KORgroupLLC

April 4, 2014

Via Electronic Mail (rule-comments@sec.gov)

U.S. Securities and Exchange Commission
100 F. Street, N.E.
Washington, DC 20549-1049

RE: ***File No. S7-02-10; Concept Release on Equity Market Structure Initiatives; File No. 4-657; Regulatory Initiatives Under the JOBS Act: Title I; Comments concerning SEC Initiatives required under H.R. 3448 "Small Cap Liquidity Reform Act of 2014"***

Dear Ms. Murphy:

KOR Group LLC appreciates the opportunity to provide insight and suggestions on the Securities and Exchange Commission's "SEC" efforts to enhance U.S. Market Structure for the benefit of investors. The Market Structure debate is a contentious one that has enthralled the entire Financial Services industry. KOR submits our recommendations as the SEC begins to re-engage reforming U.S. market-structure. KOR believes our recommendations these changes would have an enormously beneficial impact on US equity markets.

KOR's principles are simple:

- **Transparency**: "Sunlight is … the best of disinfectants." – Supreme Court Justice Louis Brandeis
- **Metrics:** In order to evaluate any changes, a new set of metrics must be agreed upon and developed.
- **Data Freedom:** All recommendations and rulemaking must be data-driven; In addition to the Division of Economic & Risk Analysis "DERA", data should be in the provided to academics, researchers and the public.
- **Displayed Liquidity:** Displayed price discovery is one of the critical functions of the market and must be encouraged.
- **Competition** for order flow is healthy for markets.

The KOR Group naturally follows from these principles:

- Modernization of Rules 605 (Market Quality Metrics) and 606 (Broker Routing Metrics);
- Passing of a trade-at rule for US equities, starting with including trade-at in the tick size pilot;
- Pilot to eliminate rebates, which includes a trade-at provision;
- More active SEC & FINRA monitoring and guidance on best execution rules;

- Full disclosure of all market center and Alternative Trading System filings;
- A push for the SEC to provide open access to MIDAS and any other market data research tools for general study by academics and the public.

Investors Deserve to know how well their orders are being executed and where they go

On July 28, 2000, the SEC proposed SEC 11Ac 1-5, order execution statistics & SEC 11Ac1-6[1], routing and material relationship aspects disclosures. The rules, now known as SEC Rules 605 and 606 were adopted in response to increasing competition and resulting fragmentation in the market. The SEC sought to assure investors that the U.S. National Market System continues to meet their needs by ensuring the practicability of Best Execution of all investor orders, including limit orders, no matter where they originate. The Commission noted that fragmented markets may isolate customer orders from full interaction with other buying and selling interests. The Commission also noted that Internalization and payment for order-flow practices contribute to an environment in which vigorous quote competition is not always rewarded.

Brokers have a duty of Best Execution in accepting orders and routing them to a market center for execution. Brokers generally act as agents for their customers and, although not specifically defined, owe them a duty of Best Execution, which is derived from common law agency principals and fiduciary obligations[2]. It is incorporated both in self-regulatory organization rules and through judicial and Commission decisions in the antifraud provisions of the federal securities laws. The duty of Best Execution requires a broker to seek the most favorable terms “reasonably available under the circumstances” for a customer order[3].

The SEC moved with decisive action, taking just five months to adopt a comprehensive framework of rules 605 & 606 and expediting the phase-in process by May of 2001 for both rules. For a period of time, the rules functioned as intended. Brokers increasingly sought Best Execution and regularly published various statistics regarding execution quality. Over time and in particular with the adoption of Regulation NMS, the rules became increasingly outdated and their usefulness, while still relevant, has diminished. In part, the rules have eroded due to the increasing complexity of order-types as well as speed and routing practices in today’s marketplace. Rules 605 and 606 have not kept pace with these changes. The SEC even went so far as to say “improved visibility could shift order-flow to those market centers that consistently generate the better prices for investors and the Commission will assess the impact of the rules to determine whether additional action is necessary to further the Exchange Act’s objectives for a National Markets System.”

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[1] See: http://www.sec.gov/rules/final/34-43590.htm#secv
[2] See: https://www.finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p003889.pdf
[3] SEC Order Handling Release at 48323, *NASD Notice to Members 96-65* at 541

Fourteen years later, modernization of Rules 605 and 606 has not happened. As such, broker evaluation is a difficult and subjective process. Further, there is no clear, independent measure of market quality by which the SEC can judge the efficacy of the rules that have been passed, most notably Regulation NMS. The US equity markets changed dramatically with the adoption of NMS in 2007, but there is no clear, definitive proof that market quality has improved since then.

Recently Congress held a hearing about Regulation NMS[4] and it was no surprise that Best Execution and conflicts were at the center of the debate, but there was no mention of either rule. Transparency can play a major role in creating efficient markets and provides SEC staff with the necessary tools to ensure brokers comply with their duty to benefit investors. In fact, many brokers regularly route their limit orders to different destinations than their market orders. This is done in spite of the fact that, in some instances, those limit orders could be afforded an offsetting execution to the market order or receive faster execution thorough Rule 5320[5] (Manning). While this is technically legal, it is unethical. Should Best Execution principles be revisited (as we are urging), a reexamination of this practice must be part of that process. Further, the lack of qualitative measurements in the Options markets has led to increased conflicts associated with agency order-flow inducements[6].

Now is the time to modernize Rules 605 and 606 before any other rules and changes are placed into the market. In modernizing the Rules, the following should be considered:

Modernize Rule 605/606 Execution Benchmarks, Measurements and Best Execution policy

Rule 605:

- Amend Rule 605 to capture the full range of order execution.
- Include dark and reserve orders as new order types.
- Require all ATS and Dark Pools to report under Rule 605.
- Shorten the reporting time-frame and require the reports be made available monthly 15 calendar days following the end of the preceding month. Require all historical reports remain freely and easily accessible.
- Require all quote and trade data to be carried out to the millisecond using proprietary feeds over the current SIP requirement.
- Require millisecond-level clock synchronization at every Exchange, ECN and ATS.
- Amend Rule 605 based on the time the broker's router receives the order.

[4] February 28, 2014 House Financial Services Committee hearing entitled "Equity Market Structure: A Review of Regulation NMS"
[5] See FINRA NTM 11-24
[6] See To Pay or Be Paid: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1954119

- Replace execution time categories as follows:
    - Less than 500 microseconds
    - 500 microseconds – 1 millisecond
    - 1-10 milliseconds
    - 100 milliseconds to one second
    - Current time categories
- Expand coverage to Odd-Lot orders especially since they are now tape reportable.
- Expand order buckets size categories:
    - 1-99 shares
    - 100 share increments to 9,999 shares
    - 10,000 – 24,999
    - Greater than 25,000
- Add Covered Trades.
- Expand Realized Spread into separate buckets (e.g. 50ms, 100ms…3minutes) to better identify adverse selection.
- Require "Immediate or Cancel", "Peg", "Flash" order types to be reported separate from Market Orders.
- Include Market Opening/Closing orders.
- Add "Realized Liquidity" by taking the displayed BBO size in relation to the size of the order.
- Include broker-dealer order receipt time as a measurement in addition to market center receipt time.
- Add Quoted Spread.
- Add Spread Leeway (Quoted spread divided by the Minimum Price Variation).
- Require all non-marketable limit orders to be set on a timer so that once they are displayed at the BBO, average time to execution is displayed.
- Require that execution data contains header information.
- Require Broker-Dealers who route orders to execution venues to make 605 data about those orders available.
- Statistics should be calculated for:
    - Orders that execute on the receiving platform
    - Orders routed out
    - Routed and not routed orders
- Expand Rule 605 to Exchange traded option securities.

Modernize Rule 605/606 Execution Benchmarks, Measurements and Enforcement

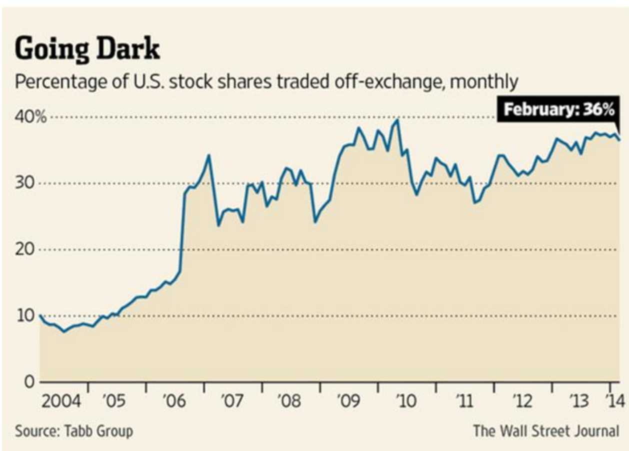
Rule 606

- Remove AMEX, NYSE and Nasdaq and replace with "NMS Securities."
- Add OTC Bulletin Board/OTC Market securities.
- Include category "Odd Lot Orders."
- Include category "Marketable Limit Orders."
- Include information on the percentage of shares executed versus sent.
- Include block transactions.
- Require Rule 606 cover 100% of order flow received.
- Require Directed Orders to be reported as a separate category from Non-Directed Orders, removing the current exemption.
- For executing venues: Require total payments or charges are reported by Broker-Dealer.
- For Broker-Dealers: Require total payments or charges received be reported under information concerning significant venues.
- For Brokers that send orders to internalized executing center, require payments or charges on the aggregate order-flow to be reported.
- Require the execution venue to be reported. In the case of options, report on exchange where the order executed rather than the intermediary.
- Require the reports be made available monthly 15 calendar days following the end of the preceding month.
- Require that all current and historic reports be freely and easily accessible and downloadable in a pipe delimited format.
- Require field of average payments received be reported out to the hundredths of a cent, rather than maximum's (e.g. less than $0.01).
- Require Broker-Dealers to post explicit details regarding payments, costs and execution metrics agreed to by the executing firm.
- Require greater transparency around broker-dealer internal order routing practices and decisions.

Transparent reporting is a necessary first step prior to rolling out the broader structural changes under consideration. Qualitative reporting and disclosure of routing practices allows for analysis of the effects of order routing practices, competition, pricing and other metrics, which in turn allows for better outcomes and fewer unintended consequences of broader change.

Adopt a Trade-at regime for NMS securities.

Broker-Dealer internalization and dark pool trading have grown dramatically since the adoption of Regulation NMS in US equity markets. As of February 2014, 36% of US stock trading volume is transacted off-exchange. In 2010, in response to growing dark volume, the SEC issued a concept release seeking comments on all aspects of a trade-at rule[7]. Trade-at was further expounded upon following the market events of May 6th, 2010 from the CFTC & SEC Joint Advisory Committee on Emerging Regulatory Issues[8]. In their findings, the committee recommends that:



"The SEC studies the costs and benefits of alternative routing requirements. In particular, we recommend that the SEC consider adopting a 'Trade-at' routing regime."

Trade-at regimes are found in U.S. Markets

Unlike the equity markets, all options trades must be executed on an exchange[9]. There is no Trade Reporting Facility (TRF) as is found in the equity markets and no off-exchange internalization is permitted. Moreover, the strength of the options model was borne out on May 6th, 2010 when the options markets were able to absorb the spikes in volatility better than the underlying equities[10]. In the Report from the CFTC/SEC to the Joint Advisory Committee on Emerging Regulatory issues, staff noted:

"In general, the options markets and participants reported that trading in options did not experience similar disruptions as in the underlying securities markets".

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7 See SEC Concept Release https://www.sec.gov/rules/concept/2010/34-61358.pdf

8 See Joint Advisory Committee on Emerging Regulatory Issues recommendations: http://www.cftc.gov/ucm/groups/public/@aboutcftc/documents/file/jacreport_021811.pdf

9 *See* Securities Exchange Act Release Nos. 42894 (June 2, 2000), 65 FR 36850 (June 12, 2000) (File No. SR-Amex-99-36); 42835 (May 26, 2000), 65 FR 35683 (June 5, 2000) (File No. SR-CBOE-99-10); 42848 (May 26, 2000), 65 FR 36206 (June 7, 2000) (File No. SR-PCX-99-18). *See also* Securities Exchange Act Release No. 42455 (Feb. 24, 2000), 65 FR 11388 (Mar. 2, 2000) (concerning the ISE's "facilitation mechanism").

10 See Report from the CFTC/ SEC to the Joint Advisory Committee on Emerging Regulatory issues (I.D. 62): http://www.cftc.gov/ucm/groups/public/@otherif/documents/ifdocs/staff-findings050610.pdf

Furthermore, there were no significant liquidity shortages reported in the options markets on May 6th and very few trades were broken or adjusted. Another unique aspect of the options markets is there are thirteen exchanges aggressively quoting displayed liquidity which is significantly greater than what is found in the equity markets. Furthermore, liquidity in the options markets across the thirteen quoting exchanges shows greater displayed liquidity than what is found in the underlying equity markets in many NMS securities[11].

Recently, Congress passed H.R. 3448 "The Small Cap Liquidity Reform Act of 2014" which seeks to widen spreads to a minimum increment of $0.05. The Act, among other items, requires that the SEC determine the increment at which the securities of such companies are traded[12]. Congress realized that simply widening quoted spreads without making a determination of the trading increment could lead to greater internalization, thus diminishing the intended goal of enhancing displayed liquidity on Small Cap securities. As the Commission considers the increments, KOR strongly suggests the Commission also consider adopting a Trade-at pilot in conjunction with widening spreads.

The benefits of a Trade-at regime outweigh the burdens.

A trade-at program should begin as a pilot, allowing for the Commission and others to study the effects to help determine whether the pilot should be expanded or eliminated. Recently Canada and Australia adopted Trade-at regimes to dissuade off board trading. In creating a trade-at for NMS securities, KOR invokes features adopted by both Canadian[13] and Australian markets. Namely, provisions for a trade-at should, at a minimum, have the features described below:

- Define "better price" to mean a minimum of one trading increment except when the difference between the best ask price and the best bid price is one trading increment. In such cases, the amount shall be a minimum of one-half of one trading increment.
- Permit the SEC to designate a minimum size for orders that are not displayed in a consolidated market display.
- Permit the SEC to designate a minimum size for block orders that must be displayed in a consolidated market display.
- Provide that an order entered on a marketplace must trade with visible orders on that marketplace at the same price before trading with dark orders at the same price on that marketplace.
- Require, subject to certain exceptions, an order entered on a marketplace that trades with an order that has not been displayed in a consolidated market display to either:

[11] See Illiquidity Premia: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1784868
[12] See H.R. 3448: http://beta.congress.gov/bill/113th-congress/house-bill/3448/text
[13] See IIROC: http://www.iiroc.ca/Documents/2012/77c0af22-004e-417d-9217-a160b3fcb5c5_en.pdf

  o receive a better price, or
  o be for more than 50 standard trading units or have a value of more than $100,000.
- Mandate that Price-Improving Orders may only occur at the mid-point of the NBBO spread at the time of order-execution.
- Begin selection of Trade-At pilot securities with the roll-out of the decimal pilot for Small Cap securities. In doing so the Commission should seek to select ½ of the decimal pilot securities for inclusion in a Trade-at Pilot. This selection must be randomized.

KOR believes that such an approach would lead to sound data, allowing for a reasonable determination as to whether such a pilot should be expanded or eliminated.

Re-Examination of Maker-Taker

The maker-taker model has become the predominant economic model for exchanges in the US stock market. Under this model, those who post orders are called "makers." If an aggressive order crosses the spread, that is called the "taker." In this model, generally, exchanges pay rebates to the "makers" and charge fees to the "takers." The exchanges make the "vig," the difference between the rebate and fee. This "vig" generally ranges from $0.0003 – $0.0015. Generally, longer-term investors are "takers" while Market Makers will be the "makers" (though this statement is not meant to be construed as always true. Certainly long-term investors will enter positions passively at times). The fees paid to "take" liquidity vary, but are capped by regulation at $0.003 through Rule 610 "Access Rule" of Regulation NMS[14], and generally trend towards that cap, as would be expected.

KOR believes Maker-Taker suffers from many flaws, including but not limited to:

- A lack of transparency around net-pricing. The publicly quoted price is not the actual price when access fees are accounted for.
- The incentivizing of churn and volume-trading for rebate collection, rather than liquidity provision and price discovery.
- The conflict-of-interest created for brokers (most notably retail brokers, but certainly anyone acting as an agent) to route "cost effectively" by default. This results in brokers attempting to minimize access fees and maximize rebates while charging their clients a fixed price (either per-trade in retail or per-share for institutions) and keeping the cost savings / rebates for themselves.

While many will argue that economic forces and free market competition are enough to address these problems and to determine the equilibrium business models for exchanges, KOR would argue that this is

[14] See Reg NMS File No. S7-10-04 ID (27) https://www.sec.gov/rules/final/34-51808.pdf

naïve and overly optimistic. We are already in an environment of price controls and heavy regulations. It should be clear that nearly all lit trading venues (and certainly all venues with substantial volume) have become maker-taker with access fees for taking liquidity at the cap determined by the SEC. This is the result of a race-to-the-bottom in which each exchange is forced to increase rebates, add liquidity tiers and increase fee complexity in order to compete with the other exchanges. Other models cannot be successful in this environment where the predominant supplier of liquidity is driven by rebate collection and has driven out most other suppliers of liquidity.

There is an argument to be made that brokers will still remain sophisticated and will route order flow to ensure Best Execution for their clients. Unfortunately, the definition of Best Execution has become outdated and can still be claimed despite clear evidence that brokers are routing for their own interests rather than the interests of their clients. In one of the only studies to examine this conflict-of-interest, a study from Notre Dame by Battalio, Corwin and Jennings (March 2014)[15] offers "strong evidence that venues with high take fees (liquidity rebates) offer inferior limit order execution quality." The authors present substantial evidence that order routing decisions are governed by the fee schedules rather than execution quality, making the following conclusions:

"Limit orders resting on venues with high take fees require more time to fill than those on venues with lower take fees."

"For take fee differences exceeding $0.0001 per share, the lower take fee venue has higher measured limit order execution quality."

"The decision to route the bulk of one's limit orders to a single venue offering the highest liquidity rebate is inconsistent with a broker's fiduciary responsibility to obtain best execution."

"Inverted venues have shorter queues and are at least as likely to receive marketable orders as the traditional venues."

"Several large, national brokerage[s] are making order routing decisions that appear to be consistent with the goal of maximizing order flow rebates. … Proprietary data suggests this type of order routing results in lower fill rates and increased adverse selection costs."

KOR strongly supports a pilot program to eliminate rebates[16]. The pilot program could be run concurrently with the tick size pilot, as it can be run in an entirely different class of securities designated by market capitalization. Such a program would shift the incentives for liquidity providers away from capturing rebates and towards spread capture. It would encourage a greater diversity of timescales for

[15] See: Can Brokers Have it all? http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2367462
[16] See : http://kortrading.com/wp-content/uploads/2014/03/ssrn-id1584026.pdf

providing liquidity, especially when done in conjunction with a trade-at provision. Current liquidity providers believe that rebates are necessary on lit exchanges to compensate for the high levels of adverse selection that result from a high level of off-exchange trading. KOR understands this concern and therefore would argue for a similar trade-at provision in this pilot as in the tick size pilot – that half of the pilot securities also have a trade-at provision. KOR believes that the designation of a group of securities with no rebates and the implementation of a trade-at provision will demonstrate substantially superior metrics for liquidity and spreads. KOR also believes that, under these reforms, much of the order book instability associated with illiquidity contagions will disappear.

When Rule 610 of Regulation NMS was adopted, no studies were conducted as to the appropriateness of a fee cap. This is true in spite of the fact that Rule 610 was one of the most controversial aspects of the new Regulation. It is only through a pilot program that the effects of these rule changes can be adequately monitored and compared. We believe that the results will be clear and quick and that it will be obvious, in short order that the pilot should be made permanent.

Improved Technology Across the Industry

There is no doubt that the technology revolution that has swept the Financial Services industry has brought incredible benefits. Those benefits have brought down trading costs over the last 20 years in an unprecedented fashion. As we work to implement reforms, it is critical to ensure that we do not negatively affect any of those improvements in markets. It is our belief that there are several important but simple things that can be done, which will have significant impact on market quality and public trust in markets.

Healthy Markets has identified many problems that have accompanied these technology changes. These problems include:

- Research
    - Markets have become difficult to study. The amount of data to study is immense, and requires resources (computing and storage) and skills (finance and parallelized research design) that many academics (and the public) don't have.
    - Obtaining data is even more difficult. There is no free, public source for complete depth-of-book data on markets, and no data on dark pool IOIs and lit market IOCs. When academics are able to obtain data, it's either very limited (i.e. Nasdaq makes its data available) or it is sponsored by an HFT firm or broker. When the results of the research don't conform to the sponsor's agenda, access is cut off.
- Complexity
    - Technological complexity has resulted in a much higher incidence of technology problems. Infrastructure is highly connected, and in some cases poorly maintained. The

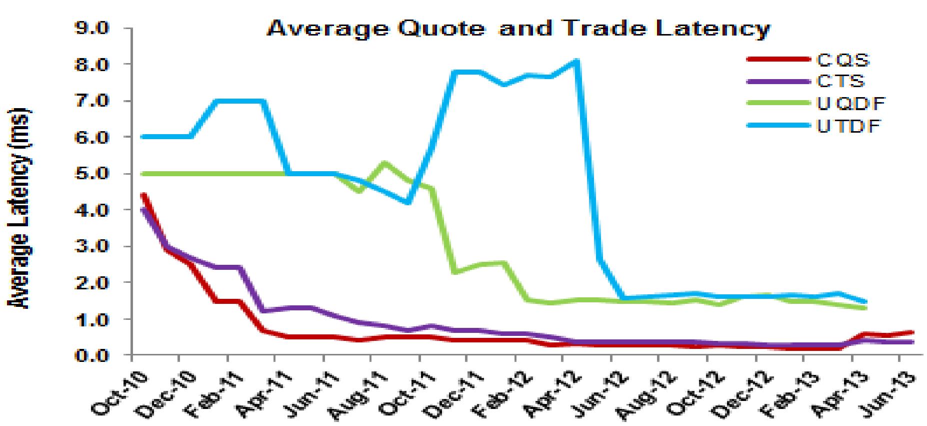
Securities Information Processor "SIP" is the perfect example, where incentives are not aligned for keeping the technology competitive with high-performance systems[17].

- Transparency
  - It has become easier to hide behind technology and reduce transparency.
  - The explosion of Alternative Trading Systems has increased a part of the market where there is no visibility, either from a quoted price discovery perspective or from a regulatory filing perspective.

Healthy Markets believes there are actually three simple answers to address these problems:

1. MIDAS reform
   a. Add Dark Pool IOIs and market-wide IOCs to MIDAS. MIDAS should be able to study this huge part of the market that it is unable to see right now. Quotes in Dark Pools are just as important as those in lit pools. Ultimately, obfuscated participant ID's should be associated with each quote and trade to allow MIDAS to do proper research. Both of these efforts should be kicked off immediately.
   b. Provide open access to MIDAS to all qualified researchers, academics, and even the public. Anybody who wants to study markets should be able to. The value of this step cannot be overstated. The open source movement has shown the world that there is a better, more collaborative way to build software and study problems. There is no downside to this, other than cost of Amazon instances, and the value received for that cost would be tremendous.
2. Data feed reform
   a. All exchanges should synchronize their system clocks to the microsecond. This is no longer difficult or burdensome, and is a critical step towards understanding cross-market dynamics. It would also allow participants to see a more similar NBBO though they may be geographically dispersed.
   b. Mandate that any ATS that matches trades in a manner dependent on the NBBO has to use direct feeds to calculate the NBBO. Furthermore, for those firms that do not strictly run an ATS, they have to produce reports that demonstrate that their latency to process

[17] SIP Transit Latency: Source: CTA



the feeds and receive data **within the application** is the same as, or lower than, any other business unit that receives those feeds. This is critical to ensure that they do not simply route the direct feeds in, but process them so slowly as to replicate SIP performance (or worse). Firms should be made to understand the principles behind this, and should be audited on a regular basis to demonstrate they are adhering to those principles.

   c. A longer-term goal should be to have SIP performance that is the same as, or superior to, direct feeds. While direct feeds carry depth-of-book information that is important for some participants, they should never be **received** before the same update on the consolidated SIP feed. This is an important distinction for regulators to make – the perspective needs to shift from when data is transmitted from a market center, to when that data can first **be received** by a participant. ***Focus needs to be on data receipt time, not data transmission time.***

3. Regulatory Filing Reform
   a. All ATS filings should be made immediately public in the same manner as Self-Regulatory Organizations "SRO"s. All future filings should go through the same public comment process as SRO filings. It is a simple historical circumstance that ATS filings are hidden from the public while the burden is on SROs to file publicly. This does not serve the public interest in any way, and makes it easy for media and others to sensationalize and demonize what is occurring in this part of the market. There should not be any reasoned argument against this.
   b. FINRA should change how they are going to be reporting dark volume statistics. Once again, the data should be made readily available in a programmatic fashion for free. FINRA should ensure that all data can be accessed either in a delimited file format or via API, and this access should be free. There is no excuse for a regulator to try to profit from data that is being made publicly available.

Once again, KOR believes guiding principles are what the entire industry should aspire to: Transparency, Quality Metrics, Data Freedom and Displayed Liquidity. When discussing technology, we should also aspire to simplicity wherever possible, and an understanding of complex systems wherever necessary.

KOR Group appreciates the opportunity to provide recommendations to strengthen our National Market System. Should you have any questions, please do not hesitate to contact Christopher Nagy at 402-312-7918, or Dave Lauer at 856-448-4545.

Sincerely,

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