“Examining the Efficiency, Stability, and Integrity of the U.S. Capital Markets”

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INTRODUCTION

My name is Manoj Narang, and I'm the CEO of Tradeworx Inc, a financial technology firm that provides hardware and software solutions to investors interested in ultra-high-performance trading. In addition to supporting outside clients with our technology, we operate a proprietary trading practice which utilizes the same technology to engage in high-frequency trading strategies. We also manage money in lower-turnover quantitative strategies for outside investors. All of our strategies involve technology-driven trading based on statistical arbitrage.

I'd like to begin by expressing my gratitude for the opportunity to share my insights and perspectives in today's hearing, and by recognizing that small firms like Tradeworx are not often accorded such an opportunity.

RESTORING INVESTOR CONFIDENCE IN THE MARKETS

My prepared remarks focus on the topic of restoring investor confidence in our markets. It is self-evident that markets depend on confidence in order to function smoothly, and there is no denying that the confidence of investors was severely shaken on May 6. It is this loss of confidence that transformed the Flash Crash from just another chapter of the ongoing credit crisis into the far-reaching referendum on market structure that it has become. Ever since May 6, investors have been plagued by the nagging suspicion that the regulatory authorities are unable to understand the inner workings of the market, or to meaningfully assess the practices of its most active participants.

For the past two years, the public has been treated to endless debate about market structure issues. Are prices posted by market-makers fair, or are they subject to widespread manipulation? What impact do rebates or elevated cancellation rates have on liquidity? Why is speed important to the business of market-making? How do the equities, options, and futures markets influence and interact with each other?

The public should not be forced to accept anecdotal or speculative answers to such questions when definitive answers can be had by analyzing data. Firms such as Tradeworx have the ability to produce objective and factual answers to questions of this sort with only minutes of effort. While we have shared our insights with the SEC, there is no substitute for the regulators having these sorts of capabilities on their own.

REGULATION NMS

Another key obstacle to restoring the confidence of investors is that the markets have become too complicated for ordinary investors to understand. The US Equity Market sports the most complex and fragmented market structure known to mankind. The regulators deserve their share of the blame: their magnum opus -- Regulation NMS -- was ten years in the making and spans over 520 pages. For perspective, consider that in competitive games like chess, extraordinary complexity arises from just a handful of rules. It should surprise nobody that an undertaking of this magnitude would overreach and backfire. Nor should it surprise anyone that the byzantine structure it foisted upon the market would generate paranoia among investors, fueling the perception that the system is somehow "rigged" against them.

Remarkably, the most complex and problematic part of the regulation adds almost no value to the market in practice. I'm referring to Rule 611, which is designed to keep prices at the different exchanges synchronized with each other. Consider that the stocks SPY and IVV, both of which track the S&P 500 index, have a 99.9% correlation with each other when their prices are sampled at sub-second intervals, despite the fact that there is no regulation to keep their prices in sync. This is compelling evidence that arbitrage alone is more than sufficient to keep prices in line with each other.

Unfortunately, 99.9% was not good enough for policy makers. With Reg NMS, the SEC decided to keep prices in line by decree, rather than by the traditional mechanism, arbitrage. Never mind that the underlying idea violates the laws of physics -- exchanges can never perfectly incorporate each other's information, because information takes time to transmit.

The market continues to pay a steep price for this overreach. Rather than minimizing fragmentation, which was its stated objective, the regulation has directly encouraged it, giving upstart exchanges an economic incentive they never before enjoyed by virtually guaranteeing that they will get orders routed to them by other exchanges. Rather than limiting the role of arbitrage, the regulation has diverted its focus from keeping prices in check to exploiting the shortcomings of the regulation itself, often to the detriment of long-term investors. To top it off, the rule has managed to ignite a massive technology arms race, by making the speed of information transmission a more critical issue than it ever was previously.

Now that the regulators clearly have the mandate to create even more rules, I fear we are doomed to repeat our past mistakes. Once again, superfluous proposals which solve non-existent problems abound. It is easy to conjure up gimmicks such as "speed limits" on order cancellations, but it is also trivially easy to demonstrate how they will backfire and harm long-term investors. When lawyers with minimal trading expertise devise such rules, they should recognize that world-class engineers with a profit motive will be there to exploit them. Who do you think will wind up with the upper hand?

Adding ever-more expansive regulations to a system which is already hopelessly complex is guaranteed to backfire by inviting unintended consequences. This will not restore investor confidence in our markets. Fixing flaws in the existing regulations will.

There is plenty of low-hanging fruit to be picked here, starting with the provision of Rule 611 which prohibits exchanges from posting orders which lock the quotes of other exchanges. Of all the provisions of Reg NMS, this is the most utterly useless, the most exploitable, and the most flagrantly damaging.

Were this one superfluous provision to be relaxed, trading venues would cease their unabated proliferation, and fragmentation would likely begin a steady reversal. Volumes would start migrating back from dark pools to the lit exchanges. Message traffic and excessive order cancellations would decline. Proprietary traders would cease to have the ability to jump in front of investor orders. The wind would be taken out of the sails of the high-tech arms race. All of this could be accomplished while leaving the vast majority of Reg NMS intact and without altering the framework of the national market system in a meaningful way.

I hope to have the opportunity to elaborate on these topics at today's hearing, and I ask that the entirety of my written remarks be included in the record.