November 6, 2015

Brent Fields
Secretary
Securities and Exchange Commission
100 F. Street N.E.
Washington, D.C. 20549-1090

RE: Investors' Exchange, LLC ("IEX"); Notice of Filing of Application, as Amended, for Registration as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934; Release No. 34-75925; File No. 10- 222.

Dear Mr. Fields:

The Healthy Markets Association[1] appreciates the opportunity to comment on the above-referenced Form 1 application for registration as a national securities exchange filed by IEX.[2] Without expressing an opinion on the SEC's decision regarding IEX's application itself,[3] we wanted to express our views on some of the important policy issues implicated by the application.

We would like to focus on four key elements of IEX's application:

- Elimination of advantages of co-location through the use of time delay;
- Reduction in complexity by offering a limited number of order types;
- Reduction of conflicts of interest by adopting a fee structure that does not include maker-taker pricing; and
- Potential conflicts regarding exchange order routers.

[1] Healthy Markets is a not-for-profit association of institutional investors working together with other market participants to promote data-driven reforms to market structure challenges. Our members, who range from a few billion to hundreds of billions of dollars in assets under management, have come together behind one basic principle: Informed investors and policymakers are essential for healthy capital markets. For more information about Healthy Markets or our work, please see http://www.healthymarkets.org.
[2] Dave Lauer is the Chairman of the Healthy Markets Association. Mr. Lauer was involved in the early designs of IEX, has a small equity position, and is named in an IEX patent. Mr. Lauer also serves as Independent Director of Aequitas, a Canadian Stock Exchange with a systematic processing delay applied to latency-sensitive traders.
[3] Several of our members have separately commented on the IEX application with the SEC. *See* Letter from O. Mason Hawkins *et al.*, to Brent Fields, Sec. and Exch. Comm'n, (Sept. 30, 2015), *available at*: http://www.sec.gov/comments/10-222/10222-3.pdf.

Elimination of Advantages of Co-location

One of the more publicly controversial elements of the modern market structure has been the development of co-location, where data from an exchange is shared with some traders who locate their servers in the exact same data centers as the exchange. By being located in the same physical facility, the time lag in communications between the co-located trader and the exchange is significantly reduced. But because of the strong desire for market participants to be first, even within the data centers, exchanges must be very careful to ensure that one co-located firm is not able to access the exchange's data faster than another. To ensure this parity amongst co-located firms, exchanges engage in a number of hardware and software strategies, including lengthening and shortening cables between the co-located firms and the exchanges' order entry gateways.

Thus, currently, at exchanges today, each co-located firm is given a carefully measured time delay to ensure that its communications with the exchange occur at the exact same speed as other co-located firms--and all of them are able to access the information ahead of any non-co-located firm.

Some may think of this as people who would like to pay more to ride the Acela between New York and Washington, DC, while others may pay less to ride the Northeast Regional train. The passengers on each train all arrive at the same time, but the Acela passengers (who pay more) always arrive first. In today's equities markets, arriving first means millions of dollars for firms. That is why we have seen technology firms tunnel through mountains to reduce the time it takes to send messages between New Jersey and Chicago. And it is also why real-estate prices near exchange data centers have risen, and why fiber optic cables have been replaced in many areas by microwave towers.

One way to end this "race to zero" is to simply build in a time buffer, much like the exchanges already do to ensure that their co-located customers are all treated the same. IEX has built that time buffer to be so large as to entirely remove any advantage for co-location. To create this time buffer, IEX has coiled at least 38 miles of cable between its network termination point (the POP) and its order entry gateway. In this way, IEX's matching engine is always aware of any price changes at other market centers before the fastest trading participants are able to act on those price changes. In the time it takes data to run through this coil, any advantage of "being first" is lost--because the rest of the world has already moved on.

Some commenters may take issue with this delay. It strikes us as helpful to consider two examples in the past that are relevant to the IEX model. The first harkens back to the days of physical trading floors. While we do not wish to return to such a model, and realize the benefits of electronic trading, the Commission never appeared to be concerned with those floor brokers who were slower at walking across the floor than others. There was no minimum speed requirement to participate as a trader. In this analogy, IEX is simply choosing to walk more slowly than the others, to insure it does not trip on a crowded floor.

Another, more recent example is the latency disparity between the SIP and the direct market data feeds. It has been understood since the advent of direct, proprietary data feeds that there was a significant latency difference between those feeds and the SIP. This chart from the Financial Information Forum shows the average difference from October 2010 to June of 2013:

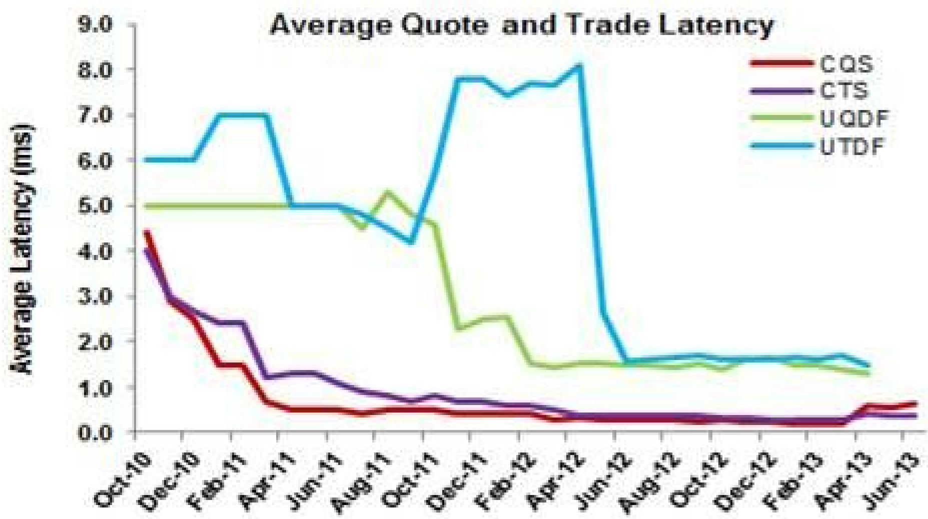

Figure 1: Average Quote and Trade Latency for SIP. Source: Financial Information Forum

During this time period, exchanges that used SIP market data to price the NBBO in their matching engines were using quotes that were, on average, 0.5 - 8.0 milliseconds delayed. For the period prior to October 2010 the numbers were even more significant, with averages often in the 30ms - 40ms range. What this chart does not show is the distribution of these latencies. These distributions were heavily skewed, with significant numbers of outliers in the tens and hundreds of milliseconds.

Importantly, the SEC has never prohibited an exchange from using the delayed SIP feed for its matching engine. In fact, the NYSE continues to use the SIP in this manner[4]. Given that the delay for IEX of 350 microseconds is orders of magnitude shorter than the variable lags between the SIP and the proprietary feeds, we believe IEX's proposed time delay is consistent with existing practices already approved by the SEC.

Another issue raised by the time delay might be whether to include IEX in the NBBO calculation. As a matter of policy, Healthy Markets supports greater inclusion into the NBBO. With respect

[4] *See* NYSE Filing SR-NYSE-2015-09, Release No. 34-74410, March 2, 2015, *available at*, http://www.sec.gov/rules/sro/nyse/2015/34-74410.pdf.

to the inclusion of IEX quotes in the NBBO, here, again, we suggest that the SEC remain consistent with its precedent. The NBBO already includes quotes with varied degrees of time lag. The IEX cable distance of 38 miles is far less than the distance between NY and Chicago, and is remarkably similar to the distance between Carteret and Mahwah (36 miles). In our view, excluding IEX quotes from the NBBO based on its time delay would be to suggest that all exchanges providing inputs into the NBBO must have all of their operations consolidated into a single datacenter.

Reducing Complexity by Having a Only a Few, Simple Order Types

In recent years, exchanges have increasingly offered numerous, custom-designed, complex order types.[5] Many of these order types have been promulgated to attract or retain certain high-volume, low latency traders, who often seek to maximize their rebates while minimizing costs. These order types may, at times, make it easier for certain traders to take advantage of institutional traders' orders.

The proliferation of these complex order types has recently come into focus at the SEC and at some market centers. Some market centers have made efforts to reduce their order types. For example, shortly after ICE acquired NYSE, its Chief Executive famously declared his intention to significantly reduce the number of complex order types used on NYSE.[6] We applaud those efforts to reduce complexity. Unfortunately, there is still a long ways to go.

We believe that IEX's proposal to offer just a handful of order types simplifies trading and reduces risks for investors, and we urge other market centers to reduce complexity and potential abuses by offering a limited number of order types that are well-understood by all of the market centers' participants.

Two additional points regarding IEX's pegged order types deserve discussion:

1. IEX pegged order types are not subject to the 350 microsecond coiled fiber when performing a book re-check.
2. The IEX Discretionary Peg order type is a novel solution to address an issue of concern for many institutional investors--crumbling quotes.

Addressing the first issue, we fail to see the distinction between this functionality and that of other market centers. As previously stated, other exchanges use measures (including subjective lengths of cable) to ensure that all co-located participants have the same speed into the matching engine. When those exchanges have a price change that requires their book to be re-checked for pegged order types, those re-checks are also privileged - they are not subject to

[5] Many of these complex order types have equally complicated names like "hide not slide" and "add liquidity only post no preference blind."
[6] *See, e.g.*, Sam Mamudi and Matthew Leising, *NYSE to Curtail Order Types Amid Debate Over Their Fairness*, Bloomberg, May 8, 2014.

this cable length, nor do they have to transit the exchange's order entry gateways (which add a non-trivial amount of latency for all inbound/outbound messaging).

Addressing the second issue, the Discretionary Peg appears to offer institutional investors protections that result in similar outcomes to those achieved by high-speed proprietary traders who continuously modify and reprice their orders. Far from being a "black box," IEX has posted the full equation for determining a crumbling quote in their Form 1 application[7]. Thus, while the approach is novel, it is also readily transparent.

Reduction in Conflicts of Interest by Adopting an Investor-Friendly Fee Structure

Healthy Markets has long supported a maker-taker pilot program, and we were encouraged by the SEC staff's indications at the most-recent Equity Market Structure Advisory Committee (EMSAC) that both the SEC and the EMSAC may be looking into it.

As has been discussed for years, including in US Senate hearings[8] and at the most-recent EMSAC meeting, the maker-taker pricing model creates a significant conflict of interest for a routing broker. We recommend that institutional investors seek to utilize market centers with lesser conflicts of interest.

IEX has proposed to not adopt the maker-taker fee structure.[9] While an exchange may change its fee structure, we hope that IEX is able to maintain its structure despite the potential negative impact it may have on market share in the near-term.

Healthy Markets remains concerned that such a fee structure will have difficulty succeeding in an environment in which exchange rebates exist, due to the prisoner's dilemma we have highlighted several times.[10] Nasdaq's laudable effort in addressing this concern through its low-access fee pilot was a clear illustration of this dilemma. Even in a situation in which execution quality improved,[11] Nasdaq's market share suffered.[12] In the end, brokers will be

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[7] IEX Form 1 Application, 210, *available at*, http://www.sec.gov/rules/other/2015/investors-exchange-form-1-exhibits-a-e.pdf#page=210

[8] *See, e.g., Conflicts of Interest, Investor Loss of Confidence, and High Speed Trading in U.S. Stock Markets, Before the Homeland Sec. and Gov't Affairs Committee, Permanent Subcommittee on Investigations*, 113th Cong. (2014).

[9] See, http://iextrading.com/trading/#pricing.

[10] *See, e.g., The Role of Regulation in Shaping Equity Market Structure and Electronic Trading Before The Committee on Banking, Housing, and Urban Affairs*, 113th Cong. (2014) (Statement of Dave Lauer), *available at*, http://www.healthymarkets.org/senate-regulation-and-market-structure; *see also*, *Statement of Dave Lauer before the Sec. and Exch. Comm'n, Equity Market Structure Advisory Cmte* (May 13, 2015),, *available at* https://www.sec.gov/comments/265-29/26529-15.pdf

[11] *See, e.g.*, Takeaways from the Nasdaq Pilot Program from ITG: "NASDAQ market share decreased over the whole test period, both in quoted and traded volume.", *available at*, http://www.itg.com/2015/06/02/takeaways-from-the-nasdaq-pilot-program/

[12] *Id.*, ("Overall market quality impact appears positive due to a significant increase in aggregate top of book depth.").

hard-pressed to not send their customers' orders to venues where they are paid the most or charged the least--even if their customers' orders may be more likely to get more complete fills elsewhere. We therefore continue to urge the SEC to create a careful maker-taker pilot program, and we look forward to the likely proposal from the SEC's Equity Market Structure Advisory Committee.

IEX's Order Router

IEX has proposed to operate its own order router. As we presented to the SEC's Equity Market Structure Advisory Committee in our presentation on Rule 611,[13] we are concerned by any market center that also operates an order router for anything other than for order protection purposes.[14] Put simply, any trading venue that operates a router may be tempted to favor its own venue over others. This issue has also recently arisen in some enforcement cases.

Healthy Markets does not believe there is sufficient disclosure in place to understand how order routers and market centers (be they exchanges or ATSs) interact, and to ensure there is sufficiently independent operation between an exchange's core mission and its order routing operations. We believe that no market center should operate an order router until sufficient disclosures are in place to protect investors and the public.[15]

For example, we remain concerned that exchanges' order routers' decisions are not subject to a sufficient level of examination and analysis. We urge the SEC to, at a minimum, have exchanges publish Rule 606 reports.[16]

That being said, we recognize that we are in an environment in which such arrangements have been approved by the SEC, and therefore do not believe that IEX should be unduly burdened relative to any other market center.

It is our understanding that the IEX order router would not have privileged access to the IEX order book. The IEX order router, based on our understanding, would be similar to an unaffiliated third-party. It would receive order instructions from the Exchange, and route accordingly. It would only route orders outbound, and would not route them to the IEX order book, which also addresses one of the primary concerns Healthy Markets has with market centers operating order routers. This detail should also address concerns that have already

[13] *Statement of Dave Lauer before the Sec. and Exch. Comm'n, Equity Market Structure Advisory Cmte* (May 13, 2015), *available at* https://www.sec.gov/comments/265-29/26529-15.pdf.
[14] As we have stated before, the SEC should reconsider keeping the burden on an exchange to route orders to its competitors, and instead consider placing that burden on the brokers who sent the orders to the exchange. Broker order routing technology is likely far more sophisticated and efficient than that of an exchange. This could only be done with significant improvements to Best Execution requirements and disclosures.
[15] *Statement of Dave Lauer before the Sec. and Exch. Comm'n, Equity Market Structure Advisory Cmte* (May 13, 2015), *available at* https://www.sec.gov/comments/265-29/26529-15.pdf.
[16] Of course, as we have previously stated, we also recommend that Rule 606 reports be modernized to allow for more meaningful analysis.

been expressed regarding the IEX order router - it has no need to consume IEX's market data, and therefore would not benefit from any kind of "privileged" market data feed not subject to their 350 microsecond buffer.

These distinctions greatly reduce the potential conflicts of interest in its order routing function, and we would encourage the SEC to consider similar restrictions on other market center order routers.

Conclusion

IEX's Form 1 application raises a number of critical issues for the SEC to consider, and we hope that it will provide IEX with similar flexibility as it has granted other market centers. At the same time, we want to urge caution. As we have seen in Canada, regulatory approval of a systematic processing delay with a very laudable goal of leveling the playing field for investors and traders, may be co-opted by those seeking to further unlevel the field. As the SEC considers approving the IEX model, that should not mean that all future applications or filings that propose a systematic delay should also be approved. Each must be evaluated on its own merits, with caution and consideration given to the incentives of the venues making such proposals, and to the effects on market structure.

Sincerely,

Dave Lauer
Chairman, Healthy Markets Association