ModernIR
Market Structure Analytics™

12/8/2014

Kevin M. O'Neill
Deputy Secretary
Securities and Exchange Commission
100 F Street NE
Washington DC 20549
VIA EMAIL

RE: Notice of Filing of Proposed National Market System Plan to Implement a Tick Size Pilot Program on a One-Year Pilot Basis; File No. 4-657

Dear Mr. O'Neill,

ModernIR appreciates the opportunity to offer remarks on the proposed tick-size study for small-capitalization stocks submitted by equity-market Self-Regulatory Organizations. ModernIR is a financial technology firm and the leader in mathematical market intelligence on trading behaviors for publicly traded companies, with a client-base exceeding $1.5 trillion of market-capitalization.

There is no question that process has displaced purpose in US equities at the expense of small-caps. Thirty broker-dealers drive 90% of market volume, and that volume and about 90% of market-capitalization is concentrated in roughly 750 large-cap stocks. About 10% of market-capitalization is spread over the remaining 3,000-odd issuers comprising the 3,750 companies in the National Market System.

Wilshire Associates notes in describing characteristics of the total-market Wilshire 5000 Index[1] that what it defines as small-capitalization stocks represent about 1,750 issues[2] and about 9.6% of total market-capitalization, currently approximating $25 trillion[3]. For perspective, the weighted average market-capitalization of the Wilshire 5000 is $119 billion; mean market value is $5.4 billion; median, $525 million. These data illustrate the dramatic concentration occurring in US equities.

Yet issuers are barely mentioned in the proposed pilot. We were able to identify but a handful of instances of the words "company" or "issuer," and two referenced terms and definitions. The closest the program comes to acknowledging issuers is in the "General Questions" section regarding a possible opt-out provision: *"Should companies whose securities are included in the Pilot be allowed to opt-out of participating in the Pilot? If so,*

[1] Copyright © 2014, Wilshire Associates Inc. Characteristics of the Wilshire 5000 referenced here: http://web.wilshire.com/Indexes/Broad/Wilshire5000/Characteristics.html
[2] The remaining roughly 2,000 issues are what Wilshire would describe as micro-caps; Wilshire data indicates the smallest issue in the index has market-capitalization of less than $1 million.
[3] As of Nov 28, 2014.

how should such an opt-out work and what impact would it have on the ability of the Commission and others to analyze the Pilot?"

In other words, "We could ask for volunteers but what might that do to our test?"

What's more, few comprehend the sweeping size of this test. It proposes to include roughly 1,600 small-caps matching criteria articulated by its creators. Wilshire, as we noted above, identifies only 1,750 small-caps in total! That means this program is in effect a complete transformation of trading in small-caps, and by extension a repudiation of Regulation National Market System for that segment of the market. It bifurcates the NMS into two tiers. Ironically, until Reg NMS, the market was always two-tiered, the floor and the upstairs desk.

I don't mean to criticize the plan because it's a monolithic undertaking. The length of the section suggesting questions and considerations reflects desire from SROs to gather feedback. But the Securities Act specifically and explicitly prohibits rule-making that discriminates against any exchange constituency including, by name, issuers[4]. At minimum, any tick-size study should include **an issuer committee** that can:

- Evaluate the structure of the plan and gather peer-feedback on inclusion or exclusion;
- Formulate and possess the authority to insist on a sort of "kill switch" if the pilot may be materially damaging the interests of certain issuers and their shareholders;
- Identify evaluation criteria that matter to issuers (the current proposal's criteria may suit intermediaries but have no clear meaning to issuers) and establish periodic success benchmarks;
- Participate in the final evaluation of pilot-program outcomes and communicate findings to the issuer community.

Expanding on the final two points here, success measures in the current pilot are in an abstruse 35-point appendix on "market quality." Outcomes should be measured in a fashion that won't just benefit those construing the study, or conversely, permit pilot sponsors to abandon the effort. For small-cap issuers, the success of the pilot would best be measured through capital-formation criteria: increasing numbers of committed market-makers carrying share-inventory and providing research coverage to small-caps; more market participants serving customers; stronger secondary-market support evidenced by larger trade-sizes and deeper displayed buy-sell interest.

Illustratively, the Buttonwood Agreement in 1792 involved an initial set of 24 brokers, a group that expanded as the marketplace did. By contrast, our data indicate that the average number of market participants for a given issuer has declined 30% since 2007 when Regulation National Market System was implemented.[5]

We agree with the premise behind wider ticks. Broader spreads in prices for anything, not just equities, discourage arbitrage by increasing its risk, and encourage committed market-making and longer holding periods. The geometric construction of the market under prevailing rules is the loudest clanging claxon about the fault in slim spreads. Trading is concentrated in highly liquid issues comprising the core of the

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[4] 15 U.S. Code, Section 78f(a)(5)

[5] Qualitative data compiled by ModernIR. Comparisons of ranks of market-participants executing trades in small-cap, mid-cap and large-cap stocks have all declined from 2007-present but declines are more pronounced for mid-cap and small-cap issues.

indexes and ETFs dominating market volumes and institutional asset-allocation today. Quoting is intensive in these issues not simply due to demand, however, but because intermediary profits in low-spread markets derive not from demand but from the number of prices.

In fact, there's a comment letter alongside ours on this pilot program from Richard Gorelick of RGM Advisors[6] advocating sub-penny ticks in liquid securities and arguing that spreads are bumping into a forced penny-spread limit. Without offense to Mr. Gorelick, this mindset is contrary to issuer interests. The narrower the spread, the more often the price will change. Imagine reaching for a loaf of bread in the grocery store and seeing the price morph ten times before your hand touched it. Soon suppliers would sell it by the slice to minimize price-volatility risk. Bread buyers don't want a slice, they want a loaf. The same principle applies to committed investors. Low spreads are antithetical to value-creation and instead power arbitrage, which thrives in environments where prices relentlessly change.

Put more simply, if prices change often, that's volatility. For instance, NYSE symbol KO averaged 57,000 daily trades over the 50-day period ended December 2.[7] Over that period, intraday volatility, which we consider the spread between the highest and lowest intraday prices, was 1.4%. Tallied across 20 trading days, this amounts to 25% of the value of KO shares. That's a huge sum. If KO trades 57,000 times daily, with trades meeting between the best national bid to buy and offer to sell, we can impute 570,000 different prices, in theory, over a 20-day period. That's not a stable market, it's a seismograph.

This outcome in turn is a product of market structure. Brokers no longer carry inventory, evidenced by the fact that 42%[8] of all market volume in the 20 trading days ended Dec 1 was short instead of long. Proprietary traders arbitraging price-change as liquidity providers (and two-sided market-makers too) are borrowing inventory instead of carrying it. If value-at-risk is a function of borrowing costs, or the acquisition cost of 100 (or much less even) shares 500 milliseconds ago, your aim as an intermediary is the narrowest possible spread – even below the tenth-penny level. The narrower the spread, the lower the risk for automated market-makers with no customer orders and no inventory.

This model throttles capital-formation opportunity for small-caps, and for issuers generally without regard to market-capitalization, because it discourages value-added market-making supported by research and committed investment, and it means that real investors are rarely the price-setters. By our measures, rational investors focused on fundamentals rarely set price more than one day out of 20.[9]

If the objective of the pilot program is to discourage arbitrage and encourage capital-formation, the optimal approach in the pilot program would be to include a group of securities for which brokers choose their own spreads. At the Sandler O'Neil Global Exchange and Brokerage Conference on June 5, 2014, SEC Chair Mary Jo White said, "The secondary markets exist for investors and public companies, and their interests must be paramount." Their interests aren't even considered under the current plan crafted by exchanges – which today have no underlying books of business and no members.

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[6] http://www.sec.gov/comments/4-657/4657-44.pdf

[7] Data compiled by ModernIR.

[8] Data compiled by ModernIR using Finra and other sources that tracks short versus long volumes across the client base as a proxy for marketwide short volume.

[9] ModernIR employs a mathematical measure called "Rational Price" to statistically quantify price-setting by rational investment behavior. One new Rational Price per month – one day out of 20 – for a given issuer is a positive indication for that issuer's market health.

Who better to calculate market-making risk and opportunity than the brokers serving customers (investors), with clear feedback and awareness from the issuers comprising the test group? The benefit of this approach is that it shifts the burden of identifying solutions to those with the greatest self-interest, whose purpose is supporting capital-formation in the secondary market. It worked in 1792 and all the way until 1997. It can work again.

Ideas abound, and sorting out what to do can be so daunting that effort dies on the vine. We encourage the Commission and the SROs not to give up! However, let market-driven creativity and self-interest contribute. And please include issuers, whatever the case. Without them, after all, there is no equity market. The rules and plans should not be devised solely by intermediaries.

Yours Sincerely,

Tim Quast
President