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September 26, 2016

By Electronic Mail

Mr. Brent J. Fields
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: *Disclosure of Order Handling Information; Proposed Rule*, Release No. 34-78309; File No. S7-14-16

Dear Mr. Fields,

IHS Markit appreciates the opportunity to provide the Securities and Exchange Commission (“**Commission**”) with comments on its proposed rule regarding Disclosure of Order Handling Information (“**Proposal**”).¹

IHS Markit² (Nasdaq: INFO), is a world leader in critical information, analytics and solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 key business and government customers, including 80 percent of the Fortune Global 500 and the world’s leading financial institutions. IHS Markit has been actively and constructively engaged in the debate about regulatory reform in financial markets, including topics such as the implementation of G20 commitments for OTC derivatives and the design of a regulatory regime for benchmarks. Over the past years, we have submitted more than 150 comment letters to regulatory authorities around the world and have participated in numerous roundtables.

IHS Markit’s Information Services division³ is a leading provider of compliance, analysis, and reporting of best execution and related execution quality data for broker-dealers, Alternative Trading Systems (“**ATs**”), and stock exchanges. We believe our expertise in U.S. equity market structure and our experience in collecting, analysing and publishing execution statistics for retail, institutional and regulatory market participants gives us a unique perspective on transparency around the handling and routing of institutional customer orders by broker-dealers. This letter addresses the comments requested by the Commission in the Proposal. We present our general comments and recommendations first and then answer the specific questions asked in the Proposal.

¹ Disclosure of Order Handling Information; Proposed Rule, Securities Exchange Act Release No. 78309 (July 13, 2016), 81 FR 49,432 (July 27, 2016).

² See www.ihsmarkit.com for more details.

³ See <http://www.markit.com/Product/BestEx> for more details.

Executive Summary

IHS Markit is very supportive of improving transparency into the equity market. In particular, we believe that the Proposal should have three clearly articulated goals:

- 1) Enable professional investors to have enough detailed information about their own orders to have intelligent conversations with their brokers about routing decision-making.
- 2) Enable investors to understand the full lifecycle of how equity market orders are handled by brokers and market centers by providing transparency, on an aggregated basis, of all order routing relationships of those brokers and market centers; and
- 3) Enable investors to make more informed decisions on where to send their own orders by providing meaningful data on how their orders are handled by their brokers and how similar orders are handled by other brokers and market centers.

To achieve these goals, we suggest that the Commission's rulemaking encompass the requirement for brokers to make an institutional routing report available to professional investors and other improvements to Rule 606 of Regulation NMS ("**Rule 606**").⁴ We further suggest subsequent rulemaking include complementary improvements to Rule 605 of Regulation NMS ("**Rule 605**")⁵ and together with Rule 606, the "**Rules**") designed to synchronize the order categorization and statistics required so that the Rules together form a cohesive framework for the disclosure of execution information. We also suggest that the Commission's rulemaking with respect to both Rules follow three operating principles:

(a) Focus -- achieve specific objectives for a clear group of participants:

- Trading Centers – All executing venues, under a new Rule 605, should provide an aggregated view per stock, per type of order of their execution quality. This data should be targeted at professionals who make very granular routing decisions.
- Routing Brokers – All brokers that receive client orders and subsequently route orders (either as a whole or in part) on behalf of the client, under the new Rule 606, should provide an aggregated view per venue they route to, of both the execution quality received and a statistical view of all orders and messages routed. This data should be targeted at a combination of professional investors and the general investing public to help with the broker selection process and to improve understanding of how the market functions.

(b) Simplicity -- In both Rules, order categorization should be based on commonly understood and tracked characteristics of the order itself, rather than attempting to derive the type of investor sending the order based on the order's size or notional value. This will be more efficient to implement as brokers' systems would not require adjustment, and will provide higher quality statistics and avoid ambiguities that can increase costs while hurting data quality.

⁴ 17 CFR 242.606.

⁵ 17 CFR 242.605.

(c) **Completeness** -- Exemptions to the Rules, if any, should be extremely narrow and justified. The default position should be that all orders traded during market hours are included in the statistics disclosed.⁶

Considering both the goals and the operating principles set forth above, IHS Markit respectfully submits that the Proposal, while offering some progress, falls short. The Proposal utilizes an arbitrary, bifurcated design, does not provide meaningful comparative analysis, and adopts a flawed approach to understanding the inter-relationships of liquidity providers and routers.

(i) *Arbitrary, Bifurcated Design* -- The Proposal's bifurcation of orders based on notional value into "institutional" and "retail" is inaccurate, and could render the disclosures ineffective. This would result in continued opacity of how each kind of market participant routes orders. We would propose instead to categorize orders based on commonly understood and used characteristics that are associated with each order, with the primary differentiation being between "held" and "not held".⁷ Broker dealers in the U.S. already characterize orders on that basis to comply with Rule 605's covered order requirement,⁸ OATS technical specifications⁹ including with respect to the data collection requirements for the Tick Size Pilot,¹⁰ and other rules such as Manning.¹¹

⁶ For example, Rule 606 applies to non-directed orders only. See 17 CFR 606(a)(1). The Commission has interpreted non-directed orders to exclude those orders routed pursuant to a default setting (subject to disclosure to the customer and a reasonable list of alternate execution venues). See Division of Market Regulation: Staff Legal Bulletin No. 13A, Frequently Asked Questions About Rule 11Ac1-6 (the predecessor to Rule 606), Question 8, available at: <https://www.sec.gov/interps/legal/mrslb13a.htm>. ("Rule 606 FAQs"). This means that Rule 606 does not capture most of the routing that brokers direct to their smart order routers ("SORs") which we believe represents a significant number of orders. In addition, once an order is classified as being a "directed order" and therefore excluded from Rule 606, the order is not re-classified as "non-directed" if the default venue fails to execute the order and it is instead re-routed. *Id.* Another example is that Rule 606 applies to customer orders only. See 17 CFR 606(a)(2). The Commission has interpreted "customer orders" to exclude those orders received from other broker dealers and foreign banks acting as broker dealers and routing orders to US execution venues. See *Id.* Question 7. The Proposal appears to maintain the exclusion of orders from other broker dealers. See Proposal at 49444 (proposing new Rule 600(b)(31) to define an "institutional order" as an order to buy or sell a quantity of an NMS stock having a market value of at least \$200,000, provided that such order is not for the account of a broker-dealer). We believe these exclusions result in Rule 606 reports not covering a significant number of orders, particularly in light of the growth of ATs and routing among exchanges. Among our other recommendations in this letter, we suggest these interpretations be narrowed to exclude only those orders where a customer affirmatively directs the order to a particular execution venue, and exclude only those orders received from other broker dealers and foreign banks acting as broker dealers and routing to US execution venues that were directed by such broker dealers and foreign banks acting as broker dealers.

⁷ Generally, a "not held" order provides price and time discretion to a broker dealer to execute it.

⁸ See 17 CFR 242.600(b)(15) (defining a covered order as excluding, among other orders requiring special handling, orders submitted on a not held basis).

⁹ See OATS Technical Specifications dated as of September 12, 2016 (providing for NH special handling code for not held orders), available at: http://www.finra.org/sites/default/files/TechSpec_9122016.pdf. ("OATS Technical Specs").

¹⁰ The Commission approved FINRA's and the SRO's plan for a Tick Size Pilot on May 6, 2015 (see Securities Exchange Act Release No. 74892 (May 6, 2015), 80 FR 27513 (May 13, 2015), extended the implementation date to October 3, 2016 (see Securities Exchange Act Release No. 76382 (November 6, 2015), 80 FR 70284 (November 13, 2015), and then approved FINRA's implementation Rule 6191(a) on February 23, 2016 (see Securities Exchange Act 77218 (February 23, 2016), 81 FR 10290 (February 29, 2016) (collectively, the "Tick Size Pilot"). See also FINRA Tick Size Pilot Program, Appendix B and C

- (ii) *Lack of Comparative Metrics* -- The Proposal does not provide investors with aggregated, execution quality statistics to enable evaluation of routing strategies, nor does it categorize routing behavior in a manner that would facilitate investor decision-making. For new Rule 606, we would propose to standardize the disclosure of execution quality statistics at an aggregate level (i.e. not stock or venue specific) for all order categories for held orders handled by order routing firms, and aggregated at a venue level for not-held orders handled by order routing firms.. For new Rule 605, we would further propose to standardize the same categorization of orders for market centers, without exemptions, and those reports should be on an individual symbol basis.
- (iii) *Flawed Approach to Interrelationships* -- The Proposal does recognize the importance of Indications of Interests (“**IOIs**”) in the context of routing, but the Proposal excludes a major source of IOI activity: Many SORs accept IOIs and use them for making routing decisions, while few actually send IOIs. The new Rule 606 should also require disclosure of routing statistics in response to IOIs *received* by SORs including the fill rates on orders sent to external liquidity providers (“**ELPs**”) or other venues, categorized by the receipt of a contra-side IOI or not. Rule 606 should not, however, require the disclosure of either conditional orders or IOIs sent to institutional clients.

IHS Markit Proposal: Based on the above goals and principals, IHS Markit suggests that the new Rule 606, including an institutional routing report, distinguish between “held” orders, which are predominantly retail, and “not held” orders, which are mainly institutional. We further recommend that publically disclosed data pursuant to the new Rule 606 be standardised for both categories. This would require that the Commission abandon the use of \$200,000 in notional value in proposed Rule 600(b)(31) to determine whether orders are primarily institutional or retail,¹² but would achieve the Commission’s goal of providing more information to institutional customers about how their orders are routed.¹³

In addition, we propose that each category of “held” and “not held” order be subdivided in a manner to provide statistically valid comparisons of the data and to include basic execution quality metrics. We would suggest, however, that the “held” order execution quality metrics be limited to

Statistics, Frequently Asked Questions, Questions 3.2 and 4.4, available at: <http://www.finra.org/sites/default/files/Tick-Size-Pilot-Appendix-B-and-C-FAQ.pdf>. (“**Tick Size Pilot FAQs**”)

¹¹ See FINRA Rule 5320 (exempting not held orders).

¹² See Proposal at 49444.

¹³ See Proposal at 49443 (citing commenters requests for specific disclosures for institutional orders in Rule 606 (“Many commenters called specifically for the disclosure of order routing information to institutional customers, noting in various ways that the existing Rule 606 disclosures do not cover large orders and as a result institutional customers may not receive meaningful information about how their orders are routed.”)).

the aggregate (not venue specific) level, to avoid presenting confusing or misleading information to non-professional investors.¹⁴

For basic execution quality metrics, we suggest three sub-categories of “not held” orders. The first category would cover orders which are worked over a time period, which include all “high touch” orders routed to sales-traders, and orders sent to algorithms that have the discretion to execute the order over a time period. The second category would cover orders which clients expect routing virtually immediately, such as orders sent to SORs, where the broker dealer is provided the discretion to route to venues of their choice. The third category would cover orders which are directed to an individual destination, including markets affiliated with the broker dealer. All three sub-categories should be grouped into immediate-or-cancel (“**IOC**”) and regular (“**DAY**”) orders, marketable and non-marketable, and within size categories consistent with Rule 605, but with the addition of both odd lots and large orders.¹⁵ A proposed report is included as Appendix A.

It is important to point out that the proposed changes suggested in this letter are consistent with pending regulations on best execution in Europe of Markets in Financial Instruments Directive II (“**MiFID II**”).¹⁶ The rules contained in MiFID II’s draft technical standards are scheduled to take effect on January 3, 2018, and will require both brokers and asset managers to seek best execution according to a rigorous framework.¹⁷ Article 27 of MiFID II and the related Regulatory Technical Standard clarifies that, for the best execution requirement, an important part of the requirement is to determine the “likelihood of execution”¹⁸ when routing.

¹⁴ The Financial Information Forum (“**FIF**”) Rule 605/606 Working Group prepared a best practices template for execution quality statistics for the retail community. The FIF template presents this information at an aggregate level since retail routing firms often send orders of varying difficulty to specific market centers based on their own analysis of market center capabilities. FIF’s template and retail execution quality statistics of the retail broker dealers and wholesale market makers electing to use the template can be found at: <https://www.fif.com/tools/retail-execution-quality-statistics>.

¹⁵ Rule 605 does not apply to orders in size less than 100 shares or more than 10,000 shares. See Division of Market Regulation: Staff Legal Bulletin No. 12R (Revised), Frequently Asked Questions About Rule 11Ac1-5 (the predecessor to Rule 605), Question 27 available at: https://www.sec.gov/interps/legal/slbim12a.htm#P370_57951. (“**Rule 605 FAQs**”) and 17 CFR 242.600(b)(8) and (b)(57) (defining a “bid” or “offer” and a “protected bid” or “protected offer” in terms of round lots of an NMS security only).

¹⁶ The European Commission adopted MiFID II in May 2014 and published it in the EU Official Journal in June 2014. MiFID II empowers the European Securities and Monetary Authority (“**ESMA**”) to develop draft regulatory technical standards (“**RTS**”) and implementing technical standards (“**ITS**”) and together with the RTS, the “**draft technical standards**”) which ESMA delivered in June, September and December of 2015. An overview of MiFID II and copies of ESMA’s draft technical standards may be found at: <https://www.esma.europa.eu/policy-rules/mifid-ii-and-mifir>.

¹⁷ See Article 27(10) of MiFID II and RTS 27 and 28 of Chapter 9, Annex 1 (Best Execution) available at: https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-esma-1464_annex_i_-_draft_rts_and_its_on_mifid_ii_and_mifir.pdf.

¹⁸ Article 27 of MiFID II states that: “Member States shall require that investment firms take all sufficient steps to obtain, when executing orders, the best possible result for their clients taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order”

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0065&from=EN>
MiFID II Regulatory Technical Standard 28 reinforces this by stating that “Investment firms shall publish for each class of financial instruments, a summary of the analysis and conclusions they draws from their detailed monitoring of the quality of execution obtained on the execution venues where they executed all client orders in the previous year. This information shall include: (a) an explanation of the relative

Disclosure on the part of routing brokers, including the fill rates they experience from different venues, in the proper context of the orders sent, would be necessary for asset managers and investors to understand how likely their orders were to be executed and, therefore, improve the ability of those subject to MiFID II to comply with the proposed requirements.

Our final recommendation is to limit the requirement in proposed new Rule 606(b)(3) for a aggregated institutional order handling report¹⁹ to be made available only to the customers of those institutional orders that are Qualified Professional Asset Managers (“QPAMs”) and broker dealers. That report, which is quite detailed and designed for framing detailed routing conversations between professional asset managers and broker dealers would be inappropriate for non-professional investors. It would, however, be important for broker dealers acting on behalf of professional investors to have access to this report in order to document their best execution obligations. In addition, there are retail brokers who have potentially hundreds of thousands of clients that could potentially send an order during a six month period of over \$200,000 or with a “not held” designation. As a result, we believe that a limitation of the type of client that can request the report is important, within the rubric of our recommendations that include retail brokers as well as institutional brokers, as a “carte blanche” rule, would be quite burdensome to implement.

Discussion

- 1) The Proposal’s bifurcation of orders based on notional value into “institutional” and “retail” is inaccurate, and could render the disclosures ineffective. This would result in continued opacity of how each market participant routes orders. We would propose instead to categorize orders based on characteristics that are associated with each order, and exist on most order records maintained in the industry.**

We respectfully submit that attempting to classify orders as “institutional” and “retail” is a flawed premise due to changes in the industry. The growth of both independent Registered Investment Advisors (“RIAs”) and managed accounts which comingle retail investor assets for trading has led to an increasing amount of “retail” broker order flow having “institutional” characteristics. Retail brokers are sending significant amount of oversized “held” orders and some also send “not held” orders. Similarly, the advancement in sophistication of institutional systems has led to a significant amount of “institutional” order flow being sliced into smaller sizes before they are sent to broker dealers.

The data for both retail and institutional order flow underscores this point. Based on an internal analysis of institutional volume measured by our TCA platform,²⁰ 14% of institutional shares and

importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution;”

¹⁹ See Proposal at 49468-49469 (describing proposed Rule 606(c)).

²⁰ We studied over 750 billion shares executed in our broad institutional peer group worth over \$30 billion in notional value.

65% of institutional orders in the month of April 2016 were for less than \$200,000. This data is indicative of the increasing sophistication of asset managers that break orders up into smaller pieces in many cases. From the retail perspective, we sampled 10 trading days of multiple large retail brokers that utilize the IHS Markit best execution system in the same month and found that, on those days, over 10% of the shares traded, and over 20% of the value traded was from orders larger than \$200,000. In addition, we found very consistent data between retail brokers and the wholesale market makers that we sampled. Simply put, when trying to determine whether an order is “retail” or “institutional,” size does not matter.

Another concern with using notional value is that the \$200,000 distinction will essentially make orders “disappear” from institutional reporting once brokers start routing to multiple ATSS, exchanges and other brokers. Such route chains are common practice and would essentially stay hidden by this type of rule. Based on the data discussed above, more than half of institutional orders would not be disclosed under the Proposal. It is even possible that routes that wish to remain concealed could require brokers that use them to only send orders under the notional size threshold. In sum, using a notional value threshold to define reporting and disclosure requirements will contribute to the opaque nature of the market by effectively hiding some routing activity from the investing public.

In addition to the blurred lines between “retail” and “institutional” brokerage, there are also multiple characterizations of “retail” in equity regulations, including different language in the various SRO retail programs, the Tick Size Pilot, and this Proposal.²¹ These regulations are burdensome for firms to implement, since they must do separate processing to acquire the information they need to process orders instead of relying on information on the order itself. Our proposal, in contrast to the confusion of defining “retail,” would be very consistent with current practice. When “retail” orders are normally described by market makers or other trading firms, the key characteristic of those orders is that they are considered “held” orders. Such orders are subject to regulatory requirements: for example, Rule 605 (from the perspective of the market center, not the routing broker) requires execution quality statistics for “held” orders and best execution obligations are ordinarily determined by these statistics;²² Rule 611 of Regulation NMS guarantees limit order display protection for “held” orders if they do not exceed size limits;²³ and “Manning” rules ensure that the market maker must fill the “held” order first, before filling a principal order, even if the “held” order was accepted long after a principal order was sent to an exchange.²⁴ “Not held” orders generally are distinguished from “held” orders in regulations and from firms’ monitoring processes. In addition, retail brokers send both “held” and “not held” orders based on the type of underlying client, the discretion of their broker, and, quite often, the characteristics of the order

²¹ See, e.g., Joint Industry Plans; Order Approving the National Market System Plan to Implement a Tick Size Pilot Program, Exhibit A, Securities Act Release No. 34-74897 (May 6, 2016), 80 FR 27514 (May 13, 2016), available at: <https://www.sec.gov/rules/sro/nms/2015/34-74892-exa.pdf> (defining “Retail Investor Order” as “an agency or a riskless principal order originating from a natural person, provided that, prior to submission, no change is made to the terms of the order with respect to price or side of market and the order does not originate from a trading algorithm or any other computerized technology ...”). See also NYSE Retail Liquidity Program Fact Sheet, available at https://www.nyse.com/publicdocs/nyse/markets/liquidity-programs/RLP_Fact_Sheet.pdf (defining a retail order as “an agency order that originates from a natural person and is submitted to the Exchange by a Retail Member Organization (RMO). The order cannot originate from a trading algorithm or any other computer methodology.”)

²² See 17 CFR 242.600(15) and 17 CFR 242.605(a).

²³ See 17 CFR 242.611. As a matter of practice, most retail firms insist on the display of limit orders at share quantities higher than the regulation, which is up to 10,000 shares. See *supra* note 17.

²⁴ See FINRA Rule 5320.

itself. For example, orders that are a material percentage of average daily volume might be flagged in a system and routed on a “not held” basis, regardless of any “retail” or “institutional” categorization. This is done to avoid excessive market impact caused by forcing a broker to route the entire quantity to the market immediately. To leverage existing order characterizations and practice, we believe order routing disclosures in a new Rule 606 should be based on the type of order, rather than by an artificial distinction between retail and institutional.

For all of the reasons discussed above, instead of a regime with exemptions and over-broad categories, we propose that the new Rule 606 require that all routing brokers report on all orders routed on behalf of clients and classify those orders based on industry accepted characteristics of the orders they received. Routing activity should be characterized as being on behalf of “held” or “not held” orders at the highest level. Subsequent levels of reporting should segregate by the type of discretion given to the broker in the case of “not held” orders (to differentiate between working orders, SOR orders and directed orders) and should also segregate IOC from DAY orders). This structure, which would be simple to implement, since all of these characteristics are described in common order formats, would allow brokers to show how they routed on behalf of orders they accepted. Further disclosing execution quality statistics in coordination with Rule 605 would enable investors to evaluate routing decisions in full context. Our suggested Rule 606 disclosure report is summarized below and in Appendix A:

“Not Held” orders would be grouped into marketable and non-marketable based on the client’s limit price, and then sub-grouped into DAY (displayed and non-displayed) and IOC orders, and then further sub-grouped into 3 broad categories of discretion:

- a. Time and Venue Discretion -- This includes all orders sent to sales traders or traders to “work” as well as orders sent to trading algorithms that do not route the entire quantity to the market immediately.
- b. Venue Discretion only – This includes all orders sent to an SOR for immediate execution. For the sake of clarity, this would include all “routable” orders sent to exchanges that offer that service.
- c. Directed orders where the broker was instructed to send the order to a specific market center on behalf of their customer (this is typically referred to as DMA or Direct Market Access business).

For each of these groups and sub-groups, execution quality statistics should apply per venue in expanded order size buckets.²⁵

“Held” orders would be grouped into market, marketable and non-marketable groups based on the client limit price and sub-grouped into DAY and IOC orders. While further sub-groups based on discretion would not be applicable, the same execution quality statistics should apply in expanded order size buckets, but on an aggregated basis rather than venue-specific basis.

²⁵ See pg 9 and fn 27 infra.

2) The Proposal does not require even high-level comparative execution statistics between routing strategies, nor does it categorize routing behavior in a manner that would facilitate investor decision-making.

While we are supportive of the “on demand” reporting template proposed in Rule 606(b)(3) for institutional order handling (with the limitation that it be restricted to QPAMs and broker dealers), we believe that the fee and rebate data disclosures in proposed Rule 606(b)(3)(iv)(A)-(C) lacks actionable data. While it is useful to know the fees and rebates associated with a particular routing destination, it is only actionable if execution quality statistics are also available. Consider the following examples:

Example 1 – On behalf of “held” orders, a routing broker sends a high percentage of marketable orders to a venue that pays the routing broker rebates on those orders, while the routing broker also sends a smaller percentage of orders to a venue to which the routing broker pays net fees. In this example, the first venue offers an average of 20 cents per 100 shares of price improvement for those orders and the second venue offers little to no price improvement. In the Proposal, the public data will show only the fees paid and rebates received and the routing will be questioned publically. If, however, the price improvement and metrics such as effective spreads are included, the rationale behind the routing will be clear.

Example 2 – On behalf of “not held” orders, a routing broker sends a large percentage of marketable IOC flow to a venue, but receives very low fill rates and that venue does not pay a rebate nor charge a fee. The venue stands out from the routing broker’s list of routed IOC orders as having the lowest fill rate, but the venue also received the most orders. If that venue, however, also had the highest price improvement by a wide margin, the statistics would explain the routing more meaningfully.

We believe that a new Rule 606, in order to meet the goal of enabling investors to make better routing decisions should, therefore, require aggregated execution quality statistics. Specifically, we recommend that routing on behalf of “not held” orders disclose aggregated statistics for all order type / route venue combinations, while orders routed on behalf of “held” orders be limited to aggregated statistics for each type of order routed. We would further recommend that in subsequent rulemaking, the Commission should update Rule 605 to include symbol level statistics with the same order type breakdowns. Rule 606 is designed to provide information on how brokers route orders, including agency firms, while Rule 605 is designed to provide execution quality metrics to evaluate market centers. Both perspectives are needed for a full picture of the market.

In order to implement the disclosure of aggregate statistics, we suggest that routed orders be grouped as we specified above and in Appendix A. We would further recommend that for all categories the execution quality statistics of the routed orders be further subdivided into size categories consistent with Rule 605²⁶ (as modified to include additional size categories) in order to provide a consistent 360 degree view of the market. This would allow for reconciliation of routed shares in the aggregate to the aggregated execution quality statistics provided by trading centers in Rule 605, once that Rule is changed to eliminate exemptions and have similar categorization.²⁷ Both Rules should have four new size categories added for analysis including 1-99 shares (odd lots), 10,000 – 24,999 shares, 25,000 – 99,999, and 100,000+.

²⁶ See 17 CFR 242.605(10) (setting out current Rule 605 order size categories).

²⁷ In particular, we recommend the Commission eliminate Rule 605’s existing exemption for block orders, and include odd lots in the best execution analysis. See fn 15 supra.

Within each group and also size category, we would propose that the following be disclosed, in addition to the effective spread, price improvement / dis-improvement statistics and other data currently included in Rule 605.²⁸

- a. Marketable IOC orders/shares routed on behalf of order category
 - i. IOC orders/shares routed per venue
 - 1. Executed shares per venue
 - 2. Cancelled shares per venue
 - 3. Average rebate / fee per executed share per venue
 - 4. Average execution size per venue
 - 5. Average percentage of order executed when order receives an execution

- b. Non Marketable IOC orders/shares routed on behalf of order category
 - i. IOC orders/shares routed per venue
 - 1. Executed shares per venue
 - 2. Cancelled shares per venue
 - 3. Average rebate / fee per executed share per venue
 - 4. Average execution size per venue
 - 5. Average percentage of order executed when order receives an execution

- c. Marketable (non IOC) orders / shares routed on behalf of order category
 - i. Marketable orders / shares per venue
 - 1. Executed shares per venue
 - 2. Cancelled shares per venue
 - 3. Average rebate / fee per executed share per venue
 - 4. Enhanced liquidity provided (shares executed in excess of displayed shares at each price level)

- d. Non-Marketable (non IOC) orders /shares routed on behalf of order category (displayed orders)
 - i. Non-Marketable orders / shares per venue
 - 1. Executed shares per venue
 - 2. Cancelled shares per venue
 - 3. Average rebate / fee per executed share per venue
 - 4. Executed shares per venue divided by potentially executed shares per venue (based on subsequent executed trades on registered exchanges at the same price)
 - 5. Realized spread on fully executed orders

- e. Non-Marketable (non IOC) orders /shares routed on behalf of order category (non-displayed orders)
 - i. Non-Marketable orders / shares per venue
 - 1. Executed shares per venue
 - 2. Cancelled shares per venue
 - 3. Average rebate / fee per executed share per venue
 - 4. Executed shares per venue divided by potentially executed shares per venue (based on subsequent executed trades on registered exchanges at the same price)
 - 5. Realized spread on fully executed orders

²⁸ See Rule 605 FAQs Question 1 and Appendix A and B.

While this letter is focussed upon Rule 606 and the goal of understanding the behavior and execution quality of routing brokers, it is also worth noting that market center reporting in Rule 605 should also be enhanced to be consistent with the order categorization, separation of IOCs and completeness of reporting suggested for Rule 606 in this letter.

We would also make two recommendations for an amended Rule 605. Our first recommendation is that Rule 605 should be amended to provide more relevant metrics for non-marketable orders. In particular, we would suggest both displayed (lit) vs non-displayed (dark) categorization and more granular analysis of fill rates and execution quality, especially in light of MiFID II's requirement to collect data concerning "likelihood of execution."²⁹

The concept of breaking out lit vs. dark orders for analysis is not new, since it was implemented by the Commission in the data collection requirements for the Tick Size Pilot.³⁰ It has become particularly important, however, as investors try to evaluate venues such as the Investors Exchange ("IEX"), which was recently approved to be an exchange.³¹ This is because, as of now, IEX's 605 reportable limit orders are more likely to be dark orders, due to their innovative discretionary peg order type.³² Investors trying to evaluate the execution quality of posting lit orders on IEX, however, will only see stats that include those dark orders, which would make it hard to understand how lit orders would perform.

The second recommendation is that Rule 605 statistics for limit orders should include more granular analysis which would allow investors to gain insights into differences between market centers and the order types they provide. In particular, we would suggest adding statistics such as the percentage of shares where subsequent trades, during the life of the order, were "at" the limit price (this would allow the calculation of a fill rate normalized for potentially filled orders). In addition, the addition of a statistic such as the realized spread on unfilled orders, based on the price movement from order entry time until cancel time, rather than the arbitrary 5 minutes used to calculate it in the current Rule 605,³³ would help investors evaluate the opportunity cost of unfilled orders that are entered at the quote, inside the quote, or were marketable at the time of routing.

The inclusion of these two statistics for limit orders would be particularly helpful for investors that want to examine the trade-off between spread costs, explicit fees and likelihood of execution. Considering that MIFID II is going to essentially require large asset managers to do this, we respectfully suggest that the Commission should act now to upgrade our Rules in this manner.

- 3) The Proposal does recognize the importance of IOIs in the context of routing, but the Proposal excludes most IOI activity; Many SORs accept IOIs and use them for making routing decisions Few routers send IOIs, except for those sent to institutional clients, which we believe should be excluded from new Rule 606. A new Rule 606 should require disclosure of routing statistics in response to IOIs received by SORs including the fill rates on orders sent to ELPs or other venues, categorized by the receipt of a contra-side IOI or not.**

²⁹ See page 15 supra.

³⁰ The Tick Size Pilot's Test Group Three, known as the "Trade At Prohibition" was designed to address liquidity at dark and lit venues and test whether market participants would be incentivized to direct more liquidity to lit venues in a wider tick environment. See Tick Size Pilot at 27538.

³¹ See Securities Exchange Act 78101 (June 17, 2016), 81 FR 41142 (June 23, 2016).

³² See Investors Exchange Rulebook, Rule 11.190(b)(10) available at: <https://www.iextrading.com/docs/Investors%20Exchange%20Rule%20Book.pdf>.

³³ See 17 CFR 242.600(b)(6) (defining average realized spread).

This modification to Rule 606 would require that, in addition to the statistics noted above for routed IOC orders, all IOC orders (both marketable and non-marketable IOCs) show venue statistics both in the aggregate and conditional upon receipt of an IOI from the venue. This disclosure will provide a significant advance to the goal of shedding light on how order routing is conducted. It will also, at least in part, document the best execution approach of most routing brokers, including those with some of the highest volumes routed. The broker affiliates of exchanges, for example, utilize the receipt of IOIs as a key factor in determining what dark pool they should route orders to, but none of that is disclosed today.

To understand the importance of disclosing fill rates conditional upon IOIs, consider an example where an investor is comparing 3 firms' routing practices.

- Firm 1 receives no IOIs, has a fill rate of their IOC orders of roughly 30%, and executes roughly 10% of marketable shares in this manner.
- Firm 2 receives IOIs on around 50% of their executed and routed shares and also achieves a fill rate of 30%, but, on several venues, they receive fill rates lower than 1% when they did not receive IOIs, but the same venue might have acceptable fill rates overall by averaging the IOI based and non-IOI based routed orders together. This firm executes 40% of marketable shares in this manner.
- Firm 3 receives IOIs on 75% of their executed and routed shares and achieves a fill rate of over 50% on average, but only routes to venues which either send IOIs or provide a fill rate over 10%. This firm executes 25% of marketable shares in this manner.

Without knowing about the IOIs received, investors would have a hard time assessing the differences between firms. Firm 1, in this example, could be questioned as to why they limit their external routing, and refuse to utilize IOIs. Firm 2, meanwhile, should be questioned about why they route to venues where they are provided very low fill rates in cases where there was not an IOI, but if the statistics did not differentiate that case, investors would not be aware of that. Firm 3, on the other hand, would be in a very good position to explain their methodology to clients and regulators, and it would benefit investors to see that type of disclosure.

The Proposal, however, focuses on requiring disclosure of the IOIs sent by routing brokers on behalf of institutional orders. There are two types of such messages, with important considerations for each. First, brokers send IOIs to institutional clients to attract natural liquidity or find the other side of a trade. These tend to be sent to large lists of clients and are typically sent on behalf of either orders being worked or positions held by the broker from a previous order. It is important to consider that these lists could be extremely large and many recipients, which are institutional asset managers and not broker dealers, might have concerns about having their names disclosed. In addition, broker dealers send these messages to their top clients, which would mean that forcing them to disclose these messages would be similar to asking brokers to publicly disseminate their client lists. As a result, we recommend that such institutional IOIs be excluded from the Proposal and any new Rule 606.

The second type of IOIs sent by routing brokers are actually called "conditional orders" by most venues.³⁴ Conditional orders are not actually orders but function like IOIs in that they define

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ATSs offer conditional order functionality to their members. See, e.g., Liquidnet ATS Form ATS available at: http://www.liquidnet.com/uploads/Form_ATS_Negotiation_11march2016.pdf ("These orders are considered "conditional" since the Member or customer will commit the order only prior to execution with a matched

parameters for sending a firm order based on certain market conditions, except for two major differences: First, these messages are sent to venues that, for the most part, only transmit the message to a counterparty that has previously indicated that they are likely to be on the other side of the trade. Such messages should be reported on differently than messages broadcast to counterparties that have not previously entered a contra side interest. Second, it can be argued that such messages are not IOIs at all, since they require subsequent actions by both parties to consummate a trade. Venues that offer conditional orders typically send messages to their client, whether SORs or trader, when a matching conditional or firm order is received and request a response within a defined time period. This could be any combination of firm orders (either IOC or for the duration of the time period), a negotiated response with parameters that define the transaction size, or a cancellation message. If the Commission is contemplating requiring aggregated disclosures of conditional orders as part of the IOI requirement, both the definitions of such messages and the requirements must be specific. Our suggestion would be to exclude these conditional orders from the Proposal and any new Rule 606, unless the Commission chooses to require statistics descriptive of all potential message combinations, which would require detailed evaluation of all the venues that support that type of message.

Answers to questions posed in the Proposal:

- 1) Do commenters believe Rule 606 should be expanded to include institutional orders? Why or why not? Should the Commission consider an alternative approach? Why or why not?

Answer: Yes, but the key point is that Rule 606 should include all order routing from all brokers, subject to a de-minimis exemption only. The alternative we suggest is to include all orders, but to categorize them based on the characteristics of the order, rather than either the firm sending them or an arbitrary size of the order.

- 2) Do commenters believe it is useful or necessary to define an institutional order? Do commenters believe that the proposed definition of institutional order should include securities other than NMS stocks? For example, should NMS securities that are options contracts be included? Why or why not? Should non-NMS securities, such as securities traded only in the OTC market, be included? Why or why not?

contra."); BIDS Trading ATS at: <http://www.bidstrading.com/solutions/solutions-overview/> ("Conditional orders – allow traders to search for liquidity in multiple venues. If volume becomes available within the BIDS ATS, the trader’s order will automatically be invited to firm up to trade, allowing the trader to cancel duplicate orders in other venues so the same order is not filled more than once."); PDQ ATS Form ATS available at: http://www.pdqats.com/wp-content/uploads/2015/10/PDQ-FORM-ATS-FILING_10_09_15-website1.pdf ("A Conditional order sent to PDQ is invited to firm up when PDQ receives and executable contra side liquidity-seeking order. ... A Conditional order must be replaced with a firm (Market, Limit, Pegged) order prior to execution.").

Answer: No. It is much more important to define orders based on the expected handling of the order, which is defined better by the amount of discretion given to the broker, and by “held” vs. “not held” as the most important criteria. We believe that all NMS stocks as well as listed option contracts that are based on NMS stocks should be included. It should be noted, however, that options have a different market structure than equities: All trading is on exchange, there are far higher rates of quote updates, and there is a widespread use of price improvement auctions. Additionally, size bucket categorization is clearly different for options as contracts have a multiplier of 100 shares in most cases.

OTC securities, while sometimes purchased or sold by institutional investors, are most often traded via a dealer market. As a result, routing is most often determined by either agreements to provide levels of execution quality or based on the prevailing quotes in the dealer systems. There is no obvious reason to exclude those securities beyond cost, but the difference in market structure and access to comparative quote and trade data will necessitate adjustments to order categorization and the calculation of statistics.

- 3) Answered above
- 4) Answered above
- 5) Answered above

- 6) Should the definition of institutional order reflect a different threshold, such as order size or market value, for various types of NMS stocks, such as common stock and exchange-traded products? If so, what thresholds are appropriate and for which NMS stocks? If possible, please provide data and analysis to support your view.

Answer: No. We do not believe that the type of orders should be related in any way to the size of an order, but do suggest that the disclosures, within each category, should be broken out by order size.

- 7) Answered above
- 8) Answered above, since the type of order (“held,” “not held”) is already captured.
- 9) Answered above

- 10) Instead of defining institutional order, do commenters believe that there are alternative approaches that the Commission should consider in structuring order handling disclosures for large orders? If so, please explain the approach in detail, including the benefits and costs of the approach.

Answer: As explained above, IHS Markit proposes using “held” and “not held” as the primary determinant of categorizing orders and to further use order type information, client limit price, and order size to group the statistics to be provided. It is important to clarify that all of these elements are readily available in the systems of broker-dealers, so should be relatively inexpensive to implement. Other methods of categorization, such as the definitions of retail investors as “natural born persons” as is used in the retail programs of exchanges and the upcoming Tick Size Pilot,³⁵ are much more expensive to implement, as that requires research of the details behind each individual account in order to make the attestations required.

³⁵ See note 22 supra.

11) Do commenters believe that a symbol is a necessary element to include in the definition of actionable IOI? Is the side (buy or sell) a necessary element to include in the definition of actionable IOI? Should price be an element in the definition of actionable IOI or is it assumed that it would be equal to or better than the applicable national best bid or offer? Is size a necessary element to define an actionable IOI? Should an actionable IOI be defined to require only a subset of these elements, or should any of the proposed elements be modified? If so, which elements and why? Are there alternative definitions that would capture the activity of a broker-dealer communicating to external liquidity providers that should be included as part of the required disclosure? Are there other elements or factors that the Commission should consider in the definition of actionable IOI? Should any of the proposed elements be omitted? Why or why not?

Answer: For the purpose of routing brokers determining whether to send an order to a non-displayed venue, an IOI should have, at a minimum, a symbol. The addition of the side of the market and a size or size range would, of course, likely improve the resulting fill rate of orders sent to the venues sending the IOI, but that would be borne out in the statistics that we have proposed for inclusion in Rule 606. As a result, there is no need to categorize the types of IOIs being sent to routing brokers under Rule 606. It is worth noting, that there are venues that only include the symbol in the IOIs they send to routing brokers to tell them that there is liquidity in their venue, and those should also be included.

12) Do commenters believe that an IOI can be “actionable” even if a subset of the elements (symbol, side, price, and size) is conveyed implicitly? Should broker-dealers be required to disclose information about actionable IOIs where one, some, or all of the elements are conveyed implicitly? Why or why not? Would broker-dealers be able to program automated systems to identify as actionable IOIs instances in which information is being conveyed implicitly, such as through a course of dealing between a liquidity provider and the broker-dealer?

Answer: It is important to remember the context of Rule 606 as it pertains to IOIs, which is to understand how routing behavior of broker-dealers is impacted by IOIs and, we have proposed, how the use of IOIs impacts best execution statistics such as fill rates and price improvement. Considering that, any IOI which conveys a symbol TO a routing broker or brokers or any routing broker sending IOIs which include the symbol should disclose those messages. If more clarity on this behavior is desired, the Commission could mandate that IOIs with Symbol, Symbol plus Side, and Symbol with Side plus Size information be disclosed separately.

13) Do commenters believe there are other types of indications of interest that should be required to be disclosed? If so, what types and how would they be defined?

Answer: Not as part of Rule 606. A potential marginal improvement to Rule 605, would be to require disclosure of execution quality on orders that were received by institutional clients in response to IOIs sent by the trading center. This type of disclosure, however, would be relatively expensive to implement since broker dealers rarely link orders to the IOIs they send out. In addition, both Rules 605 and 606 could be expanded to require disclosures that show statistics from the perspective of the routing broker and the market center of conditional orders. As stated above, such messages function more like IOIs, but have specific nuances and interactions that would need to be researched and explicitly clarified before they are added to Rule 606.

14) Do commenters believe actionable IOIs are linked to specific orders at the broker-dealer, such that when the external liquidity provider responds to an actionable IOI with a contra-side order, the broker-dealer will be able to match both sides of the trade?

Answer: As stated above, the majority broker to broker IOIs ELPs send IOIs to routers (at broker dealers including exchange affiliated brokers) in order to attract flow that comes from that router. In those cases, the broker-dealer router should know that the order they sent was pursuant to an IOI. In the cases where an ELP responds to an IOI as part of an auction or similar process run by a broker dealer, the broker initiating the IOI can usually link the order to the IOI. In the case of institutional IOIs, however, it is not likely that brokers can definitively link orders received to the IOI sent out without major system changes. Lastly, if the Commission's intent is to also report on conditional orders (which are very similar to IOIs) sent by routers to venues that accept them, it should be possible to associate all subsequent orders with those messages as they are designed to do so by the venues.

15) Do commenters believe that there are alternative approaches to defining an actionable IOI? If so, please explain each approach in detail, including the benefits and costs of the approach.

Answer: It would be possible to define conditional orders as IOIs.

16) Do commenters believe the proposed scope of the institutional order handling report is practicable and appropriate? Why or why not? Please explain and provide data, if possible

Answer: For the most part, yes. The "on demand" report seems to be a similar template to the one that has been vetted by multiple industry groups.³⁶ With the sole exception that brokers should be allowed to estimate fees and rebates instead of requiring precision,³⁷ the report can be created from a relatively standard data extract that should be available from broker dealer systems. We also suggest that the report be for the previous quarter, not six months, as clients should be having their best execution meetings that frequently and many brokers and reporting systems archive trades from previous quarters.

17) Do commenters believe that it is appropriate to view the customer placing the order with the broker-dealer, whether the account holder or an investment adviser or other fiduciary, as the "customer" for purposes of the proposed amendments to Rule 606? Should entities other than the customer placing the order with the broker-dealer be entitled to receive the report? For example, if an investment adviser represents multiple underlying clients, should each underlying client be entitled to receive the report? Please explain.

Answer: The report should match precisely to the orders received by the broker dealer, regardless of who the end customer is. In the case that an allocation to different beneficial owners is done at the end of the trading day, the broker dealer would do so via a different system than the system which handles the routing. As a result, it would be quite costly to track orders broken down by such allocations.

³⁶ See e.g., Proposal at 49434, fn 5 (referring to the template proposed by the Investment Company Institute, the Managed Funds Association and SIFMA in their letter dated October 23, 2014).

³⁷ Rebates and fees are determined based on volume tiers that are not finalized until the entire month of trading is complete for each venue. That final rate is not readily accessible to the systems that will feed whatever reporting system is used to create this report.

18) Do commenters believe that broker-dealers should be required to provide the customer-specific report on institutional order handling in the proposed format? Why or why not? Do commenters believe broker-dealers should be required to provide the report in a structured XML format? Would such a format facilitate comparison of the data across broker-dealers? If not, why not? Do commenters believe broker-dealers should be required to also provide the report in an instantly readable PDF format? If not, why not? Are there other formats or alternative methods to provide the customer-specific reports that the Commission should consider? If so, please explain and provide data.

Answer: The delivery of a standardized format on request makes sense as it simplifies the creation of such reports instead of requiring multiple formats. The idea of requiring XML format, however, seems to be overly prescriptive, when the most likely use case of the report is to use it to create a spreadsheet for subsequent analysis. As a result, we would propose that, in addition to a PDF format, that a comma separated value file (CSV) or spreadsheet file be considered valid alternatives.

19) Do commenters believe that seven business days is a reasonable amount of time for a broker-dealer to respond to a customer request for institutional order handling information? If not, what would be a reasonable amount of time?

Answer: If the report was for one day to one week of data, certainly, but for six months of data, it could be somewhat difficult, particularly since the same client could ask every day for the report. Our suggestion would be to propose that broker dealers have seven days to produce a monthly report, or fourteen days to produce a quarterly or longer report. We would anticipate, however, that competitive forces, if these reports prove important to clients, will result in shorter time periods for delivery.

20) The Commission notes that Rule 606(b)(2) requires that broker-dealers notify their customers annually, in writing, of the availability of a report on the routing of retail orders. Should the Commission include a similar requirement for a report on the handling of institutional orders?

Answer: No. The rationale for the Rule 606(b)(2) requirement is to direct customers to the appropriate website. This is important for Rule 606 and the proposed new public disclosures, but not for the "on demand" report, which is produced for individual customers and is not available publically.

21) Do commenters believe that the rule should include a de minimis exemption for broker-dealers that receive, in the aggregate, less than a certain threshold number or dollar value of institutional orders? Why or why not? If so, what would be the appropriate threshold number or dollar value of institutional orders a broker-dealer should need to receive from all customers in the aggregate before it would be required to provide customer-specific order handling disclosures to any customer? Please explain and provide data, if possible.

Answer: Yes, and the requirement to produce these reports on demand should probably be limited to QPAMs in order to reduce the administrative burden. To the extent that producing these reports becomes simple to do and the reports are considered important to clients, competitive forces will ensure that they become universally available.

22) Answered above

23) Do commenters believe that the required disclosure regarding the handling of an institutional order should include the handling of all smaller (child) orders derived from the institutional order? Why or why not?

Answer: The report is designed to show how orders are handled, so all of the subsequent routing needs to be captured in the report. Those child orders do not need to be represented as individual units of aggregation, but the activity needs to be accounted for. Our proposal to categorize all orders based on the parent order received, but then to aggregate all routed orders by destination, marketability, IOC or not, and fill rates would include the child orders in this manner. Note that this should apply to both Rule 606 and the “on demand” report.

24) Do commenters believe that the rule should cover institutional orders placed both directly and indirectly with a broker-dealer? Should the rule only cover orders placed directly with a broker-dealer? Why or why not?

Answer: broker dealers should report on how they handle all orders they are sent, but should only be required to provide such reports to the counterparty that sends them the order. Situations where a broker intermediates between the end client and another broker dealer should be resolved by requiring each broker dealer to report to their own client. In cases where an advisor or asset manager routes to a broker dealer on behalf of multiple clients, the advisor or manager should be responsible for handling communication with their clients.

25) Do commenters believe that the rule should specify the number of times a broker dealer is required by the rule to respond to a customer request for a report on the handling of its institutional orders? Why or why not? If yes, what should the number of times be? Alternatively, do commenters believe that broker-dealers should be required to provide customers with institutional orders ongoing access to order handling reports through a secure portal on their websites? Why or why not? How would this impact broker-dealers' compliance costs, or the accessibility to customers of order handling reports? Please explain.

Answer: We do not believe that Rule 606 needs to be so prescriptive as to mandate the number of times clients can request reports or to mandate delivery via a web portal. If the report was quarterly, brokers could easily schedule those reports to be created and delivered by email or another mutually agreeable method with their clients.

26) As noted above, the proposed rule would not preclude customers from making standing requests for their broker-dealers to provide them order handling reports on a specified regular basis. Do commenters believe broker-dealers should be required to automatically provide reports to customers with respect to their institutional orders, without the customer making a specific request? If so, how frequently should this information be provided (e.g., every month, three months, six months, annually)? Please explain. To what extent would automatically providing reports facilitate the dissemination of order handling information to customers that might not otherwise take the time to request it? On the other hand, to what extent would automatically providing reports require order handling information to be provided to customers that they might not want or use? If order handling reports are required to be automatically provided, should customers be permitted to opt out from receiving certain information or reports in their entirety? Should a requirement to automatically provide reports exclude customers with only a de minimis number of institutional orders? If so, what would be an appropriate de minimis level? How would a requirement to automatically provide customers with reports rather than provide them upon request change the costs for broker-dealers? Considering that broker-dealers that handle institutional orders would need to be prepared to

provide reports to customers on request, and therefore would need to develop the technology to produce such reports in an automated manner, what would be the incremental costs for them to run the 71 reports for all customers on a periodic basis? Would there be any benefits from broker-dealers running the reports for all customers on a periodic basis? Would the broker-dealer experience lower costs from manually providing the reports solely upon request? Would other costs be involved? Please explain and provide data.

Answer: As explained above, brokers should be able to customize their reporting based on the needs of their clients. For example, if clients opt for quarterly reporting, that should be sufficient, but if a client does not need or want the reporting, brokers should not have to provide them. There will be clients that want actual raw data instead of these reports and also clients who focus entirely on trading results instead of analysing the details of broker decision-making. In both cases, requiring brokers to create those reports would increase expenses for no discernible benefit.

27) Answered above.

28) Do commenters believe that aggregated information, broken down by calendar month, is a useful format for the customer? Should the data be required to be provided in a more granular or broader manner? For example, would it be more useful for institutional customers to receive data about the handling of their institutional orders on a stock-by-stock basis rather than aggregated? Please provide support for your arguments and describe any costs and benefits associated with an alternative format

Answer: Yes, aggregated information is sufficient for the purpose of Rule 606, but it must be stressed that brokers could opt to compete by providing more detailed information, particularly brokers that specialize in handling particular types of stocks (such as exchange traded funds (“**ETFs**”) or sectors. Thus, once the template is established, we would expect that the market would continue to innovate and provide various aggregations of different stock groups or individual stocks.

29) Does aggregating of all of a customer’s institutional orders into a single report adequately prevent sensitive, proprietary information from being revealed? If not, why not? Could aggregated institutional order disclosures allow a customer or competitors to reverse engineer a broker-dealer’s order handling techniques?

Answer: Yes, aggregating information should prevent any secret routing strategies from being divulged. If individual stock level information was required, however, it is not entirely clear that sensitive information could be protected, which is another reason for keeping the regulatory requirement focused on aggregates.

30) As noted above, the Commission preliminarily believes that, if a customer places an institutional order that identifies the particular account for which the order was submitted, the broker-dealer would be well-positioned to provide the customer, upon request, a report broken down by account. Do commenters believe that the rule should require a broker-dealer to provide, upon request, a report broken down by account, if the customer identifies the

particular account for which the order was submitted? Why or why not? Please discuss the benefits and costs with such an account-by-account approach.

Answer: No, we do not believe that an account level report should be required, since often accounts are assigned after the order is entered via an allocation process. In addition, it would require brokers, when using a third party to generate the reports, to transmit client account numbers, which are more sensitive and confidential than the name of the institutional manager. It is unlikely that different accounts are handled differently by broker dealers as well. Order handling varies more by the portfolio strategy and the stock than by the beneficial owner of the account.

31) Do commenters believe that disclosure by venues and order routing strategies would be useful to customers placing institutional orders? Are there other ways to categorize the disclosures than by venue and order routing strategies that would be more useful to institutional customers? If so, please explain. Should the Commission consider other methods in providing customer-specific institutional order handling reports? If so, please explain the alternative approach and provide data, if possible.

Answer: Yes and no. Order routing disclosure by venue is critical to understanding the routing process, but the forced categorization by level of aggression, while a good idea in the abstract, conflates the multiple levels at which brokers characterize strategies. Not held orders can be sent by clients to a sales trader (called “high touch” by the industry), to an algorithm or program trading strategy, to a SOR, or directed to a particular trading center. Both the orders sent to sales traders and those sent to algorithms can send combinations of passive and aggressive orders at varying times throughout the day. Thus, for the category of “not held” orders, where brokers have discretion over the time to execute the order, it is virtually meaningless to characterize the orders based on level of aggression. Such orders can be characterized based on the type of algorithm and strategy utilized to be “scheduled” (such as VWAP or participation strategies) or opportunistic (such as Implementation Shortfall or more esoteric strategies), but we do not believe that such a breakdown would add value. If the resulting orders sent on behalf of this category are fully disclosed, clients will be able to determine the aggressiveness of the routing broker based on the percentage of orders and executions that result from marketable vs non-marketable routed orders. Rather than a prescriptive requirement, if the Commission adopts the template for Rule 606 proposed in this letter, the market will likely exert pressure on routing brokers to disclose this information broken out by their own individual strategies to their clients.

32) Do commenters believe that disclosure of order routing strategies categorized by passive, neutral, and aggressive would be useful? Should any of these proposed categories be modified or deleted? Are there other categories of strategies that would be more meaningful? Please explain and provide data to support your arguments.

Answer: No, for the reasons stated above. Brokers all have multiple algorithms and most of those individual algorithms have parameters which allow clients to input a level of aggressiveness. However, those parameters do not necessarily imply an accurate categorization. For example, an “aggressive” participation algorithm with a participation rate of 5% is likely to be much more passive, than a “passive” participation algorithm with a participation rate of 15%. Considering that there are quite literally over a thousand combinations of algorithms and parameters offered to large institutional investors, it would be virtually impossible to characterize such strategies accurately. If, however, the Commission adopted the recommendation in this letter to characterize routing behavior by the 3 levels of discretion under “not held” and further required the

data to be grouped into the size buckets of routed orders and the marketability of those orders, a clear picture would emerge of the aggression of routing brokers. We believe that would be much more meaningful than attempting to characterize strategies between brokers.

33) Answered above

34) Answered above

35) Do commenters agree that potential inconsistencies of categorization will only occur at the margins and grouping order routing strategies by the three broad categories would still allow for meaningful comparison of order handling practices across broker-dealers?

Answer: No. Categorization of strategies is not going to produce meaningful results, but our suggested categorization of the routed orders into marketable (which means aggressive) and non-marketable and IOC (typically more aggressive) or not would add substantial value. If the Commission wanted to be more granular about understanding the level of aggression of routing brokers, it could also undertake two other levels of classification. First, the Commission could require that orders entered with a “post only” or “add only” instruction be aggregated into separate subcategories of both marketable and non-marketable orders. These orders, which will not remove liquidity (and pay fees) from “maker taker” venues are the most passive order types available. Second, the Proposal could be amended to group marketable orders into two subcategories: “at the market” and “thru the market.” “At the market” is defined as orders entered at the NBBO, which might result in some of the order being non-marketable, if there is insufficient quantity available at the NBBO. “Thru the market” is defined as orders priced more aggressively than the NBBO.

36) Do commenters believe that broker-dealers would be able to produce their order handling statistics in such a manner to favor one strategy over another in an effort to enhance the perception of the services provided? If so, should modifications or additions be made to address this? Further, please explain and provide data, if possible.

Answer: We will not speculate on this, but will point out that creating statistics that are not comparable between brokers is inviting manipulative behavior.

37) Answered above

38) Answered above

39) Answered above

40) Answered above

41) Would disclosing information about the use of the three order routing strategies potentially reveal broker-dealers’ sensitive proprietary information? Please be specific about what information and the impact of disclosure.

Answer: The recommendations made in this letter for information grouped by the type of order received with full disclosure of aggregated routing statistics by venue and type of order sent, would not disclose any sensitive proprietary information. Some may claim that revealing how routers use inbound IOIs to make decisions is proprietary, but disclosing aggregate information should not compromise any secrets as this practice is widespread.

42) Under the proposal, broker-dealers would be required to document the specific methodologies they rely upon for making assignments of institutional orders to the three order routing strategies. Should these methodologies be made available, in the normal course or upon request, to customers and/or the public? Would disclosure of this information be useful to

customers? When a broker-dealer changes its methodology, should it be required to notify its customers or the public of the change, and/or should it be required to restate prior reports “as if” such new methodology had been in place? Would such restatements be useful to customers or potential customers? If so, how? Should such restatements be required for certain material changes in methodology? If so, for which prior 81 reports should restatements be made (e.g., the most recently provided report)? Even if the broker dealer’s methodology is not provided to customers or the public, should they be notified if and when such methodology changes? Why or why not? Please explain. Would transparency regarding the methodologies create risks with respect to sensitive proprietary information of the broker dealers? If yes, please identify the specific information linked to the risk.

Answer: This question points out another set of reasons to abandon the concept of grouping routed orders by an arbitrary strategy. It would indeed be very costly for brokers to both categorize and then potentially change the category of their suites of algorithms and strategies. High touch trading would be even more expensive to document. Consider a trading desk that handles orders with sales traders. Each day, the percentage of orders crossed at midpoint, posted as passive orders, or traded aggressively could change despite the orders being labelled the same. How would brokers possibly categorize such trades in this proposed regulation? In order to measure each strategy and change its categorization based on observed results to avoid regulatory actions, all firms would need to implement entirely new monitoring systems and new order data structures. This would be quite expensive to implement.

43) Answered above.

44) Do commenters believe that disclosing the total number shares sent to a broker dealer would be useful to customers placing institutional orders? Why or why not?

Answer: Yes, it is important to understand the ratio of routed orders to received orders for all routing brokers. It might be particularly interesting to clients whose orders get routed by exchange broker dealers or other broker dealers that route on behalf of the original client’s broker dealer. This is why our proposal is to categorize the public Rule 606 reporting for all brokers based on the orders received, including the quantity of those orders, and have all subsequent routed and shares disclosed along with both fill rates and executed quantities.

45) Answered above

46) Do commenters believe that disclosure of the total number of shares executed by the broker-dealer as principal would be useful to customers for purposes of evaluating conflicts of interest? Why or why not?

Answer: For “not held” orders, it would be useful to clients to understand what percentage of shares are executed as principal as part of a complete evaluation of the order handling process. While it is possible that principal executions could create conflict of interest issues, it is also possible that the additional liquidity provided by a market making operation could add value without a conflict of interest. Proper disclosure of principal trading, along with statistical analysis of the execution quality of all routed shares, such as suggested in this letter, would be a good start for clients to evaluate this. For “held” orders, however, where the broker dealer has full responsibility for the execution quality of the order and clearly established execution quality benchmarks, the information is less important. Most marketable held orders are executed either

as principal or on a riskless principal basis by market makers that report via Rule 605. If the exemptions under Rule 605 were eliminated, then clients would have a complete picture of the execution quality of those orders.

47) Do commenters believe that the institutional order handling report should disclose the total number of institutional orders exposed through an actionable IOI? Is this data useful for customers to evaluate their broker-dealers' institutional order handling practices? Why or why not? Would such disclosure guide customers in better understanding the potential of information leakage of their institutional orders?

Answer: For "not held" orders, where institutional brokers have discretion to work orders over the day or a defined time period, yes. One method of working such orders is to use institutional IOIs to try and attract the other side of the trade. It would be useful to clients evaluating order handling processes to know about such IOIs. It would be more useful; however, if execution quality results were combined with metrics of institutional IOIs. Such statistics would be the only way to assess information leakage in context, although data on how often IOIs result in finding liquidity would also be useful. For "not held" orders without time discretion, however, we have commented above how IOIs are more often *received* by the SORs. In that situation, statistics showing the routing efficiency of the SORs and how fill rates and execution quality correlate to the receipt of those IOIs, would be useful.

48) Do commenters believe that broker-dealers should disclose the venues to which it sends actionable IOIs? Would this information help customers understand how financial incentives or business relationships might impact their orders? Would this information help customers evaluate the risk of information leakage?

Answer: As stated above, when routing brokers send actionable IOIs on behalf of "not held" orders, they are usually send to institutional clients and not to broker dealer venues, per se. There could be extremely large lists for the distribution of such IOIs and many recipients, which are institutional asset managers and not broker dealers, might have concerns about having their names disclosed. As a result, we do not think that disclosure of the names of all IOI recipients would be justified or cost effective. On the other hand, if routing brokers send conditional orders, which share characteristics with IOIs, it would be potentially useful to require disclosure of aggregate statistics of those messages per venue that accepts them. In addition, for SOR routing on behalf of "not held" orders that are immediately executable, our proposal is for the disclosure of routing statistics to include data conditional upon the router's receipt of an IOI from all venues which send IOIs to the router should be disclosed. As we stated above, it would be useful for institutional clients to evaluate the effectiveness of order routing pursuant to such IOIs vis-à-vis routing where no IOI was received.

49) Answered above.

50) Do commenters believe that disclosure of the four data points (total shares routed, total shares routed marked immediate or cancel, total shares routed that were further routable, and average order size routed) as proposed in Rule 606(b)(3)(i)(A)-(D) by both venue and strategy is useful? Should the four data points be defined? Are there other factors or order life cycle audit trail information that should be included in order routing information? Should some of the proposed factors be modified or eliminated? If so, which one(s) and why?

Answer: While this was answered above, we want to stress that all four data points, along with basic execution quality statistics such as fill rates, effective spreads and price improvement should be disclosed for all venues. We would further emphasize that this data should be disclosed within the “not held” and “held” categories we have suggested and that such data points should be grouped into standardized order size groups, defined for Rule 606 by the size of the order received and not by the size of the orders actually routed.

51) Do commenters believe it is useful to customers to know the total shares marked IOC and that were routed? Would the cancellation rate of orders be useful to customers placing institutional orders? Are there other order types for which disclosure should be required? If so, which types and why? Should broker-dealers be required to disclose all order types used to execute customer orders? Please explain.

Answer: While most of this was answered above, we do not believe it would be cost effective to require routing statistics on each individual order type at each venue utilized. There are hundreds of individual order types and parameters for those order types and these are not fully standardized. As a result, it would be quite complex to try and report on each permutation of order type at each venue on behalf of each customer. It is worth noting, however, that we do believe that market centers, under a new Rule 605, should be required to provide relevant statistics on behalf of each major type of order separately. In particular, disclosure which differentiates between fully displayed, and non-displayed pegged orders, and between routable and non-routable orders would provide value.

52) Do commenters believe that orders that are not only routable, but are in fact routed on should also be required to be disclosed? Would such re-routing information be useful to customers in determining whether their broker-dealers are in control of the routing of their orders or are relinquishing control of order routing to another entity? Do commenters believe that such re-routing information is retrievable for broker-dealers? Why or why not?

Answer. Yes, it is important to have full disclosure of each step of the routing process, but the best way to achieve this is to have all routing brokers required to disclose under Rule 606. This would include the affiliated routing brokers of stocks exchanges, which route billions of shares each month not disclosed under Rule 606 today. The combination of requiring broker dealers to differentiate between routed orders that were further re-routable, the venues that such orders were sent to and the disclosures of those venues of their routing would allow investors to have a relatively complete view of the routing process. If new Rule 606 were augmented by changes to Rule 605 that eliminated all exemptions and showed the execution quality of all venues on behalf of all orders, it would provide actionable information for investors.

53) Answered above.

54) Answered above.

55) Answered above.

56) Would disclosures related to execution fees and rebates be useful to institutional customers? Would this information support an evaluation of a broker-dealer’s potential economic incentives and/or conflicts of interest to route and/or execute orders at a particular venue? Please provide support for your arguments.

Answer: Disclosure of fees and rebates would be useful information but we want to emphasize two points: First, new Rule 606 should allow for estimation of fees and rebates based on what routing firms believe will be their volumes, rather than force those disclosures to be precise. This would allow reporting based upon one rate per venue per liquidity flag for each day during the month instead of waiting for the receipt of the actual bill or statement from the venue, which can be delayed. Second, the fee and rebate disclosure is only useful within the context of the basic execution quality statistics for routed orders including fill rates, effective spread, price improvement and realized spread information.

57) Do commenters believe that the total number and percentage of shares executed at the midpoint indicate higher quality executions? Would this information be useful to customers interested in examining their institutional order execution quality? Please explain.

Answer: No. While having good estimates of how much midpoint liquidity might be available at each venue is important for routing brokers, the only way to evaluate the value provided by routing brokers is within the context of the overall execution quality provided. Consider a simple example where a client sends an order to an SOR to buy 5000 shares of a stock aggressively and there are 6000 shares displayed on a few stock exchanges. In that example, if a routing broker sent midpoint orders to a variety of venues before attempting to access the displayed liquidity, the results could be poor. The routing broker might receive several hundred shares at the midpoint, but in the time it takes to receive those shares, some or all of the 6000 offered shares displayed could vanish due to information leakage. Thus, we believe that, from a routing perspective, it is much more important to document overall execution quality than any particular statistic, such as the ability to find midpoint executions.

58) Do commenters believe that information on the shares executed on the side of the spread favorable or less favorable to the institutional order would be useful to institutional customers in analyzing their broker-dealer's order handling practices? What other order execution data, if any, would be useful to customers? Would information on shares executed against displayed or undisplayed liquidity be useful? Should any of the proposed requirements be modified or eliminated? If so, which ones and why? Please provide support for your arguments.

Answer: We believe that disclosure of "side of spread" statistics on behalf of "not held" institutional orders with time discretion is important to understanding how brokers handle such orders (orders without time discretion tend to be placed on the side of the spread based on the client limit price). We would caution, however, that positive "spread capture" is not necessarily indicative of lower costs for institutional clients, since passive orders could result in higher opportunity costs when the price moves away from the order. Thus, we would recommend that all of these statistics be provided within the context of aggregated execution quality statistics in order to provide useful information. In the case of non-marketable orders, the only true way to evaluate their efficacy is to have statistics showing fill rates relative to possible fill rates or to evaluate opportunity cost of unfilled shares. That would require the additional metrics we suggested in this letter, and may be required by MiFID II.

59) Do commenters believe that the proposed data points outlined above would provide customers with meaningful information? Would the proposed disclosures allow customers to better assess the execution quality of their broker-dealer? Would the report further permit customers to compare execution quality among multiple broker-dealers across the market? Would the report, as proposed, allow customers to more easily monitor for best execution?

Answer: We have provided a template above of the categorization and statistics for Rule 606 to help investors monitor for best execution, but want to stress that the public disclosures required

are only a starting point. If the categorization and statistics for routing brokers suggested in this letter were required, it would effectively create a template for brokers to use in their own best execution processes at a more granular level. This is precisely what occurred with Rule 605 for orders covered under that Rule and we attribute much of the observed improvement in price improvement metrics to the competition facilitated by such analysis.³⁸

60) The Commission proposes to define “orders providing liquidity.” Do commenters believe that this term should be defined? Is the proposed definition useful to broker-dealers in categorizing an order for reporting purposes? Should it be modified in any way, including adding additional criteria? Why or why not?

Answer: As we have answered above, orders received as well as orders routed should be defined into categories of marketability based on price (which correlate non-marketable to providing liquidity and marketable to removing liquidity). We have also suggested that, if the Commission is interested in specifically documenting the reasons behind the fees or rebates charged to brokers from venues, Rule 606 could require that orders routed with the “add only” or “post only” designation be segregated as well. We would also suggest that the observation made above about spread capture applies to the notion of “providing liquidity”, namely that there is an opportunity cost to doing so. Thus, our suggestion of characterizing routing based on the marketability of the routed orders can provide useful information, but only as a way to focus clients on subsequent analysis of the opportunity cost. That subsequent analysis could start by considering high level execution quality statistics, but could well lead to more in depth analysis being required.

61) Answered above.

62) Answered above.

63) Do commenters believe that the average time between order entry and execution or cancellation (measured in milliseconds) for orders providing liquidity will be an appropriate measure of whether the broker-dealer is implementing a customer’s order instructions? If not, why not? Do commenters believe that the “average” is the appropriate measure to gauge the amount of time an order is resting on the book? What are alternative data points or measurements that would achieve the same goal? Separately, is milliseconds an appropriate measure? If not, what would be more appropriate? Are there other time measures and/or data that would be useful to institutional customers in evaluating whether the broker dealer is implementing their order instructions? If so, please explain and provide data to support your argument.

Answer: No. For the “not held” working orders, such a metric is not very meaningful as it could vary from sub-second to minutes or even hours depending on the nature of the child orders sent by either a sales trader or algorithm. In addition to client instructions, the duration of resting orders sent to any particular venue is related to the volatility of the stock being traded, the reported trades for that stock, the nature of the algorithm’s trade scheduling, and the fill rates of orders sent to other venues. If the goal is to understand the trading characteristics of venues, then Rule 605 should be re-written to include statistics at a granular number of milliseconds from order receipt time to either fill or cancel time. It would, however, be important to calculate these

³⁸ See, e.g., Bill Alpert: “Who Makes Money on Your Stock Trades,” Barron’s February 28, 2015 available at: <http://www.barrons.com/articles/exclusive-who-makes-money-on-your-stock-trades-1425103695> (discussing the industry’s use of the ratio of effective spread over quoted spread (E/Q)).

statistics on behalf of “held” orders separately from “not held” orders, since there is a tendency for “held” orders to have a much longer duration at a particular price level.

64) Do commenters believe that disclosing the average net execution rebate or fee for shares of orders providing liquidity at each venue and by order routing strategy would be useful in assessing potential conflicts of interest broker-dealers may face with regard to routing venues and the order routing strategies that use those venues?

Answer: Yes, but as answered above, we are concerned that disclosing rebates and fees outside of the context of execution quality metrics may lead to misleading data that will result in the wrong conclusions being reached.

65) Do commenters believe that specifying the average net execution fee or rebate to four decimal places is appropriate? If not, to what level of precision should the fee or rebate be specified? Please explain and provide data for your argument.

Answer: Yes, for all stocks above \$1. The convention and the pricing of rebates and fees for stocks above \$1 has been to calculate such fees as 1/100th of the minimum price variation of \$0.01. This, which is 4 decimal places has also been the convention for characterizing orders as being price improved. For stocks below \$1, however, since the minimum price variation is \$0.0001, six decimal places would be required to maintain the same proportion of precision.

66) Answered above.

67) Answered above.

68) Answered above.

69) Answered above.

70) Answered above.

71) Do commenters believe that aggregated institutional order handling information being publicly disclosed would be useful to institutional customers and other market participants? Who would it be useful to and in what ways?

Answer: Yes, as we stated above, all investors would benefit from a uniform reporting regime where all routing brokers disclosed the venues and types of orders they route on behalf of both “not held” and “held” orders.

72) Do commenters believe that the aggregated institutional order handling information proposed by Rule 606(c) should be disclosed for both retail and institutional orders, rather than only for institutional orders as proposed? Why or why not? Please provide support for your argument.

Answer: Yes. As stated above, there are benefits to both retail and institutional investors for a coherent disclosure regime based upon the type of orders handled by routing brokers. The approach we have suggested in this letter would help all types of investors and simplify the structure. It also is consistent with trends in the industry towards automation which has blurred the lines between retail and institutional investors.

73) Answered above.

74) Do commenters believe that broker-dealers should be required to provide the public aggregated institutional order handling report in the proposed format? Why or why not? Do commenters believe that providing the report in a structured XML format will facilitate comparison of the data across broker-dealers? If not, why not? Do commenters believe that a structured XML format would be useful to customers and other market participants, and if so how? What incremental costs or savings would broker-dealers incur in providing the report in a structured XML format? Should the Commission consider alternative formats? If so, please explain the alternative formats and associated benefits and costs. Do commenters believe that it would be useful for broker-dealers to also provide the report in an instantly readable PDF format? If not, why not? Are there other formats that would be more appropriate? If so, please explain the alternative formats and benefits and costs.

Answer: We do not have a strong opinion on particular formats except to state that whatever is selected should be both standardized for automated analysis, but also to be human readable.

75) Do commenters believe that the rule should include a de minimis exemption for broker-dealers that receive, in the aggregate, less than a certain threshold number or dollar value of institutional orders? Why or why not? If so, what would be the appropriate threshold number or dollar value of institutional orders a broker dealer should need to receive from all customers in the aggregate before it would be required to provide the public order handling reports? Please explain. Separately, are there alternative approaches to reduce the compliance costs on broker-dealers with few institutional customers? Please provide data to support your arguments.

Answer: Perhaps, but the number should be limited to a very small number of trades per month, perhaps for brokers that only handle orders as a very small part of their business. The goal of the process is to have relatively complete data on market wide routing.

76) Regarding broker-dealers with a small number of institutional customers, do commenters believe there is a potential risk of exposing the customer's sensitive, proprietary information in an aggregated report? Should the Commission make any modifications to the proposed disclosures or eliminate any or all of the proposed requirements under certain circumstances? If so, what is the appropriate measure? Please provide support for your argument.

Answer: Other than a de minimis exception, there should be no other exemptions to the aggregate statistics suggested in this letter. Our proposal is to have routing statistics be aggregated at the order category level, which means that there is no way to know individual security routing or execution quality information. This should mean that no sensitive information is disclosed unless a broker dealer is known to only trade in one or a very limited number of securities.

77) Answered above.

78) Answered above.

79) Do commenters believe that publicly releasing aggregated institutional order handling reports on a quarterly basis is appropriate? Should the report be publicly disclosed at a different interval, such as monthly? Please explain.

Answer: The public Rule 606 report should be on a monthly basis to synchronize it with the Rule 605 report and also with the internal best execution reviews of routing brokers. There is no reason to delay such reports considering the lack of individual security level information and monthly reporting would introduce consistency to both aspects of the disclosure.

80) Answered above.

81) Answered above.

82) Answered above.

83) Should the Commission require that each quarterly report be publicly available for a designated amount of time? If so, is three years a reasonable amount of time that the reports should be available? Would a shorter or longer period be more appropriate? How, if at all, would a shorter or longer disclosure period impact investors placing orders or broker-dealers? Please explain.

Answer: The public Rule 606 reports should be made available for a time period consistent with other record retention policies. Considering that such reports are at an aggregated basis, there is a very limited storage costs for keeping the data online and there is certain benefit to being able to access historical reporting. Thus, we would recommend that the data be made available through the website of each broker dealer for six years, which would make it consistent with the current requirements for retaining order blotters.³⁹ Such links have been maintained without restriction for the current Rule 606 reports and we have not heard of issues with clients being unable to access the data. We do not necessarily think that the Commission or FINRA should be forced to cover the expense of maintaining a centralized website, however, as long as the data can be found publically. It will also be the case that firms such as IHS Markit will maintain central repositories for clients who are willing to pay for the convenience.

84) Answered above.

85) Answered above.

86) Answered above.

87) Do commenters believe that broker-dealers use Rule 606 reports as a means to assess how their order routing and execution services compare to other firms? Do commenters believe that the reports encourage competition among broker dealers? Why or why not? If so, do investors in turn benefit from such increased competition? Please provide data to support your arguments.

Answer: Not very much. The current Rule 606 reporting is not useful at assessing anything related to execution quality, but is a tool used by competing market centers to gauge their progress and market share with individual routing brokers. Our belief, however, is that the private, internal versions of Rule 605 reporting on execution quality used by routing brokers has been very successful at benefiting clients. All of the large retail routing brokers, that we are aware of, calculate execution quality metrics, from their perspective, to compare and contrast different market centers. This has led to significant improvement in the execution quality statistics for Rule

³⁹ See 17 CFR 242.17a-4(e)(5).

605 covered orders.⁴⁰ In addition, the introduction of voluntary reporting of execution quality metrics, under the auspices of the FIF, has demonstrated improvement in execution quality.⁴¹

88) Answered above.

89) Answered above.

90) Answered above.

91) Answered above.

92) Answered above.

93) Are the venues that are required to be included on retail order routing reports appropriate? Should the requirement cover more or fewer venues than are currently included (i.e., the ten to which the largest number of non-directed orders were routed for execution and any to which five percent or more of non-directed orders were routed)?

'Answer: No. We believe that all venues, with the possible exemption for a very small number of orders, should be included in the report. In that case, it is acceptable to exclude such venues for some period of time when they are on a trial basis, but that should be limited in time.

94) Do commenters believe that requiring broker-dealers to disclose, for each Specified Venue, payment for order flow received, payment from any profit sharing relationship received, transaction fees paid, and transaction rebates received would enable customers placing retail orders to better assess their broker-dealers' management of potential conflicts of interest and quality of routing and execution services? Should the Commission require such information to be disclosed? Is there additional information that a customer could use to better assess their broker-dealer's conflicts of interest and quality of routing and execution services? Would requiring such disclosure affect broker-dealers' routing decisions? Please explain and provide support for your argument

Answer: As stated above, there is value to understanding the economic arrangements that govern routing relationships, but only if those economics are within the context of overall execution quality. Requiring disclosure of payment for order flow, rebates, fees or revenue sharing arrangements without disclosure of statistics such as price improvement/dis-improvement, as well as effective and quoted spreads would fail to accurately represent routing relationships.

95) Answered above.

96) Answered above.

97) Answered above.

98) Answered above.

99) Answered above.

100) Do commenters believe that the four enumerated examples in proposed Rule 606(a)(1)(iv) reflect the types of payment for order flow arrangements and other profit-sharing relationships currently in practice? If not, how should their descriptions be modified and what other types of arrangements, if any, should be specified in the rule text?

⁴⁰ See pg 25 and fn 38 supra.

⁴¹ See Bill Alpert "Fidelity Tops in Price Improvement for Retail Investors," Barron's July 11, 2015 available at: <http://www.barrons.com/articles/fidelity-tops-in-price-improvement-for-retail-investors-1436589662> (discussing FIF's voluntary industry reports on execution quality of participating retail brokers). See also fn 14 supra.

Answer: No. While the enumerated examples exist in some relationships, particularly with regard to the rebate and fees for exchanges and ATSS, most payment for order flow arrangements for retail order flow are based upon the perceived value of the flow and not volume tiers. To be clear, each market maker has their own formula for determining value, but the most important factor is how correlated each order is to subsequent orders from the same retail broker. If, after receiving a buy order in a particular security from a retail broker, the next order in that security is equally likely to be a buy or a sell, then the order flow is considered uncorrelated and more valuable than order flow that tends to be uni-directional. In addition, the mix of the order flow including the percentage of ETFs or stocks trading below \$1, or small cap stocks can impact the market makers perception of value. Despite these considerations, it would be both overly prescriptive and likely anti-competitive to require market makers to disclose their calculation of the value of order flow and impossible for the routing broker to do so, since they do not have the same algorithms at their disposal. Therefore, we would suggest that the payment relationship be characterized as “negotiated volume tiers”, “standard volume tiers for venue” (including venues that have one standard rate for all volumes), and “value based” to represent arrangements that are negotiated with venues based on the venues’ analysis of the order flow provided by the routing broker.

- 101) Answered above.
- 102) Answered above.
- 103) Answered above.
- 104) Answered above.
- 105) Answered above.

106) Do commenters believe that both written and oral terms that may influence a broker-dealer’s order routing decision should be required to be disclosed? Why or why not? Please explain.

Answer: It is reasonable to expect brokers to disclose whether payment arrangements are based on volume tiers, value or are standard at the particular venue, whether the determination was written down or not.

107) Do commenters believe that it continues to be useful for options to be included in disclosures for retail orders pursuant to Rule 606, in light of the fact that the proposal with respect to institutional orders would exclude options?

Answer: Yes. We believe that options routing brokers should have similar disclosure obligations to equity routing brokers. The options market has become increasingly fragmented with 14 exchanges with reported volumes this month⁴² and likely more on the horizon. These exchanges have differing market and fee structures with different payment for order flow mechanisms and they are home to a number of market makers and routing brokers that aggregate order flow from other brokers. Adopting a unified Rule 606, such as that proposed in this letter for equities, would improve transparency in the options market as well.

- 108) Answered above.
- 109) Answered above.

⁴² A list of the current options markets can be found at the Options Clearing Corporation’s website available at: <http://www.optionsclearing.com/webapps/exchange-volume?reportType=D&instrumentType=both>.

110) Do commenters believe that it is appropriate to remove the requirement to report retail order routing information by listing market (NYSE, NASDAQ, and the American Stock Exchange (n/k/a NYSE MKT LLC))? Why or why not?

Answer: We do not believe that a categorization by listing exchange would add very much information to the proposed categorization of Rule 606 suggested in this letter. If any characterization should be done beyond the “held” and type of “not held” categories, we would suggest that analysis could be split between corporate issues and ETFs. While exchange listing is somewhat a proxy for this difference, new listing venues can (and have) been added without changes to Rule 606 and there are not many statistically significant differences in the trading characteristics of either common stocks or ETFs listed on different markets. Note that, in all cases, we suggest aggregations within all order received categories of subsequent routed orders by IOC and Day, Marketable and Not-Marketable, as well as per venue per size bucket.

111) Answered above.

112) Answered above.

113) Do commenters believe that retail order routing information organized by stocks included in the S&P 500 Index and stocks not included in the S&P 500 Index versus by listing market or by NMS stocks would be useful to customers? Why or why not? Please explain.

Answer: It would be beneficial to separate the reporting suggested for Rule 606, to S&P 500 stocks and other stocks in order to highlight the quality and order routing statistics of the largest stocks in the market. That is why the FIF voluntary reporting chose to break out the data provided by participating retail brokers by this method.⁴³ We are hesitant to make this recommendation however, since there is a cost for brokers to subscribe to the index constituents of the S&P indices. Thus, we would only recommend this categorization if the index data required was considered free of charge to the small broker dealers that would be obligated to produce these reports.

114) Answered above.

115) Answered above.

116) Answered above.

117) Answered above.

118) Answered above.

119) Answered above.

120) No direct knowledge

121) No direct knowledge

122) Answered above.

123) Answered above.

124) No direct knowledge.

125) No direct knowledge.

126) Do customers currently receive institutional order handling reports that are comparable to the public reports as proposed by Rule 606(c)? If so, what information is contained in such

⁴³ See fn 14 supra.

reports and how, if at all, do those reports differ from the proposed public reports? How do the costs and benefits of those reports compare to the reports as proposed by Rule 606(c)? Please be specific and, if possible, provide specific estimates or data.

Answer: We currently produce reports with both routing and statistical information for hundreds of clients from Transaction Cost Analysis and Rule 605 / 606 reporting systems with some of the same information. We plan to continue development of similar and more detailed reporting for our clients, but believe that this proposal for aggregated public disclosures would be beneficial. It will provide public information and establish a template for grouping and analysing routed orders in a coherent and practical manner.

127) Do commenters believe that the Commission's assessment of the baseline for the economic analysis is correct? Why or why not? Please be specific.

Answer: No. The Commission seriously understates the costs involved in producing the reports as well as the complexities of acquiring the information. The Proposal would be significantly more difficult to produce than the version we have suggested due to the vagueness in defining strategies, issues with using notional value to characterize orders, the breadth of the IOI rules, and the other flaws we have pointed out. Despite this, even if there was no complexity to these reports, the estimates provided by the Commission are quite low. In order to produce the data for the public reports, brokers will all have to modify their OMS system or have their OMS vendor make changes. This new Rule 606 report would require new data elements to be produced from the OMS, which might lack data such as the fee and rebate rates paid by various venues. The Commission estimates the amount of work to change the OMS to provide the relevant data at 8 hours of work per broker dealer. I have been personally involved in the development of OMS and electronic trading systems for over 30 years, but have never seen a change involving data such as this be less than one month of programming effort, while the Commission estimates it at one day. Even if it were true that the programming effort would only be 8 hours, that figure ignores the development of proper specifications, testing and deployment plan, unit testing, quality assurance (QA) testing, regression testing, and the deployment process required by modern SDLC (System Development Life Cycle) and the policies and procedures required by Regulation SCI⁴⁴. Our estimate of the actual cost of a project of this size would be for at least a four weeks of developer time, plus an estimated cost of another two weeks of business analyst, QA analyst, systems infrastructure, operations and administration time, for a total cost of 240 hours per broker or vendor. Utilizing the lowest rate used by the Commission (for a business analyst), the total cost for the industry would be over \$16 million, just for producing the input data for the report.

Second, the estimate of the changes to the Rule 606 report ignores the new requirement for a searchable, historical store of all NMS quotes to be integrated into the reporting system, so that marketability of orders can be determined (and is also needed for calculating execution statistics), which is market data this not currently required by Rule 606. Based on our experience in producing the voluntary FIF reports, we would expect that the base cost of Rule 606 reporting will rise roughly three times. This estimate assumes the Commission ultimately adopts rules similar to what is proposed in this letter as opposed to ambiguities involved with the Proposal as discussed above. In aggregate, therefore, we would estimate that vendor charges to

⁴⁴ See 17 CFR 242.1000 and 1001(a)(2) (describing the policies and procedures required by each SCI entity (which would include exchanges and large volume ATSS) for each SCI system (which would include market regulation systems) , both of which are likely to be covered by Rule 605 and Rule 606 as set forth in the Proposal or as recommended in our letter).

the broker dealers could cost at least \$2 to \$2.5 million more, industry wide, for the public reports alone. We should also note that these costs would likely be substantially lower than what it would cost broker dealers to develop their own systems, as the required quote store alone would cost brokers that do not have one substantially more than these fees.

This incremental aggregate cost of approximately \$18 million we have estimated does not include the complexities of the IOI reporting or the likelihood of needing monitoring systems for ensuring that strategy definitions are reasonably defined. This is more than a full order of magnitude more than the estimates prepared by the Commission and it is possible that the same ratio could apply to other calculations.

128) Do commenters believe that the baseline discussion provides a fair representation of current practices under Rules 600, 605, and 606?

Answer: No. As we have commented above, we do not believe the Commission has accurately described either the categorization of institutional orders or the utilization of IOIs in the current routing of institutional orders. IOIs are sent by broker dealers when routing, mostly to their institutional clients and not to broker dealers, but IOIs are received by broker dealer and exchange routers from broker dealers representing external liquidity providers.

129) Do commenters believe that the Commission's description of the competitive landscape for broker-dealers is accurate?

Answer: No. While the Commission accurately assesses the lack of standardization and the difficulty institutions have in receiving order routing data, they underestimate the issues presented today by a lack of execution quality data in Rule 606, poor categorization of orders in both Rule 606 and 605 and the difficulty in estimating execution quality caused by the exemptions to both Rules.⁴⁵ Our assessment is that the only orders which are appropriately disclosed are current "covered" market orders under Rule 605. Marketable limits are not understood well, due to the comingling of IOC orders, plus the exclusion of odd lots and orders of 10,000 shares or more. Lastly, all orders with trading restrictions, including short sales not subject to Rule 201 of Regulation SHO,⁴⁶ are excluded as well. Moreover, even if an investor could estimate the execution quality for every venue, the lack of statistics on execution quality or routing characteristics in Rule 606 renders it extremely hard to evaluate the quality of routing brokers. We agree with several of the Commission's assessments, however, starting with the description of the importance of low transaction costs and including the idea that better disclosure will spur competition among brokers.

130) Answered above.

131) Answered above.

⁴⁵ For an overview of these deficiencies, see my discussion "SEC Rule 606: Repair is needed before any more pilot programs are started," May 27, 2016, available on the IHS Markit website at: <http://www.markit.com/Commentary/Get/27052016-In-My-Opinion-SEC-Rule-606-Repair-is-needed-before-any-more-pilot-programs-are-started>.

⁴⁶ See 17 CFR 242.201 and Division of Trading and Markets: Responses to Frequently Asked Questions Concerning Rule 605 of Regulation NMS, Question 2 available at: <https://www.sec.gov/divisions/marketreg/nmsfaq605.htm> (excluding non-exempt short sales from Rule 605 reporting as special handling orders because of price tests).

132) Do commenters believe that the Commission's description of the potential conflicts of interest broker-dealers face when routing institutional or retail orders is accurate? Why or why not? Please be specific in your response.

Answer: Yes, but, as stated above, there is no way to use either the proposed Rule 606 reporting or the proposed institutional reporting to highlight conflicts of interest without adding execution quality metrics and proper categorization of orders to the reports. Brokers who demonstrate consistently higher routing costs could well be achieving better results for their clients, but not necessarily, if the reason is a lack of technology to control their costs. This is because the same technology also can be used to access more liquidity. Similarly, brokers who collect more rebates from exchanges could be putting their own interests ahead of their clients, or could have invested heavily in low latency infrastructure to achieve higher fill rates on posted orders. If the Commission implements the suggested changes to Rules 606 and 605 articulated in the body of this letter, however, the reports will provide a sound basis for understanding potential conflicts of interest in context.

133-178 All the remaining questions have been answered either in the body of this letter or in answers to other questions.

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IHS Markit thanks the Commission for the opportunity to submit these comments. If the Commission has any questions or would like additional information, please do not hesitate to contact us.

Respectfully submitted,

David M. Weisberger
Managing Director, IHS Markit

Cc:

The Honorable Mary Jo White, Chair
The Honorable Kara M. Stein, Commissioner
The Honorable Michael S. Piwowar, Commissioner
Stephen Luparello, Director, Division of Trading and Markets
Gary Goldsholle, Deputy Director, Division of Trading and Markets
David S. Shillman, Associate Director, Division of Trading and Markets
Richard Holley III, Associate Director, Division of Trading and Markets

Appendix A Held / Not Held Order Report Sample

Held Order Report – Aggregated Venue Data									
		0-99	100-499	500-1,999	2,000-4,999	5,000-9,999	10,000-24,999	25,000-99,999	100,000+
* Execution Quality Stats →									
Market	DAY								
	IOC								
Marketable	DAY								
	IOC								
Non-Marketable	DAY								
	IOC								

±

Not Held Order Report – Venue Specific Data											
				0-99	100-499	500-1,999	2,000-4,999	5,000-9,999	10,000-24,999	25,000-99,999	100,000+
Venue 1 (etc.)				* Execution Quality Stats →							
	Marketable	DAY	Time and Venue Discretion (orders worked over time)								
			Venue Discretion Only (orders immediately routed)								
			Directed Venue (orders routed per instructions)								
		IOC	Time and Venue Discretion (orders worked over time)								
			Venue Discretion Only (orders immediately routed)								
			Directed Venue (orders routed per instructions)								
	Non-Marketable	DAY – displayed	Time and Venue Discretion (orders worked over time)								
			Venue Discretion Only (orders immediately routed)								
			Directed Venue (orders routed per instructions)								
		DAY – non-displayed	Time and Venue Discretion (orders worked over time)								
			Venue Discretion Only (orders immediately routed)								
			Directed Venue (orders routed per instructions)								
IOC	Venue Discretion Only (orders immediately routed)										
	Directed Venue (orders routed per instructions)										
	Directed Venue (orders routed per instructions)										

* Execution Quality Statistics would include all statistics currently included in Rule 605, as well as the additional statistics proposed in this letter (see page 9 supra).