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Securities and Exchange Commission  
100 F St. NW  
Washington, DC 20549-9303  
[Rule-comments@sec.gov](mailto:Rule-comments@sec.gov)

Files: SR- NASDAQ-2012-059

Re: Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Change to Establish “Benchmark Orders” under NASDAQ Rule 4751(f)

Dear Securities and Exchange Commission:

Here are my comments regarding this matter:

### **Background**

Brokerage firms routinely offer their clients the ability to place orders designed to match the Volume Weighted Average Price (VWAP), Time Weighted Average Price (TWAP), and Percentage of Volume (POV) orders. These order types are very useful to institutional investors attempting to minimize their execution costs. They typically involve using computer software to break up large orders into smaller

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<sup>1</sup> I am also on the boards of directors of the EDGA and EDGX stock exchanges. My comments are strictly my own and don't necessarily represent those of Georgetown University, the University of Pennsylvania, EDGX, EDGA, or anyone else for that matter.

pieces that are executed gradually over time to achieve the desired result. Nasdaq wants to do the same, and they are proposing to use a third party as the application provider to create the smaller orders, which would then be executed via the Nasdaq system. This is yet another example of the blurring borders between exchanges and broker dealers. Broker dealers routinely provide functions that exchanges provide, such as matching trades, and exchanges now route orders to other exchanges as well. There is nothing inherently wrong with such competition.

This proposal has been published for public comment and **no comment letters were received**. Despite this lack of any public opposition, the SEC staff used its delegated authority to institute denial determination proceedings. The staff raised two basic objections: First, they expressed concern over Nasdaq's ability to maintain adequate risk controls over the system provided by an outside application provider. Second, they expressed concern over whether the orders generated by the system would have an advantage over other participants.

**Technology stability issues should be dealt with on a firm- and market-wide basis, not here.**

It is indeed appropriate that the Commission consider the technical stability of platforms and the potential for misfiring algos. Indeed, I have warned the Commission in writing numerous times about such risks.<sup>2</sup>

Nasdaq proposes to use technology provided by an outside vendor. This is a typical make-versus-buy analysis that financial firms do all the time. Firms often use software developed by outside entities. For example, firms don't write their own computer operating systems but use commercially available systems such as Windows or Linux. The order types contemplated here (VWAP, TWAP, and POV) are widely offered by many brokerage firms and represent a relatively mature and reliable technology. **From my technology background as a former engineer, I can attest that it is less technologically risky for Nasdaq to use proven technology from an outside vendor than for them to try to build it from scratch.** The use of an outside vendor to provide this functionality is not a bug, it's a feature. And a good one.

In this post-Facebomb world, all market participants are well aware of the need for adequate risk controls and the immediate and painful economic penalties inflicted when a glitch occurs. As part of their remediation efforts, Nasdaq has announced that they are bringing in outside vendors to assist in enhancing the robustness of their platform. Nasdaq's assurances in their proposal that they will have adequate risk controls are quite credible.

Issues of the technological and economic stability of our markets are far larger than the order types in this particular subsystem. Such issues should be dealt with on a firm-wide and market-wide basis and not bogged down in the minutiae of rule filings like this one.

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<sup>2</sup> A list of my written warnings to the SEC prior to the Flash Crash can be seen in my Senate testimony of December 8, 2010. [http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=a4f49d29-fe78-4ed9-a839-3a6c09917298](http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=a4f49d29-fe78-4ed9-a839-3a6c09917298)

### **The lack of opposition shows that fairness of competition is not an issue.**

As I pointed out in a previous comment letter, market participants do not hesitate to complain vehemently when an SRO proposes to do something that they feel is unfair, usually something that threatens their economic interest.<sup>3</sup> The lobbyists line up to tell their case to anyone who will listen. Law firms grind out comment letters arguing that the world (or at least their customer's world) will end if certain actions are approved. **The lack of any publicly expressed opposition is a strong sign that nobody feels that this proposal is unfair to them.** The staff does not need to squander scarce SEC resources digging further for unfairness.

All Nasdaq is proposing is to offer some industry-standard order types, just like many other market participants. They represent in their filing that the child orders generated in the system will be treated no differently than other orders entered into their system by other market participants. There could be some extremely small time advantage from the proximity of the application to the order entry gateway of the matching engine, but the few nanoseconds gained by being a few feet closer than some other co-located application are unlikely to be a major advantage for VWAP, TWAP, and POV orders.<sup>4</sup> My understanding is that nanoscale speed is less critical here than it is for market-making and stat arb algos where every microsecond matters.

Indeed, one of the reasons that there has been so little opposition to this plan is that the close association with Nasdaq is actually likely to be a serious commercial disadvantage. In today's cutthroat competitive market, no exchange has more than one fourth of the market. VWAP and other algos need to access liquidity on all platforms, many of which are located in different data centers many miles and many thousands of nanoseconds away. An algo that is too Nasdaq centric because it is located in Nasdaq's data center is at a locational disadvantage to the other markets. Thus, there is likely to be no net locational advantage from the close proximity to Nasdaq's servers.

Indeed, the fact that the child orders will usually go to Nasdaq first before routing to other data centers will put them at a time disadvantage to other algos that can skip going to Nasdaq first. This will give the vendors of competing algos the ability to trumpet that their algos are exchange neutral and therefore likely to perform better without the Nasdaq bias. Furthermore, if competing algo providers feel that there is something unfair about the way Nasdaq's algos perform, they can respond by sending their business to exchanges other than Nasdaq whenever there is a choice – which there often is.

### **This proceeding is a misallocation of scarce SEC resources.**

This proceeding is an inefficient waste of SEC resources. At a time when the SEC is seriously underfunded, it should not be wasting what resources it has in this inefficient manner. The serious issues

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<sup>3</sup> See <http://sec.gov/comments/sr-nyse-2011-56/nyse201156-5.pdf>

<sup>4</sup> Light travels approximately one foot per nanosecond. Exchanges these days react in about

regarding the technical stability of our market infrastructure should be dealt with directly by people with experience in technology and experience in trading, not lawyers. The complete and total lack of expressed written opposition thus far indicates that the SEC should devote its resources in more productive areas.

This proceeding is an example of the SEC staff fiddling while our capital markets burn. Congress recently passed the JOBS Act in order to improve access to capital for smaller emerging growth firms. The SEC is missing its congressionally mandated deadlines on JOBS Act rulemakings as well as many Dodd-Frank rulemakings.

Getting our capital markets moving again is a far better use of SEC resources than micromanaging exchange attempts like this one to add industry-standard order types. The staff time wasted on this useless proceeding should be used to get the JOBS Act rules done quickly and correctly. I have stated and continue to state that the SEC is underfunded and should receive additional funding so that it can hire more good people with the technology and markets experience needed to do its job properly. However, the egregious waste of resources in proceedings like this seriously damages the credibility of the Commission.

If you have any questions, feel free to email or call me.

Respectfully submitted,

James J. Angel, Ph.D., CFA