KOR GroupLLC

December 12, 2014

Market Regulation Branch
Ontario Securities Commission
20 Queen St. West, 22nd Floor
Toronto, Ontario
M5H 3S8
By e-mail: marketregulation@osc.gov.on.ca

Re: **Alpha Exchange Inc. Notice of Proposed Rule Amendments and Request for Comments**

To whom it may concern:

On behalf of KOR Group[1] ("KOR"), I am happy to respond to the above noted request for comment. KOR Group welcomes the opportunity to provide comment on these proposed rule amendments.

I am a Market Structure and Technology Architecture Consultant with experience helping to design and build the infrastructure that underpins many modern electronic trading systems as well as several years' experience as a quantitative analyst and trader on high-frequency trading desks. This experience included time spent studying Canadian market structure and designing / running trading strategies in Canada. My current work focuses both on highly scalable technology architecture design, building innovative analytics solutions to study and understand complex technology systems and helping organizations understand and navigate modern equity markets[2].

[1] KOR Group LLC, www.kortrading.com is a market structure research, analysis and consulting firm that works with a diverse range of industry participants.

[2] Dave Lauer has also testified before the U.S. Senate Banking Committee, the U.S. Securities & Exchange Commission and the U.S. Commodity Trading Futures Commission on technology, complex systems and market structure. See:
U.S. Senate Testimony:
http://www.banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=220da02a-8dd6-4976-8172-b00e1d2ac120
CFTC Testimony: http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/tac060314_korgroup.pdf
SEC Testimony: http://www.sec.gov/comments/4-652/4652-32.pdf

The Latency "Speed Bump"

In a previous comment letter[3] regarding the Aequitas latency "speed bump" KOR made a simple argument: the application of a latency speed bump uniformly, across all traders, would be most preferable. Intuitively, that seemed to make the most sense, however we still supported the Aequitas innovation on that idea to apply it only to those traders deemed sensitive to latency at the microsecond and millisecond scale. Once again, intuitively that makes sense as well – if those traders have an inherent, structural advantage over others, and Aequitas's goal is to create a more balanced market, this appeared to be a reasonable method to accomplish that. The other compelling argument in favor of the Aequitas "speed bump" is that if it succeeded or failed, it would generally only impact Aequitas, with minimal impacts on the broader market.

It is our opinion that the TMX Alpha proposal, as it stands, does not share these qualities. Alpha's proposal appears to be nearly the exact opposite of the Aequitas proposal. Broadly speaking, it is only "Latency Sensitive Traders" (high-speed market makers) that would make use of Post Only order types. At the very least, they would be the only group that would be affected by applying the "speed bump" uniformly across all orders.

As such, and especially within the context of the OPR, if these market makers are maintaining standing limit orders across the entire market, the latency "speed bump" on Alpha would give them either a "sneak peak" at incoming orders or a "free option" from other venues to withdrawal liquidity on Alpha. Consider the following two scenarios where a broker receives an institutional order that can only be satisfied by hitting resting liquidity across multiple market centers:

1. Sneak Peak: The broker routes to TMX Alpha first, and waits for fills to come back before routing to other venues. While this would guarantee they would receive the liquidity offered on TMX Alpha, the market maker on Alpha would be able to pull any other resting liquidity on other market centers before the remainder of the institutional order could be filled. The institution is forced to execute at inferior prices.
2. Free Option: The broker routes simultaneously to all venues. In this case, the market maker resting liquidity at both TMX Alpha and other venues is given a multi-millisecond time window (an eternity to high-speed market makers that operate on microsecond-scale tolerances) to decide whether or not they want to honor the liquidity they've posted on TMX Alpha, and have the free option to withdrawal that liquidity.

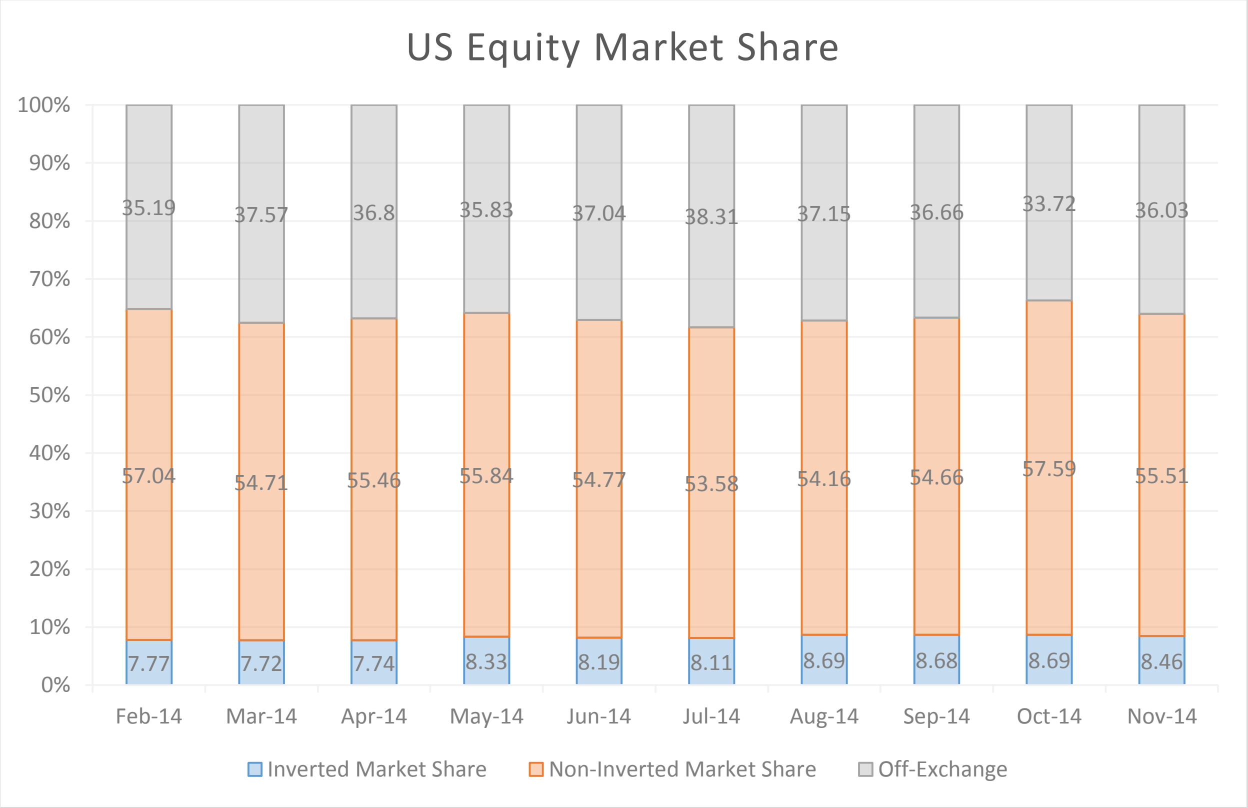
It is our opinion that the TMX Alpha changes proposed here would exacerbate the problems that they profess to be addressing. KOR Group urges caution in considering this proposal, as the unintended consequences must be well understood. It is also impossible to judge whether the minimum size requirements of the Post Only order type would be sufficient to ensure the benefits outweigh the apparent problems, as TMX Alpha has not made clear what those size requirements are. Were the minimum size requirements to be of sufficiently large size, it may counter-balance these issues. The problem of fleeting liquidity is not a simple or straightforward issue, and this solution appears to give an advantage to one participant (the high-speed market maker) rather than the institutional or retail investor. If this is the TMX Alpha's intent, then it should be clearly stated.

[3] http://www.osc.gov.on.ca/documents/en/Marketplaces/com_20140903_kor-group.pdf

Inverted Maker/Taker Pricing

The other primary purpose of the TMX Alpha filing is to adopt an inverted maker/taker pricing model, ostensibly to help combat the migration of retail flow to the United States in Payment For Order Flow (PFOF) arrangements that are not allowed in Canada. While KOR has no problem with the inverted structure prima facie, KOR has long argued that Maker/Taker pricing is a mistake in general, and that these order routing inducements act as perverse distortions that introduce a principal-agent conflict in broker routing practices. KOR sees no reason why an inverted maker/taker venue would be any different in this regard.

The United States has experience with inverted venues. Because of the prisoner's dilemma that non-inverted venues create, despite execution quality being far superior on inverted venues, most brokers do not route order to them. These venues remain stagnant in the US, with 8.46% of US market share last month, little changed from the 7.77% of market share that we first measured in February 2014[4]:



Furthermore, despite academic studies[5] in the US that clearly demonstrate that inverted markets have superior execution quality to non-inverted markets, and very public revelations during the recent hearing by the US Senate's Permanent Subcommittee on Investigations[6],

[4] Source: KOR Group monthly Market Structure Insights reports: http://kortrading.com/market-structure-insights/

[5] Battalio, Robert H. and Corwin, Shane A. and Jennings, Robert H., Can Brokers Have It All? On the Relation between Make Take Fees & Limit Order Execution Quality (March 5, 2014). Available at SSRN: http://ssrn.com/abstract=2367462

[6] Conflicts of Interest, Investor Loss of Confidence, and High Speed Trading in U.S. Stock Markets, Permanent Subcommittee on Investigations, June 17, 2014, replay available at: http://www.hsgac.senate.gov/subcommittees/investigations/hearings/conflicts-of-interest-investor-loss-of-confidence-and-high-speed-trading-in-us-stock-markets

retail brokers refuse to route any significant marketable order flow to inverted exchanges. Thus the market share on the inverted venues does not represent retail order flow, as retail brokers earn much more by sending marketable order flow to internalizers. If PFOF is an option, retail brokers clearly do not act in their clients' best interests for order execution quality, and instead route to maximize rebates and payments.

It is KOR's contention that if regulators believe there is a problem with US-based PFOF arrangements, an inverted maker/taker venue will do little-to-nothing to address this problem. Instead, regulators must take a much more aggressive stance towards any order flow arrangements that contravene regulatory intent and engage in regulatory arbitrage with more lax US rules.

Thank you for consideration of KOR's comments and we would be happy to follow-up on any of these ideas by email, phone or in-person.

Respectfully submitted,

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