an incoming order executes against a resting order, and unlike quoted spread captures other features of a market center, such as hidden and midpoint liquidity as well as market depth. Price improvement is in reference to the situation where an aggressive order is filled at a price strictly better than the inside quote (i.e., in the case of an aggressive buy (sell) order, receiving a fill at a price lower (higher) than the NBO (NBB)). See also, Hu, Edwin, Intentional Access Delays, Market Quality, and Price Discovery: Evidence from IEX Becoming an Exchange (February 7, 2018). Available at SSRN: https://ssrn.com/abstract=3195001

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

Pursuant to Section 19(b)(3)(A)(ii) of the Act,³² IEX has designated this proposal as establishing or changing a due, fee, or other charge imposed by the self-regulatory organization on any person, whether or not the person is a member of the self-regulatory organization, which renders the proposed rule change effective upon filing.

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) of the Act to determine whether the proposed rule change should be approved or disapproved.³³

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

The proposed rule change is not based on the rules of another self-regulatory organization or of the Commission.

- Security-Based Swap Submissions Filed Pursuant to Section3 C of the Act Not applicable.
- 10. <u>Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and</u> <u>Settlement Supervision Act</u>

Not applicable.

11. <u>Exhibits</u>

³² 15 U.S.C. 78s(b)(3)(A)(ii).

³³ 15 U.S.C. 78s(b)(2)(B).

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

Federal Register.

Exhibit 5 – Text of Proposed Rule Change.

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION (Release No. 34 -); File No. SR-IEX-2018-16)

Self-Regulatory Organizations: Investors Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Revise the Threshold for Imposition of the Crumbling Quote Remove Fee.

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

Pursuant to the provisions of Section 19(b)(1) under the Securities Exchange Act of 1934 ("Act"),⁴ and Rule 19b-4 thereunder,⁵ IEX is filing with the Commission a proposed rule change to revise the threshold for imposition of the Crumbling Quote Remove Fee ("CQRF") to more narrowly tailor it to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on the Exchange. The text of the proposed rule change is available at the Exchange's website at

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 CRF 240.19b-4.

www.iextrading.com, at the principal office of the Exchange, and at the Commission's Public Reference Room.

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

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

1. <u>Purpose</u>

The Exchange proposes to amend its fee schedule, pursuant to IEX Rule 15.110 (a) and (c), to revise the threshold for imposition of the CQRF to more narrowly tailor it to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on the Exchange.

The Exchange charges the CQRF to orders that remove resting liquidity when the crumbling quote indicator ("CQI") is on if such executions constitute at least 5% of the Member's volume executed on IEX and at least 1 million shares, on a monthly basis, measured on a per market participant identifier ("MPID") basis (the "CQRF Threshold"). Orders that exceed the 5% and 1 million share thresholds are assessed a fee of \$0.0030 per each incremental share executed at or above \$1.00 that exceeds the CQRF

Threshold.6

Pursuant to IEX Rule 11.190(g), in determining whether quote instability or a crumbling quote exists, the Exchange utilizes real time relative quoting activity of certain Protected Quotations⁷ and a proprietary mathematical calculation (the "quote instability" calculation") to assess the probability of an imminent change to the current Protected National Best Bid⁸ to a lower price or the Protected National Best Offer⁹ 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 CQI is on. 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 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 milliseconds, unless a new determination is made before the end of the twomillisecond period. 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

⁶ Executions below \$1.00 are assessed a fee of 0.30% of TDV unless the Fee Code Combination results in a free execution. <u>See Investors Exchange Fee Schedule</u>, available on the Exchange public website.

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

⁸ See, Rule 600(b)(42) under Regulation NMS.

⁹ <u>See</u> supra note 8.

determination.

The Exchange adopted the CQRF beginning in January 2018 in order to incentivize the entry of resting liquidity on IEX, including displayed liquidity. Specifically, and as described more fully in the rule filing adopting the CQRF ("CQRF rule filing"),¹⁰ the Exchange identified that Members entering liquidity taking orders when the COI was on appeared to be able to engage in a form of latency arbitrage by leveraging fast proprietary market data feeds and connectivity along with predictive strategies to chase short-term price momentum and successfully target resting orders at unstable prices. IEX believes that these types of trading strategies, with concentrated and aggressive tactics during moments of quote instability, are detrimental to the experience of other IEX participants, and create disparate burdens on resting orders, particularly those that are displayed and therefore ineligible to benefit from the COI in the manner of Discretionary Peg orders¹¹ and primary peg orders¹² which do not exercise price discretion when the CQI is on.¹³ The CQRF is a narrowly tailored approach, designed to disincentivize certain liquidity removing orders that can degrade the quality of the market and thereby incentivize the entry of liquidity providing orders that can enhance the quality of the market. The CQRF is only charged on incremental executed shares above the CQRF Threshold, which is designed to limit the fee to trading activity that is

¹⁰ See Securities Exchange Act Release No. 81484 (August 25, 2017), 82 FR 41446 (August 31, 2017) (SR-IEX-2017-27).

¹¹ <u>See</u> Rule 11.190(b)(10).

 $^{^{12}}$ <u>See</u> Rule 11.190(b)(8).

¹³ 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. This limitation is designed to appropriately balance the protective benefits to Discretionary Peg and primary peg orders with the interest of avoiding potentially undue trading restrictions.

indicative of a deliberate trading strategy that may adversely affect execution quality on IEX and to not charge the fee to executions taking liquidity when the CQI is on that are likely to be incidental and not part of such a strategy.

As described in the CQRF rule filing, there are significant differences in short term markouts¹⁴ for resting and taking orders between executions when the CQI is on and off, regardless of whether the NBB (NBO) moves lower (higher) within two milliseconds of the Exchange's determination of quote instability. Moreover, the breakdown of orders entered and shares removed when the CQI is on or off evidences that certain trading strategies appear to involve entering liquidity taking orders targeting resting orders at prices that are likely to move adversely from the perspective of the resting order.

The CQRF has been incrementally successful in achieving its stated goal of reducing the incidence of liquidity taking orders when the CQI is on. The volume removed when the CQI is on has declined from 8.1% in December 2017 to 7.3% in April 2018 (see Chart 1 below). Further, 5 of 12 Members that surpassed the CQRF Threshold in December 2017 appear to have reduced such activity by at least 20% and one fell below the CQRF Threshold in April 2018.

¹⁴ The term markouts refers to changes in the midpoint of the NBBO measured from the perspective of either the liquidity providing resting order or liquidity removing taking order over a specified period of time following the time of execution.

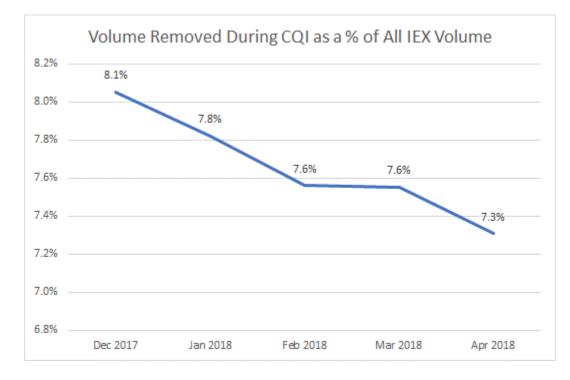


Chart 1

Moreover, although material differences in key metrics related to orders entered when the CQI is on and off have persisted following implementation of the CQRF, the Exchange has identified some incremental improvement which appears to be generally attributable to the CQRF comparing data from June 2017 to April 2018. Most significantly, the percentage of marketable orders received when the CQI is on has declined from 30.4% to 18.2%, notwithstanding that the amount of time the CQI is on has increased from 1.24 seconds (0.005% of time during Regular Market Hours¹⁵) to 1.84 seconds (0.008% of time during Regular Market Hours). Thus, based on the foregoing analysis, IEX believes that the CQRF has been incrementally effective in reducing order flow that targets resting liquidity at prices that are about to become stale. With respect to incentivizing liquidity adding order flow, the Exchange notes that IEX's overall volume has increased since implementation of the CQRF, and volume traded when the CQI is off

¹⁵ <u>See</u> IEX Rule 1.160 (gg).

has increased as a proportion of overall volume.¹⁶ With the confluence of factors that influence order flow decisions, it is inherently difficult to attribute such increases to the CQRF, particularly in the short period of time it has been in effect. Nonetheless, IEX believes that the CQRF has achieved some of its intended objectives already.

Beginning in May 2018, the Exchange incrementally optimized and enhanced the effectiveness of the quote instability calculation in determining whether a crumbling quote exists.¹⁷ As a result, the CQI is on more often. During May and June 2018, the CQI "fired" 28.6% more often per symbol per trading day (on average), compared to April 2018. However, shares removed when the CQI is on increased only 19.6%. The Exchange believes that this subsequent increase in CQI activity is attributable to the increased coverage of the signal as a result of the upgrade in May 2018, not a reduction in the effectiveness of the CQRF.

However, notwithstanding the incremental effectiveness of the CQRF, IEX believes that it is possible for a Member to circumvent (in whole or in part) the CQRF Threshold by routing orders to IEX that are part of a deliberate trading strategy that targets resting liquidity during periods of quote instability through another Member (using such Members' MPID) not engaged in such a strategy at all or to the same extent. Such a routing approach would thus consolidate the executions that take liquidity when the CQI is on with executions of the other executing Member thereby reducing the executions that exceed the CQRF Threshold and the resultant fee for the entering Member. This is because the consolidated pool of executions would contain a significant

¹⁶ Comparing December 2017 to April 2018, IEX average daily volume increased from 148 million shares to 155 million shares and IEX volume when the CQI is off increased from 91.9% to 92.7%.

¹⁷ <u>See</u> Securities Exchange Act Release No. 83048 (April 13, 2018), 83 FR 17467 (April 19, 2018) (SR-IEX-2018-07).

number of orders executed on behalf of the executing Member and its other customers that did not take liquidity when the CQI is on. Therefore, fewer of the entering Member's executions that take liquidity when the CQI is on would be above the 5% threshold when measured on an MPID basis.

In order to address the potential for ongoing and increased circumvention of the CQRF, IEX proposes to revise the threshold for imposition of the CQRF to more narrowly tailor it to trading activity that is indicative of a deliberate trading strategy that may adversely affect execution quality on the Exchange. As proposed, the CQRF Threshold would be revised in two respects. First, the 5% monthly CQRF Threshold would be measured and applied on a per logical port (also referred to as a "session") per MPID basis.¹⁸ Second, the 1 million share aspect of the CQRF Threshold would be eliminated. Therefore, on a monthly basis, the Exchange would determine whether the 5% threshold was reached within each session used by each Member's MPID. Incremental shares that removed liquidity while the CQI was on above the 5% threshold would be charged the CQRF.

IEX believes that Members generally use separate sessions within the same MPID to segment the order flow of particular customers and proprietary strategies. Thus, the Exchange believes that applying the CQRF Threshold on a per session per MPID basis, rather than solely per MPID, will result in a more fair application of the fee because it will more narrowly apply the fee to trading strategies that are indicative of a deliberate strategy that targets resting orders at prices that are likely to move adversely from the

¹⁸ Pursuant to the IEX Equities Port Request Form (available on IEX's website at <u>https://iextrading.com/docs/IEX%20Connectivity%20Agreements%20and%20Forms.pdf</u>), Members may request one or more connectivity ports to connect to IEX, through which the Member may send, or permit a Sponsored Participant of such Member, to send orders and order related messages to IEX.

perspective of the resting order and that thus may adversely affect execution quality on IEX. In addition, the change is designed to reduce potential circumvention of the CQRF by Members that consolidate orders under one MPID that are part of such deliberate trading strategies with orders that are not.

Eliminating the 1 million share aspect of the CQRF Threshold is designed to avoid potential circumvention whereby a Member could divide its orders that are part of such a deliberate trading strategy across multiple sessions in order to circumvent the CQRF by keeping each session below the 1 million share threshold. IEX does not charge for sessions, and thus Members can readily add additional sessions upon request.

Based on an analysis of data from June 2018, the Exchange estimates that 35 Members would be subject to monthly increases in the CQRF, totaling approximately \$94,000 and ranging from \$0.10 to \$36,351. Fourteen Members' increased fees would be more than \$1,000 and two would be over \$10,000. Twelve Members' fees would increase by less than \$100.

The Exchange will continue to provide the Fee Code Indicator of "Q" on execution reports to Members removing liquidity at or within the NBBO when the CQI is on.

IEX will implement the proposed fee change beginning on August 1, 2018.

2. <u>Statutory Basis</u>

IEX believes that the proposed rule change is consistent with the provisions of Section $6(b)^{19}$ of the Act in general, and furthers the objectives of Sections $6(b)(4)^{20}$ of the Act, in particular, in that it is designed to provide for the equitable allocation of

¹⁹ 15 U.S.C. 78f.

²⁰ 15 U.S.C. 78f(b)(4).

reasonable dues, fees and other charges among its Members and other persons using its facilities. Additionally, IEX believes that the proposed revisions to the CQRF is consistent with the investor protection objectives of Section $6(b)(5)^{21}$ of the Act in particular in that it is designed to promote just and equitable principles of trade, to remove impediments to a free and open market and national market system, and in general to protect investors and the public interest.

The CQRF is designed to enhance the Exchange's market quality by encouraging Members and other market participants to add more liquidity to the Exchange order book, which benefits all investors by deepening the Exchange's liquidity pool. Specifically, the Exchange believes that trading strategies that target resting liquidity during periods of quote instability seek to trade at prices that are about to become stale, and thus discourage other market participants from entering liquidity providing orders on the Exchange. The Exchange believes that the CQRF has been incrementally successful in achieving this goal. However, as described in the Purpose section, the Exchange has identified certain actual and potential ways in which the CQRF can be circumvented, which warrant revisions to the CQRF Threshold.

The proposed change to the applicable threshold for imposition of the CQRF is a limited and narrowly drawn approach that is designed to increase the fairness of the fee, and also mitigate and reduce the potential for circumvention, as described in the Purpose section. Specifically, the Exchange believes that applying the CQRF Threshold on a per session per MPID basis, rather than solely on a per MPID basis, will result in a more fair and narrowly tailored application of the fee because it will better focus the fee on

²¹ 15 U.S.C. 78f(b)(5).

deliberate trading strategies that target resting orders at prices that are about to become stale, thus reducing the potential that incidental trading activity not part of such a strategy towards the end of a month after the MPID has crossed the threshold could be subject to the CQRF. In addition, the change is designed to reduce potential circumvention of the CQRF by Members that intentionally consolidate orders that are part of such a deliberate trading strategy with orders that are not, within a single MPID. The Exchange understands that Members typically use separate sessions for distinct trading strategies and customers, and that therefore deliberate trading strategies that target resting orders at prices that are about to become stale would generally not be on the same session as trading strategies that do not target resting orders in such a manner. Thus, assessing the threshold on a per session per MPID basis, rather than per MPID, is designed to be even more fair and narrowly tailored since the approach will focus the fee on transactions that are part of a deliberate strategy that targets resting orders at prices that are about to become stale, and reduce the potential that the fee will be applied to incidental transactions not part of such a strategy.

As described in the Purpose section, elimination of the 1 million share threshold is designed to avoid potential circumvention whereby a Member could divide its orders that are part of deliberative trading strategies designed to target resting orders at prices that are about to become stale across multiple sessions in order to circumvent the CQRF by keeping each session below 1 million shares subject to the CQRF. In addition, the Exchange believes that the 5% threshold is sufficiently robust such that it is unlikely that a Member will accidentally breach the threshold and incur the CQRF. The CQI is on only 10.4 seconds per symbol per trading day on a volume weighted average basis, constituting 0.04% of the day per symbol. Consequently, the probability that a Member (or customer of a Member) not engaged in a deliberate strategy to target resting orders at prices about to become stale, would by chance trade when the CQI is on is about 1 in 2,340. The Exchange believes that it is highly unlikely for a Member to encounter a 1 in 2,340 chance event more than 5% of the time, and thus the 5% threshold is sufficiently robust to limit application of the CQRF to intentional activity. As described above, IEX believes that the per session per MPID threshold will more narrowly apply the fee to deliberate trading strategies that target resting orders at prices that are about to become stale, and is thus an even fairer and more narrowly tailored application of the fee as a result thereof. Accordingly, the Exchange believes that the proposed changes will incrementally enhance the effectiveness of the CQRF to incentivize resting liquidity on the Exchange by more effectively disincentivizing order flow that targets resting liquidity at prices that are about to become stale.

Other exchanges offer incentives in the form of rebates and/or reduced fees that are designed to encourage market participants to send increased levels of order flow to such exchanges. These typically take the form of lower fees and higher rebates for meeting specified volume tiers.²² These fee and rebate structures are typically justified by other exchanges on the basis that increased liquidity benefits all investors by deepening the exchange's liquidity pool, which provides price discovery and investor protection benefits.²³ The Exchange also notes that other exchanges charge different fees (or provide rebates) to the buyer and seller to an execution, which are generally referred

²² See, e.g., New York Stock Exchange Price List 2018, available at <u>https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSE_Price_List.pdf</u>. See also, Nasdaq Rule 7018.

²³ See, e.g., Securities Exchange Act Release No. 80034 (February 14, 2017), 82 FR 11275 (February 21, 2017) (File No. SR-BatsEDGX-2017-09).

to as either maker-taker or taker-maker pricing schemes. Typically, the exchange offering such pricing is seeking to incentivize orders that provide or remove liquidity, based on which type of orders receive a rebate. While these pricing schemes discriminate against the Member party to the trade that is charged a fee (in favor of the Member party to the trade that is charged a fee (in favor of the Member party to the trade that is paid a rebate) the Commission has not found these fees to be unfairly discriminatory in violation of the Act.²⁴

Similarly, the proposed changes to the CQRF Threshold seek to promote increased liquidity and price discovery on the Exchange by providing a fee designed to incentivize liquidity providing orders that can improve the quality of the market. The Exchange believes that, to the extent the fee, as revised, is successful in further reducing targeted and aggressive liquidity removing orders, it would contribute to investors' confidence in the fairness of transactions and the market generally, thereby benefiting multiple classes of market participants and supporting the public interest and investor protection purposes of the Act.

The Exchange believes that maker-taker and taker-maker pricing schemes in general create needless complexity in market structure in various ways and result in conflicts of interest between brokers and their customers. Accordingly, IEX has made a decision not to adopt rebate provisions in favor of a more transparent pricing structure that generally charges equal fees (or in some cases, no fee) for a particular trade to both the "maker" and "taker" of liquidity. Given this decision, IEX must use other means to incentivize orders to rest on its order book. IEX's execution quality is one important incentive, but this incentive can be undercut by trading strategies that target resting orders

²⁴ <u>See note 23 supra</u>.

during periods of quote instability. Accordingly, IEX believes that the CQRF, as it is proposed to be amended, is one reasonable way to compete with other exchanges for order flow, consistent with its exchange model and without relying on rebates.

The Exchange believes that the revised threshold for application of the CQRF is reasonable and equitable because it is designed to reduce potential circumvention of the CQRF and enhance both the fairness and narrowly tailored application of the fee. As amended, the CQRF would continue not to apply when executions taking liquidity while the CQI is on are likely to be incidental and not part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. The Exchange does not believe that the proposed CQRF Threshold changes would result in an increase in such incidental orders being charged the CQRF. To the contrary, the Exchange believes the proposed CQRF Threshold changes would result in more orders that are part of such deliberative strategies being charged, and the per session per MPID charge would result in fewer incidental orders being charged. Consequently, the Exchange believes that the proposed fee structure is not unfairly discriminatory because it is narrowly tailored to charge a fee only on trading activity that is indicative of a trading strategy that may adversely affect execution quality on IEX and is reasonably related to the purpose of encouraging liquidity providing orders on IEX without the use of rebates.

In particular, the Exchange believes that the data from April, May, and June 2018 supports the position that the proposed CQRF Threshold is narrowly tailored to charge the CQRF based on objective criteria indicating that execution of the orders in question reasonably appear to be part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. A pro forma analysis of June 2018 data evidences that had the CQRF been calculated under the proposed threshold per session per MPID, the order entry profile of sessions that would have been subject to the fee is materially different than sessions that would not have been subject to the fee with respect to orders entered when the CQI was on. For the 286 sessions above the CQRF Threshold, 19.0% of orders were received while the CQI was on (21.9% for the 135 sessions that would have been subject to more than \$500 in fees), while for sessions below the proposed CQRF Threshold this number was only 4.7%. The Exchange believes that this difference evidences that sessions above the proposed CQRF Threshold were more likely to be engaging in a deliberate strategy to target resting orders at soon to be stale prices.²⁵

The Exchange also believes that it is appropriate, and consistent with the Act, to not charge the CQRF to Members for executed shares on sessions that do not exceed the CQRF Threshold during the month in question, as measured on a per session per MPID basis. This is designed to address limited inadvertent liquidity removal by such Members when the CQI is on since such order flow during such times appears to be incidental.

The Exchange also believes that it is consistent with the Act and an equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities to measure whether the CQRF Threshold is reached on per session per MPID basis. As discussed above, the CQRF Threshold is designed to narrowly focus on executions that appear to be part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. The Exchange believes that Members that utilize multiple sessions generally use different sessions for different

²⁵ Thirty-seven Members would have been charged the CQRF, with 35 subject to increased fees. Those 37 Members traded through 565 separate sessions, 286 of which would have been subject to the CQRF. For Members that would be subject to increased fees, the number of sessions that would be charged ranges from 1 to 42.

trading strategies or customers. Therefore, the Exchange believes that measuring by session-MPID combination is a more precise manner of assessing whether a Member's trading strategy (or that of a customer) is part of a deliberate trading strategy that targets resting liquidity during periods of quote instability. Further, applying the CQRF Threshold on a per session per MPID basis is designed to address potential circumvention of the CQRF as described in the Purpose section.

Accordingly, the Exchange submits that the proposed CQRF Threshold is narrowly tailored to address particular trading strategies (rather than particular classes of Members) that may operate to disincentivize the entry of resting orders by other market participants. Specifically, and as discussed above, to the extent the proposed CQRF is successful in further reducing such trading strategies on IEX, it may result in market quality improvements which could benefit multiple classes of market participants.

The Exchange further believes that charging the CQRF only to the liquidity remover is equitable and not unfairly discriminatory because it is designed to incentivize order flow that enhances the quality of trading on the Exchange and disincentivize trading that does not. As discussed above, IEX believes that there are precedents for exchanges to charge different fees based upon meeting (or not meeting) particular criteria, as well as maker-taker and taker-maker pricing structures whereby the liquidity adder and remover to a trade are subject to differing fees and rebates, to incentivize certain types of trading activity. Fees and rebates based on maker-taker and taker-maker pricing as well as on volume-based tiers have been widely adopted by equities exchanges. And in some cases, maker-taker or taker-maker pricing has been combined with volumebased tiers that result in differential fees and rebates for different exchange members. These fee structures have been permitted by the Commission. For example, Cboe EDGA Exchange, Inc. ("EDGA") previously offered a rebate contingent upon adding specified amounts of liquidity to EDGA.²⁶ Notwithstanding that certain classes of exchange members (e.g., exchange routing brokers) do not typically add liquidity on competing exchanges, this fee structure was justified by EDGA on the basis that, generally, it encourages growth in liquidity on EDGA and applies equally to all members.²⁷ Similarly, while the proposed IEX fee structure will result in the CQRF being imposed only on Members using specific trading strategies, it is also designed to attract liquidity to IEX and applies equally to all Members.

The Exchange also notes that there is precedent to charge a different fee (or pay a different rebate) based on the execution price of an order. The Cboe BZX Exchange, Inc. ("BZX") pays a rebate of \$0.0015 to a non-displayed order that adds liquidity, while if such an order receives price improvement it does not receive a rebate or pay a fee.²⁸

Thus, maker-taker, taker-maker, and volume tier based fee structures (separately or in combination) have been adopted by other exchanges on the basis that they may discriminate in favor of certain types of members but not in an unfairly discriminatory manner in violation of the Act. As with such fee structures, the Exchange believes that the proposed fee change is equitable and not unfairly discriminatory because it is narrowly tailored to disincentive to all Members from deploying trading strategies designed to chase short-term price momentum during periods when the CQI is on and

²⁶ See Securities Exchange Act Release No. 80976 (June 20, 2017), 82 FR 28920 (June 26, 2017) (SR-BatsEDGA-2017-18).

²⁷ See, e.g., Securities Exchange Act Release No. 69066 (March 7, 2013), 78 FR 16023 (March 13, 2013) (SR-EDGA-2013-10).

²⁸ See Cboe BZX Exchange Fee Schedule, available at: http://markets.cboe.com/us/equities/membership/fee_schedule/bzx/.

thus potentially adversely impact liquidity providing orders. IEX believes that, to the extent it is successful in this regard, the proposed fee structure may lead to increased liquidity providing orders on IEX which could benefit multiple classes of market participants through increased trading opportunities and execution quality.

Further, the Exchange notes that the Nasdaq Stock Market ("Nasdaq") charges excess order fees (ranging from \$0.005 to \$0.01 per excess weighted order) on certain members that have a relatively high ratio of orders entered away from the NBBO to orders executed in whole or in part, subject to a carve-outs for specified lower volume members and certain registered market makers.²⁹ In its rule filing adopting the fee Nasdaq justified it as designed to achieve improvements in the quality of displayed liquidity to the benefit of all market participants.³⁰ Nasdaq also asserted that the fee is reasonable because market participants may readily avoid the fee by making improvements in their order entry practices, noting that "[i]deally, the fee will be applied to no one because market participants will adjust their behavior to avoid the fee."³¹

Similarly, the IEX CQRF, as revised, is designed to incentivize the entry of liquidity providing orders that can enhance the quality of the market and disincentivize certain liquidity removing orders that can degrade the quality of the market. Participants can manage their fees by making adjustments to their order entry practices, to decrease their entry of orders designed to target resting liquidity during periods of quote instability. And, as with the Nasdaq excess order fees, ideally, the fee will be applied to no one, because participants will adjust their trading activity to account for the pricing

²⁹ <u>See</u> Nasdaq Rule 7018(a)(3)(m).

 ³⁰ See, Securities Exchange Act Release No. 66951 (May 9, 2012), 77 FR 28647 (May 15, 2012) (File No. SR-NASDAQ-2012-055).

 $^{^{31}}$ <u>Id</u>.

change. Thus, the Exchange believes that the fee of \$0.0030 per share executed at or above \$1.00 is reasonably related to the trading activity IEX is seeking to disincentivize.

IEX also believes that it is appropriate, reasonable and consistent with the Act, to charge a fee of 0.0030 per share executed at or above 1.00 (or 0.3% of the total dollar value of the transaction for securities priced below \$1.00) that exceed the CQRF Threshold described herein because it is within the transaction fee range charged by other exchanges³² and consistent with Rule 610(c) of Regulation NMS.³³ Although the amount of the CQRF may not be adequate to fully disincentivize Members from deploying trading strategies designed to chase short-term price momentum during periods when the CQI is on, the Exchange is hopeful that it will further reduce such activity based on the economic disincentives that the CQRF will provide.

Moreover, IEX believes that the CQRF will help 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 regulating, clearing, settling, processing information with respect to, and 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, because the CQRF is designed to reduce the entry of liquidity removing orders that can degrade the quality of the market and incentivize liquidity providing orders that can improve the quality of the market, thereby promoting greater order interaction and inhibiting potentially abusive trading practices.

Finally, and as discussed in the Burden on Competition section, the Exchange

³² <u>See note 22 supra.</u> ³³ 17 CFR 242.610(c)(1).

notes that it operates in a highly competitive market in which Members and market participants can readily direct order flow to competing venues if they deem fee levels to be excessive.

B. <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

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. The Exchange does not believe that the proposed rule change will impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. To the contrary, the Exchange believes that the proposed pricing structure may increase competition and hopefully draw additional volume to the Exchange by enhancing the quality of executions across all participants when the CQI is on. As discussed in the Statutory Basis section, the proposed fee structure is a narrowly tailored approach, designed to enhance the Exchange's market quality by incentivizing trading activity that the Exchange believes enhances the quality of its market. The Exchange believes that the proposed revisions to the CQRF Threshold would contribute to, rather than burden, competition, as the CQRF is intended to incentivize Members and market participants to send increased liquidity providing order flow to the Exchange, which may increase IEX's liquidity and market quality, thereby enhancing the Exchange's ability to compete with other exchanges. Further, with the proposed revisions to the CQRF Threshold, the CQRF would continue to be in line with fees charged by other exchanges.

The Exchange operates in a highly competitive market in which market participants can readily favor competing venues if fee schedules at other venues are viewed as more favorable. Consequently, the Exchange believes that the degree to which IEX fees could impose any burden on competition is extremely limited, and does not believe that such fees would burden competition of Members or competing venues in a manner that is not necessary or appropriate in furtherance of the purposes of the Act.

The Exchange does not believe that the proposed rule change will impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act because, while the CQRF, as revised, would only be assessed in some circumstances, those circumstances are not based on the type of Member entering the liquidity removing order but on the percent of liquidity removing volume that the Member executes when the CQI is on. Further, the proposed revisions to the CQRF Threshold are intended to encourage market participants to bring increased volume to the Exchange, which benefits all market participants.³⁴

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

Written comments were neither solicited nor received.

³⁴ See e.g., IEX's white paper that utilized publicly available quote and trade data to compare market quality across U.S. stock exchanges, which empirically found, *inter* alia, that on average IEX has the lowest effective spread, and the greatest opportunity for price improvement amongst all exchanges. A Comparison of Execution Quality across U.S. Stock Exchanges, Elaine Wah, Stan Feldman, Francis Chung, Allison Bishop, and Daniel Aisen, Investors Exchange (2017). Effective spread is commonly defined by market structure academics and market participants as twice the absolute difference between the trade price and prevailing NBBO midpoint at the time of a trade, and is generally meant to measure the cost paid when an incoming order executes against a resting order, and unlike quoted spread captures other features of a market center, such as hidden and midpoint liquidity as well as market depth. Price improvement is in reference to the situation where an aggressive order is filled at a price strictly better than the inside quote (i.e., in the case of an aggressive buy (sell) order, receiving a fill at a price lower (higher) than the NBO (NBB)). See also, Hu, Edwin, Intentional Access Delays, Market Quality, and Price Discovery: Evidence from IEX Becoming an Exchange (February 7, 2018). Available at SSRN: https://ssrn.com/abstract=3195001

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

The foregoing rule change has become effective pursuant to Section $19(b)(3)(A)(ii)^{35}$ of the Act.

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 $19(b)(2)(B)^{36}$ 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 (<u>http://www.sec.gov/rules/sro.shtml</u>); or
- Send an email to <u>rule-comments@sec.gov</u>. Please include File Number SR-IEX-2018-16 on the subject line.

Paper Comments:

• Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and

³⁵ 15 U.S.C. 78s(b)(3)(A)(ii).

³⁶ 15 U.S.C. 78s(b)(2)(B).

Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-IEX-2018-16. 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, on official business days between the hours of 10:00 a.m. and 3:00 p.m. 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-2018-16 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

³⁷ 17 CFR 200.30-3(a)(12).

Exhibit 5 – Text of Proposed Rule Change

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

Investors Exchange Fee Schedule

Effective [July] August 1, 2018

Transaction fees

- All fees identify cost per share executed unless otherwise specified.
- Footnotes provide further explanatory text or indicate variable rate changes, provided the conditions in the footnote are met.
- The rates listed in the Base Rates table apply unless a Member's transaction is assigned a Fee Code other than a Base Fee Code (an "Additional Fee Code"). If a Member's transaction is assigned an Additional Fee Code, the rates listed in the Fee Codes and Associated Fees table will apply.
- Executions below \$1.00 are assessed a fee of 0.30% of TDV unless the Fee Code Combination results in a FREE execution.
- The Exchange passes-through in full any fees charged by/rebates received from away venues ("Cost") to the Member and adds the IEX fee (i.e., a \$0.0001 charge per share).

Definitions

- "Fee Code" is identified on each execution report message from the Exchange in the Trade Liquidity Indicator (FIX tag 9730) field.
- "MPID" means a market participant identifier.
- "TDV" means the total dollar value of the execution calculated as the execution price multiplied by the number of shares executed in the transaction.
- "Quote instability" is defined in IEX Rule 11.190(g).
- "CQRF Threshold" means the Crumbling Quote Remove Fee Threshold. The threshold is equal to 5% of the sum of a Member's total monthly executions on IEX [if at least 1,000,000 shares during the calendar month,] measured on a[n] <u>per logical port (i.e., session) per MPID basis.</u>
- "Spread-crossing eligible order" means a buy order that is executable at the NBO or a sell order that is executable at the NBB after accounting for the order's limit (if any), peg instruction (if any), market conditions, and all applicable rules and regulations.

Dast Matts.			
Base Fee		Executions at	Executions
Codes	Description	or above \$1.00	below \$1.00
			0.30% of
I, X	Standard Match Fee	\$0.0009	TDV

Base Rates:

			0.30% of
L	Reduced Match Fee	\$0.0003	TDV
			0.30% of
O, C, H, P	Auction Match Fee	\$0.0003	TDV
	Routing and removing liquidity (all routing		
Alpha	options)	Cost + \$0.0001	

Fee Code Modifiers:

Additional		Fee
Fee Codes	Description	
	Internalization Fee: Member executes against resting liquidity	FREE
S	provided by such Member	
	Crumbling Quote Remove Fee: removes liquidity during periods of	\$0.0030
	quote instability at or within the NBBO above the CQRF	
Q	Threshold, measured on an MPID basis ¹	
	Spread-Crossing Eligible Remove Fee: removes liquidity with a	\$0.0003
Ν	spread-crossing eligible order	
	Discounted Single-Price Cross Fee: displayed interest resting on the	FREE
D	Continuous Book executes in a cross or auction	

Market Quality Incentive Programs:

IEX Enhanced Market Maker ("IEMM Rates"): Unless an IEX Enhanced Market Maker ("IEMM") pursuant to Rule 11.160(a) otherwise qualifies for a lower rate, IEMMs will receive the following discounts for executions during continuous trading in securities priced at or above \$1.00. If a Member qualifies under both the Inside Tier and the Depth Tier, any earned Standard Match Fee Discount, Reduced Match Fee Discount, and Spread-Crossing Eligible Remove Fee Discount will be aggregated and applied to such Member's executions subject to the Standard Match Fee, Reduced Match Fee, or Spread-Crossing Eligible Remove Fee in securities priced at or above \$1.00, subject to the applicable Depth Tier aggregate monthly savings cap of \$20,000.00.

IEMM Tier	Standard Match Fee Discount	Reduced Match Fee Discount	Spread-Crossing Eligible Remove Fee Discount
Inside Tier	\$0.0001	\$0.0001	\$0.0001
Depth Tier	\$0.0001	\$0.0001	\$0.0001

Fee Code Combinations and Associated Fees:

Fee Codes	Description	Fee
Ι	Adds or removes non-displayed liquidity	\$0.0009
L	Adds or removes displayed liquidity	\$0.0003
	Member executes against resting non-displayed liquidity provided by	FREE
IS	such Member	
IQ^1	Removes non-displayed liquidity during periods of quote instability	\$0.0009
IN	Removes non-displayed liquidity with a spread-crossing eligible order	\$0.0003
LS	Member executes against resting displayed liquidity provided by such	FREE

	Member	
LQ^1	Removes displayed liquidity during periods of quote instability	\$0.0003
LN	Removes displayed liquidity with a spread-crossing eligible order	\$0.0003
ISQ ¹	Member removes non-displayed liquidity provided by such Member during periods of quote instability	FREE
ISN	Member removes non-displayed liquidity provided by such Member with a spread-crossing eligible order	FREE
IQN ¹	Removes non-displayed liquidity during periods of quote instability with a spread-crossing eligible order	\$0.0003
LSQ ¹	Member removes displayed liquidity provided by such Member during periods of quote instability	FREE
LSN	Member removes non-displayed liquidity provided by such Member with a spread-crossing eligible order	FREE
LQN ¹	Removes displayed liquidity during periods of quote instability with a spread-crossing eligible order	\$0.0003
ISQN ¹	Member removes non-displayed liquidity provided by such Member during periods of quote instability with a spread-crossing eligible order	FREE
LSQN ¹	Member removes non-displayed liquidity provided by such Member during periods of quote instability with a spread-crossing eligible order	FREE
X	Opening Process for Non-Listed Securities ("Opening Process")	\$0.0009
XD	Displayed interest resting on the Continuous Book executes in the Opening Process	FREE
0	Opening Auction, IEX-listed security	\$0.0003
OD	Displayed interest resting on the Continuous Book executes in the Opening Auction	FREE
С	Closing Auction, IEX-listed security	\$0.0003
CD	Displayed interest resting on the Continuous Book executes in the Closing Auction	FREE
Н	Halt or Volatility Auction, IEX-listed security	\$0.0003
Р	IPO Auction, IEX-listed security	\$0.0003

¹ Crumbling Quote Remove Fee: Executions with Fee Code Q that exceed the CQRF Threshold are subject to the Crumbling Quote Remove Fee identified in the Fee Code Modifiers table. Executions with Fee Code Q that do not exceed the CQRF Threshold are subject to the fees identified in the Fee Codes and Associated Fees table.