IEX Stock Exchange

What's the best way to get a limit order executed on the NYSE? Cancel it.

In the history of stock markets, the IEX story is a unique one. A product of today's popular media culture, IEX has ridden a wave of public support, triggered by Michael Lewis' "Flash Boys" and his proclamation on national television that the "markets are rigged". Mr. Lewis anointed the founders of IEX as heroes, whose innovation provide an answer to unfair advantages created by modern technology. As a result, the IEX market share has grown rapidly, despite profit margins that are higher than their competition and limited proof that they are actually delivering improved execution quality[1].

It's no wonder, that the IEX application is to become an official stock exchange, has generated controversy. There have been several well-articulated comments from exchanges and broker dealers that are highly critical of the application. The focal point of their arguments concern the IEX "magic shoe box" and whether or not the "speed bump" it creates should preclude quotes on their exchange from being protected. (For those readers not aware of their methodology, IEX uses a box of coiled

fiber optic cable to create a uniform 350 microsecond delay to and from their matching engine.) IEX (and Mr. Lewis) has made the claim that this delay is enough to prevent latency arbitrage from high frequency traders, which means their exchange is a "safer" place to post orders. This has helped IEX position themselves as the defender of long term investors against evil, "High Frequency Traders" and is a major part of their marketing strategy.

Crucial to the ongoing debate is to determine if and how IEX can fit into the national market system as an exchange. In addition to ensuring that IEX functions within all SEC regulations, it's also important that they're held to the principles of transparency and fairness they espouse. Unfortunately, the advantage that the proposed IEX exchange provides to their affiliated routing broker is not…

Routing is a key component of broker-dealer electronic trading offerings and those with more efficient routers are in position to provide better quality of execution and attract incremental order flow. Thus, since IEX offers routing in direct competition with broker dealers and other exchanges, it is vital that their exchange platform not provide any inherent advantages to their router. However, hats not the case, as the fact that their router is not subject to the IEX "speed bump" is a clear advantage. It is a clear example of a two tiered market, which, as I have previously argued, is something that we should try very hard to avoid.

Frankly, I find it appalling that IEX defended their router in their comment letter to the SEC, particularly considering how they position themselves as the fairest market. To paraphrase IEX's argument, they argued that their router does not even receive market data from their matching engine. As a result, they argued that it is not really exempt from the speed bump. This argument is pure hooey.

IEX's twisted language conceals a very important fact: Their router does not need to receive market data from their own book. That is because it *only* receives orders when the IEX book no longer has quantity available at that price. Thus, the router can infer that a quote has updated

even when that update is working its way through the "speed bump". Thus, their router will be able to start routing orders to other exchanges *before* those exchanges "see" the IEX quote disappear. Other competing commercial routers, however, would not be able to do so, and would therefore be at a disadvantage. In situations where IEX was the last quote at a price level, competing routers would either have to wait the full 350 microseconds or send ISO orders (and wait for the delayed response) to the IEX exchange before commencing to route to other venues. For routing strategies that wait for a price level to be cleared before proceeding, IEX would be able to route to the next price level immediately after their quote updated, while competitors would have to wait until they saw the IEX quote change. Considering the speed of today's markets, this could be a very significant advantage.

In my opinion, the only reasonable solution is to force IEX to put the exact same 350 microsecond delay when orders are sent to their router from their matching engine. That would eliminate the advantage and be a far fairer outcome.

The other part of the debate over the IEX application is, in my opinion, much less contentious. The question has been raised if any delay should be allowed as part of an approved national stock exchange. Many commenters have argued that Regulation NMS directly prohibits such a delay and that the SEC has rejected such ideas in the past. While I am extremely skeptical about the actual benefits of the IEX speed bump to investors, I do not see it as particularly problematic for market structure. The SEC would probably need to change the rules to allow it, but such a change would be consistent with the intent of Regulation NMS.

I have always believed that the reason for only protecting "fast" quotes was to prevent the NYSE, which had 80% market share at the time, from ignoring other markets and giving their specialists too much trading discretion. At the time, the NYSE "electronic" trading system, called DOT, did not automatically execute orders without specialist intervention. This resulted in a lot of criticism from traders, who would accuse specialists of backing away and also of

leaving executable limit orders unexecuted. To put this in perspective, a common joke at the time was that the best way to get a limit order executed on the NYSE, was to try and cancel it…

As a result, while the objection to the IEX delay is probably technically correct, it could be solved by a clarification to the rules around the definition of slow quotes. IEX provides no discretion for participants to cancel quotes, as all orders on their system are executable. As a result, they should be deemed accessible and firm. Essentially, it's hard to argue that anyone participating in IEX is "hurt" by having such a small interval of delay, if *every* user of the system experienced the same performance. Of course, this debate about the value of their "speed bump" would be much more interesting if there were better metrics on execution quality available.

This chapter of the IEX story leads to some obvious conclusions. They, along with every other "for profit" market, advocate for rules that provide advantage to their own bottom line. Therefore, instead of viewing IEX as a disruptive competitor aimed at stopping the oligopoly of exchanges and brokers from disadvantaging investors, it is time to consider them as part of the club. As such, it is vital that the SEC forces them to adhere to the same rules as all other exchanges. My suggestion would be to require them to change their rules to subject all orders sent to their router to the speed bump. Further, the SEC should change the rules to allow other exchanges to implement a delay if they want to. This could be accomplished either by a change to Regulation NMS or a blanket "no action" letter that would allow a sub-millisecond delay, as long as it was applied to any and all participants including the affiliated routing broker of the exchange. This is the only way to actually meet the principles of fairness and transparency that IEX claims to represent.

[1]IEX has enhanced disclosures of routing and trading data, but does not publically display quality statistics beyond

rule 605, which does not show any particular improvement for marketable orders and far lower execution rates for "at limit" orders (0.2% vs average of exchanges of 2.7%).

[2]The first time I ever heard the idea of distinguishing between slow and fast quotes was at a meeting between the board of the Boston Option Exchange and the SEC Division of Trading and Markets. At the end of that meeting, Thomas Petterfy, the CEO of Interactive Brokers, floated an idea. His proposal was that traders should be required to route to the best price available, but only if they were "electronically accessible". His definition of that term was quotes that were firm and would automatically be executed when an electronic order sent to the venue.

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