



September 3, 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: OSC Notice and request for comments regarding the application for recognition of Aequitas Innovations Inc. and Aequitas Neo Exchange Inc. as an exchange

To whom it may concern:

On behalf of KOR Group¹ "KOR", I am happy to respond to the OSC's request for comments regarding the new exchange proposed by Aequitas Innovations Inc. and Aequitas Neo Exchange Inc. Aequitas has made a bold proposal to introduce a fundamentally different venue for trading equities in Canada, and I applaud the OSC in its approach to the important questions that this proposal has raised.

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 markets².

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 following are my thoughts regarding the specific questions raised by the OSC.

Questions 1 and 2 are both addressed to the designated market making program that Aequitas has designed. Before addressing the specific concerns raised by the OSC, it is worth taking a step back to acknowledge the shortcomings of market making obligations in this new electronic age of capital markets. While there is little to reminisce over the floor broker, their affirmative market making obligations appear to have provided some level of stabilization during stressful market conditions. With the dominance of electronic liquidity providers and weakness of most market making and designated market making programs, the market has lost this stabilization mechanism. The innovative approach of Aequitas is to be commended in its attempt to rethink both obligations and benefits.

KOR has long argued for much stronger standards for market makers, and continues to do so. In many other industries, technology improvements are held to a far higher standard than in financial services. In the telecommunications industry for example, 99.999% uptime is expected, not just for hardware and switching equipment but for the software that handles call routing and that even gives you a dial tone when you pick up your phone. That dial tone can be thought of as analogous to market makers in equity markets. As such, when you go to trade, there should be a counterparty there 99.999% of the time, and market making obligations should reflect that. We urge regulators and the industry to strive towards such a goal.

Question 1: Benefits and obligations of market makers: *Is it appropriate to have obligations with respect to the Dark Book and dark pools generally and is it appropriate to have benefits in the Dark Book but no obligations?*

In order to determine whether it is “appropriate to have obligations with respect to dark pools generally”, we must ask ourselves what do regulators and venues hope to accomplish with market making obligations? Market making obligations seek to compel firms to provide a service - liquidity provisioning during standard market conditions in order to improve market efficiency and quality, along with liquidity provisioning during tumultuous market conditions to support price discovery and prevent catastrophic market dislocations.

From this perspective, offering benefits in a Dark Book for the satisfaction of obligations in the Lit and Neo books makes sense - it serves as further incentive to provide these critical services. Further, imposing quoting obligations for venues in which quotes are never disseminated does little to further the goals of market efficiency, price discovery or preventing price dislocations. Trades in dark markets cannot occur outside of the NBBO and therefore it is the lit market that supports price discovery in dark pools. This issue strikes us as rather non-controversial, considering the arguments above.

Question 2: Market makers' commitment (MMC): *Does the MMC feature provide too great an incentive to the market maker at the expense of the existing orders in the book?*

The Aequitas market making commitment provides for a pro-rata allocation of 15% of an incoming order for market makers that satisfy their commitments to provide liquidity at multiple price levels. While Aequitas believes that such a commitment could potentially help to mitigate the effects of a future Flash Crash, this line of reasoning is questionable. Nevertheless, it should be clear that having a commitment to provide significant quoted depth at multiple price levels is a huge service to the market, and that only firms who are compensated for the risk they are taking on will provide such a service.

For this question, the OSC appears focused on the 15% allocation metric and is attempting to determine the fairness of this benefit and whether it will crowd out other liquidity providers. It is nearly impossible to say whether or not this metric is set to the right level, what the proper level of compensation should be, and whether the effect will be a net benefit or not. If it does crowd out the quote, then Aequitas will struggle to attract non-DMM liquidity and will be incentivized to modify it until they are able to find the appropriate balance between benefits to DMMs and incentives to ELPs and other participants.

One analogous benefit can be found in US markets in a recent revision to the Nasdaq OMX PHLX matching engine algorithm, where they made foundational changes to how their matching and allocation algorithms function, and subsequently received SEC approval³. In part these changes establish a new pro-rata allocation mechanism for some symbols, which allocate 40% of an incoming contra-side order to a liquidity provider if they establish a new price level on the PHLX order book. Another analogous situation is in the US Options market, where market makers receive a 40% pro-rata allocation on trades they would like to internalize if they are at the inside quote, with the remainder determined in an on-exchange auction (which has the potential for price improvement). While these are not perfect examples, they demonstrate that even the SEC is open to substantial pro-rata volume incentives to entice market making activity.

This type of experimentation in incentives strikes KOR as healthy for Canadian markets with properly aligned incentives for Aequitas if there is not a net benefit. The OSC should approve this program while urging Aequitas to continually monitor market quality and associated quoted depth. Aequitas should always be open to modifying compensation levels for the market making commitment incentives to find the appropriate equilibrium.

Question 3: Application of OPR to the Neo Book: *Is it appropriate to require LSTs to route orders to a marketplace that that does not treat their orders in the same manner as all others? Is it appropriate for a market to be protected where it systematically treats one class of participant differently than another?*

The idea of latency randomization has been discussed for several years now as networking and computer performance has driven latencies into microsecond timescales. The Foreign Exchange market was the first asset class to implement a random speed bump with ParFX implementing a random 20 - 80 millisecond speed bump for all incoming orders and EBS following suit with a "latency floor" of up to 3 milliseconds. Thomson Reuters is said to be considering a similar model. FX trading is primarily driven by the inter-dealer bank market seeking liquidity for substantial trade sizes, and is itself contending with an influx of high-frequency trading.

Latency-Sensitive Traders, as Aequitas describes them, are focused on minimization of latency for many different reasons. As a former high-frequency trader who traded both inter-listed arbitrage of Canadian and US securities, and event-based strategies for US and Canadian auctions, my focus on latency was simple - our trading strategies could not compete unless they were faster than our competitors. For inter-listed arbitrage, it was critical to be able to quickly access offsetting liquidity in the corresponding market - this ability had a direct influence on the spreads that the trading strategy was able to maintain.

³ See Release No. 34-72250; <http://www.sec.gov/rules/sro/phlx/2014/34-72250.pdf>

However, there are other trading strategies that have been described as “predatory” that Aequitas is attempting to address. IEX has provided the first model in the US of an alternative equities exchange design with a “speed bump” and cutting-edge technology support for NBBO calculation to ensure many of these trading strategies are curtailed.

A similar idea to Aequitas’s was [recently suggested](#) by Thomas Peterffy, the Chairman of Interactive Brokers, who proposed that US markets implement a random delay between 10 – 200 milliseconds for any liquidity-taking order⁴. He argues, in agreement with Aequitas, that:

“Slowing down liquidity-removing orders for a minimum of 10 milliseconds would reduce the occurrence of price spikes, “mini-crashes” and runaway markets”

The FX and IEX examples along with the Peterffy proposal all share a similar implementation - they apply their latency delay equally to all participants. The OSC specifically asks whether a market should be protected that “systematically treats one class of participant differently than another?”

In this regard, the Aequitas proposal is intriguing, and KOR broadly favors allowing interesting and innovative solutions to compete on a level playing ground to see how the market reacts. It would appear that there are three options here for the OSC:

1. Allow the OPR to apply to the Neo Book in its proposed state;
2. Require that Aequitas eliminate the latency “speed bump” for OPR protection; or
3. Require that Aequitas apply the latency “speed bump” equally, to all aggressive orders.

In the interests of fair and equitable treatment of all participants, option three would be the most intuitively satisfying and would be our preference. Non-latency sensitive traders and investors would not even notice the 3 - 9 millisecond delay imposed on aggressive orders, and applying the delay evenly across participants would mitigate the concern about systematically treating a class of participants differently.

That being said, we would certainly support the OSC in allowing OPR to apply to the Neo Book in its proposed form and believe that to be a much better option than requiring that Aequitas eliminate the speed bump entirely. The Aequitas argument for applying this speed bump to LSTs is compelling, in its vision of creating a level playing field, and potentially eliminating one of the primary motivations for the increasingly destabilizing “latency race to zero”.

Latency randomization deserves a chance in equities markets, and Aequitas provides an excellent opportunity to test this idea. If it does indeed produce wider spreads due to disadvantaging of LSTs, it is Aequitas that will suffer, not the market-at-large. It is unclear whether the speed bump will actually serve to address the concerns of Aequitas, Peterffy and IEX. If Aequitas cannot achieve its goal, and is unable to attract enough market making liquidity it will fail on its own merits.

Question 4: Application of OPR to new marketplaces: *Staff would like to solicit feedback on whether to interpret and apply OPR such that it does not apply to any new*

⁴ See May 8, 2014 Letter from Thomas Peterffy to Stephen Luparello;
https://www.interactivebrokers.com/download/SEC_proposal_high_frequency_trading.pdf

marketplace that launches in the time period between the publication for comment and implementation of the Proposed Amendments. Further, staff request comments on specific benefits to the market or costs and complexities that this approach would introduce.

This question strikes us as the simplest to respond to. While we fully support reexamination of the OPR and a market share threshold to qualify for protection (much the same as KOR has argued in the US for changes to Regulation NMS), it would seem presumptive and premature to apply non-approved regulatory changes to Aequitas. The current set of rules and regulations are applied to the markets that Aequitas must compete with - they must be allowed to compete within the same framework or they will be setup to fail before they accept their first order. Further, to presume the results of a rule change that will take months and most likely go through several iterations during what will prove to be an intense and contentious comment and debate period does not make sense.

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,

A handwritten signature in blue ink, appearing to read "D. Lauer".

David Lauer
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