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) of the Securities Exchange Act of 1934 (the “Act”) and Rule 19b-4 thereunder, notice is hereby given that, on July 26, 2018, the Investors Exchange LLC (“IEX” or the “Exchange”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I, II and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

Pursuant to the provisions of Section 19(b)(1) under the Securities Exchange Act of 1934 (“Act”), and Rule 19b-4 thereunder, 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 www.iextrading.com, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

---

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

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statement may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

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

1. **Purpose**

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

\(^6\) Executions below $1.00 are assessed a fee of 0.30% of TDV unless the Fee Code Combination results in a free execution. See [Investors Exchange Fee Schedule](#), available on the Exchange public website.
Quotations\textsuperscript{7} and a proprietary mathematical calculation (the “quote instability calculation”) to assess the probability of an imminent change to the current Protected National Best Bid\textsuperscript{8} to a lower price or the Protected National Best Offer\textsuperscript{9} 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 two-millisecond 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”),\textsuperscript{10} the Exchange identified that Members entering liquidity taking orders when the CQI was on appeared to be able to

\textsuperscript{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.

\textsuperscript{8} See, Rule 600(b)(42) under Regulation NMS.

\textsuperscript{9} See supra note 8 [sic].

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 orders\textsuperscript{11} and primary peg orders\textsuperscript{12} which do not exercise price discretion when the CQI is on.\textsuperscript{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 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.

\textsuperscript{11} \textit{See }Rule 11.190(b)(10).

\textsuperscript{12} \textit{See }Rule 11.190(b)(8).

\textsuperscript{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.
As described in the CQRF rule filing, there are significant differences in short term markouts\textsuperscript{14} 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.

![Volume Removed During CQI as a % of All IEX Volume chart](chart1)

\textbf{Chart 1}

\textsuperscript{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.
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 Hours\(^\text{15}\)) 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.\(^\text{16}\) 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.\(^\text{17}\) 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,

\(^\text{15}\) See IEX Rule 1.160 (gg).

\(^\text{16}\) 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%.

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. Second, the 1 million share aspect

---

18 Pursuant to the IEX Equities Port Request Form (available on IEX’s website at https://iextrading.com/docs/IEX%20Connectivity%20Agreements%20and%20Forms.pdf), Members may request one or more connectivity ports to connect to IEX, through which
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.

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 Member may send, or permit a Sponsored Participant of such Member, to send orders and order related messages to IEX.
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. Statutory Basis

IEX believes that the proposed rule change is consistent with the provisions of Section 6(b)\textsuperscript{19} of the Act in general, and furthers the objectives of Sections 6(b)(4)\textsuperscript{20} 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)\textsuperscript{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.

\textsuperscript{21} 15 U.S.C. 78f(b)(5).
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. 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. 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.

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.


24 See note 23 [sic] supra.
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.  

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

---

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.
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 volume-based 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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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 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

\begin{itemize}
\end{itemize}
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. 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. 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.”

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.

29 See Nasdaq Rule 7018(a)(3)(m) [sic].
31 Id.
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 exchanges and consistent with Rule 610(c) of Regulation NMS. 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.

32 See note 22 [sic] supra.
33 17 CFR 242.610(c)(1).
B. Self-Regulatory Organization’s Statement on Burden on Competition

IEX does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. 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.\footnote{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, \textit{inter alia}, that on average IEX has the lowest effective spread, and the greatest opportunity for price improvement amongst all exchanges. \textit{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 \textit{(i.e.,} in the case of an aggressive buy (sell) order, receiving a fill at a price lower (higher) than the NBO (NBB)). \textit{See also}, Hu, Edwin, Intentional Access Delays, Market Quality, and Price Discovery: Evidence from IEX Becoming an Exchange (February 7, 2018). Available at SSRN: \url{https://ssrn.com/abstract=3195001}}

C. \textbf{Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others}

Written comments were neither solicited nor received.

III. \textbf{Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action}


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)\textsuperscript{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 (http://www.sec.gov/rules/sro.shtml); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-IEX-2018-16 on the subject line.

Paper Comments:

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

All submissions should refer to File Number SR-IEX-2018-16. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s Internet 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 Room, 100 F Street, NE, Washington, DC 20549-1090.

Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change.

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.\textsuperscript{37}

Eduardo A. Aleman
Assistant Secretary

\textsuperscript{37} 17 CFR 200.30-3(a)(12).