MEMORANDUM

TO: Equity Market Structure Advisory Committee

FROM: Securities and Exchange Commission, Division of Trading and Markets[1]

DATE: January 26, 2016

SUBJECT: Certain Issues Affecting Customers in the Current Equity Market Structure

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I. INTRODUCTION

This memorandum is intended to facilitate consideration by the Committee of certain issues affecting customers—particularly retail customers—in the current equity market structure, namely: (1) the risks of using certain order types, (2) the potential conflicts presented by payment-for-order-flow arrangements, and (3) the development of more meaningful execution-quality reports.

The memorandum first discusses the use of certain order types (market orders and stop orders) by retail investors, risks that have been identified with the use of those order types, and potential ways to address them. The memorandum then discusses payment for order flow, laying out the history and current status of payment-for-order-flow arrangements, the potential conflicts of interest and market-structure issues they can create, and possible solutions. Finally, the memorandum discusses execution-quality reports currently available to customers, laying out the current disclosures required by Rules 605 and 606 of Regulation NMS under the Securities Exchange Act of 1934 ("Exchange Act"), the significant ways in which the equity markets have changed since those requirements were adopted, and enhancements to these disclosures that have been suggested by market participants.

II. RISKS OF MARKET ORDERS AND STOP ORDERS

Although exchanges and other trading centers today offer market participants a wide variety of complex order types, retail investors generally tend to rely upon a small set of relatively straightforward order types: market orders, limit orders, stop orders, and time-in-force orders. Certain of these—market orders and stop orders—can present significant risks to investors, especially during periods of short-term market volatility.

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[1] This is a memorandum by the Division of Trading and Markets of U.S. Securities and Exchange Commission. The Commission has expressed no view regarding the analysis or the statements herein.

A. Characteristics and Potential Risks of Market Orders and Stop Orders

Market orders are orders to buy or sell a stock immediately and at the best available price, with no price limitations.[2] While institutions and professional investors generally do not use market orders, this order type remains popular with retail investors, many of whom enter orders outside of regular trading hours (e.g., in the evening or during the weekend) because it is impracticable for them to trade during their working day.

Stop orders, sometimes called stop-loss orders, are orders to buy or sell that are triggered when the price of a stock reaches a specified level, which is called the stop price.[3] When the stop price is reached, a stop order converts into a market order (or, less commonly, a limit order) seeking immediate execution.[4] Retail investors can use this order type to try to protect a gain or to limit potential losses of a currently held position.[5] Stop orders are either held by a brokerage firm, which sends the order into the market when the stop price is triggered, or held directly on an exchange's book.[6] Orders resting on an exchange's book, however, have been relatively uncommon.

Market orders and stop orders face a common risk: those who submit market orders, or whose stop orders convert to market orders, anticipate that there will be robust and orderly quoting and trading activity to provide an immediate execution at a reasonable price. Market orders prioritize immediacy of execution over price protection, and, on a volatile trading day, the execution price

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[2] It should be noted that almost none of the marketable orders (i.e., market orders or marketable limit orders) placed by retail investors are routed to an exchange for execution. *See* Concept Release on Equity Market Structure, Securities Exchange Act Release No. 61358 (Jan. 14, 2010), 75 FR 3594, 3602 (Jan. 21, 2010) ("Market Structure Concept Release"), *available at* https://www.sec.gov/rules/concept/2010/34-61358.pdf. Instead, these orders are internalized by the customer's broker or sold to an OTC market maker that executes the orders against its inventory. *Id.* Internalization is believed to account for almost 100% of all retail marketable order flow. *Id.* Although market orders are almost exclusively internalized, some customer limit orders are routed to exchanges. *Id.*

[3] *See Trading Basics: Understanding the Different Ways to Buy and Sell Stock*, Securities and Exchange Commission Investor Bulletin, Pub. No. 141 (March 2011), https://www.sec.gov/investor/alerts/trading101basics.pdf.

[4] *See id.*

[5] Stop orders are sometimes entered as stop-limit orders or trailing-stop orders. Stop-limit orders combine the features of a stop order and a limit order. Once the stop price is reached, the order automatically becomes a limit order. A trailing-stop order is a stop order that adjusts the stop price as the price of the security changes, thereby eliminating the need for a customer to cancel and resubmit the order.

[6] Different brokers may have different rules regarding the triggering of a stop order. For example, at some brokers, stop orders may be triggered only by a round lot transaction at the stop price. *See, e.g., Trading FAQs: Order Types*, Fidelity, https://www.fidelity.com/trading/faqs-order-types (last visited Jan. 20, 2016). At other brokers, stop orders may be triggered either by a print at the stop price or by a quotation. *See, e.g., Account Handbook*, 6, TD Direct Investing, https://www.tdameritrade.com/retail-en_us/resources/pdf/TDA066.pdf (last visited Jan. 20, 2016).

achieved by these orders can deviate significantly from recently traded prices or from an order's stop price.

Although the recently implemented Limit Up-Limit Down ("LULD") mechanism is meant to moderate excessive market volatility[7] and places outer bounds on the potential movement of a market order, there remains substantial room for prices to move before the LULD volatility moderators are triggered. In addition, the LULD mechanism does not constrain price movements between one day's close and the next day's open. Thus, even with the protections of LULD, investors using market orders risk receiving an execution at a price substantially worse than anticipated, particularly in volatile markets. An example of such severe price volatility occurred on August 24, 2015, when, during the first 15 minutes of trading, more than 20% of the S&P 500 companies and more than 40% of the NASDAQ 100 companies traded 10% or more below their previous day's closing price.[8]

Stop orders also present risks in addition to those of market orders. Specifically, while stop orders are intended to automatically limit a potential loss in connection with a fundamental price movement, they may also be triggered by transitory volatility, when the price of a security momentarily declines because of a liquidity gap or other short-term phenomenon. The triggering of a stop order under these transitory circumstances may not align with an investor's intent to sell the security in response to more fundamental changes in the price of the security. For example, during the market events of May 6, 2010, when over 20,000 trades were executed at prices 60% or more away from the prices 20 minutes before,[9] many retail stop orders, triggered by declines in prices, sought to sell immediately against reduced buying interest, which not only resulted in poor executions but added further selling pressure to those securities.[10]

In light of the risks posed to investors by stop orders, some exchanges have eliminated this order type from their rule book.[11] One exchange explained that, '[b]ecause Stop Orders, when elected,

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[7] The implementation of the Limit Up-Limit Down mechanism is intended to prevent trades from occurring outside of specified price bands, which are set above and below a reference price that is the average price of a security over the immediately preceding five minutes. *See* Order Approving, on a Pilot Basis, the National Market System Plan to Address Extraordinary Market Volatility, Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498, at 33500 n.23 (June 6, 2012), *available at* https://www.federalregister.gov/articles/2012/06/06/2012-13653/joint-industry-plans-order-approving-on-a-pilot-basis-the-national-market-system-plan-to-address.

[8] *See* SEC Staff Research Note: Equity Market Volatility on August 24, 2015, 1 (Dec. 2015), https://www.sec.gov/marketstructure/research/equity_market_volatility.pdf.

[9] Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, *Findings Regarding the Market Events of May 6, 2010*, 5 (Sept. 30, 2010), https://www.sec.gov/news/studies/2010/marketevents-report.pdf.

[10] *Id.*

[11] *See, e.g.*, Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend Rule 13 To Eliminate Good til Cancelled Orders and Stop Orders, Securities Exchange Act Release No. 76649 (Dec. 15,

(footnote continued…)

can exacerbate market volatility and result in executions in declining markets at prices significantly different than the quoted price, the Exchange believes that eliminating them would reduce the potential for orders on the Exchange to cause significant price dislocation."[12] As noted above, however, stop orders resting on exchanges have been uncommon, and the vast majority of stop orders have been held by broker-dealers.[13]

B. <u>Potential Steps to Address the Risks Posed by Market Orders and Stop Orders</u>

There are a range of possible approaches to address the potential risks that market orders and stop orders pose for retail investors. One commonly used approach is to educate investors about the risks of these order types. For example, the Commission's Office of Investor Education and Advocacy has published an investor bulletin to explain the mechanics and risks of certain order types, including market orders and stop orders.[14] Renewed efforts could be undertaken by regulators and market participants to enhance the intensity and effectiveness of investor education in this area, in an attempt to improve investor understanding of the risks posed by market orders or stop orders and of potential ways to mitigate those risks.

Another approach would be to place restrictions on the use of these order types. For example, as the risks posed by market orders stem from the lack of price protection, one possible approach would be for broker-dealers and exchanges to require that all retail-investor orders, including stop orders, include a limit price.[15] This approach, however, would involve self-evident

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2015), 80 FR 79365 (Dec. 21, 2015) (SR-NYSE-2015-60) ("NYSE Notice"), *available at* https://www.sec.gov/rules/sro/nyse/2015/34-76649.pdf; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend Rule 13 To Eliminate Good til Cancelled Orders and Stop Orders, Securities Exchange Act Release No. 76655 (Dec. 15, 2015), 80 FR 79382 (Dec. 21, 2015) (SR-NYSEMKT-2015-103), *available at* https://www.sec.gov/rules/sro/nysemkt/2015/34-76655.pdf.

[12] *See* NYSE Notice, *supra* note 11, at 10-11.

[13] *See, e.g.,* NYSE Order Type Usage Chart, https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSE-Order-Type-Usage.pdf (illustrating that stop orders, along with good-til-canceled, agency cross and manual orders, accounted for only 0.19% of total matched volume for Q3 2015 and Q4 2015); *see also* Charles Rotblut, *What to Do After NYSE Bans Stop Orders?*, Smarter Analyst (Nov. 29, 2015), http://www.smarteranalyst.com/2015/11/29/what-to-do-after-nyse-bans-stop-orders/.

[14] *See Trading Basics: Understanding the Different Ways to Buy and Sell Stock*, Securities and Exchange Commission Investor Bulletin, Pub. No. 141 (March 2011), https://www.sec.gov/investor/alerts/trading101basics.pdf. That bulletin explains, among other things, that the price at which a market order will be executed is not guaranteed and that stop prices should be selected carefully because short-term market fluctuations in a stock's price can activate a stop order. *Id.* Additionally, the bulletin emphasizes that the stop price is a trigger that causes the stop order to become a market order—not the guaranteed execution price—and that the execution price an investor receives for this market order can deviate significantly from the stop price in a fast-moving market. *Id.*

[15] Such an approach, if made mandatory, would require rulemaking by FINRA with respect to broker-dealers, and either proposed rule changes by the exchanges under Sec. 19(b) of the Exchange Act or Commission rulemaking.

tradeoffs. If there were no bound on the level of that limit price, this might encourage investors to think about the most extreme execution they are willing to accept, but it could still expose them to risks of executions at prices far away from recent market prices. Alternatively, if retail investors had to select a limit price within a specified range around the current market price, this would prevent executions at more extreme prices, but it might preclude investors who wish to enter very aggressive orders from doing so.

Other possible alternatives would be to limit or prohibit the use of market orders at certain particularly risky times—e.g., before the opening of trading or while trading is halted[16]—or to prohibit the use of stop orders for particularly volatile securities, or even altogether.[17]

III. PAYMENT FOR ORDER FLOW

A. Background

1. Definition

Broadly speaking, the concept of payment for order flow encompasses a wide variety of cash or in-kind compensation structures that a broker may receive for directing its customers' orders to a particular broker-dealer or trading venue. The discussion in this paper, however, will focus on the widespread arrangements in which over-the-counter ("OTC") market makers make cash payments to retail brokerage firms in exchange for marketable retail customer order flow.[18] In

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[16] To date, two types of limitations have been placed on the use or execution of marketable orders. First, FINRA currently prohibits its member firms from accepting a market order for the purchase of shares of a new issue in the secondary market before trading of those shares commences in the secondary market. FINRA Rule 5131(d)(4). This restriction is designed to prevent investors who place market orders in a new issue from finding their orders "filled at prices beyond their reasonable expectations … further contribut[ing] to the unconstrained increase in the price of a new issue in the secondary market." FINRA Reg. Notice 10-60, *Approval of New Issue Rule*, 6 (Nov. 2010), https://www.finra.org/sites/default/files/NoticeDocument/p122490.pdf. Second, some exchanges impose trading collars to reduce the risk of a poor execution price. For example, the NYSE imposes trading collars on marketable orders when automatic executions are in effect. These collars are set a given percentage away from the NBBO, and an incoming market or marketable limit order will neither execute at, nor route away to, a price equal to or inferior to the collar. *See* NYSE Rule 1000(c).

[17] While banning the use of stop orders would have the advantage of ensuring that investors do not receive unintended executions, it also would preclude investors from using a tool that, in ordinary circumstances, can automatically and effectively limit their losses or preserve their gains. Retail investor use of stop orders is believed to be widespread. *See* Annie Massa and Sam Mamudi, *Black Rock Calls for Halting Stock Market to Avoid Volatility*, Bloomberg Business (Oct. 7, 2015), http://www.bloomberg.com/news/articles/2015-10-07/blackrock-calls-for-halting-the-stock-market-to-avoid-volatility (citing industry concerns with "the widespread use of stop orders by retail investors").

[18] Exchange Act Rule 10b-10 defines "payment for order flow" to include "any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration to a broker or dealer from any broker or dealer, national securities exchange, registered securities association, or exchange member in return for the routing of customer orders by such broker or dealer to any broker or dealer, national securities exchange, registered securities association, or exchange member for execution, including but not limited to:

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the current market structure, most marketable retail customer orders are either internalized by an integrated broker-dealer or routed to an OTC market maker for execution.[19]

Market makers are interested in retail customer order flow because retail investors are, on balance, less informed than other traders about short-term price movements.[20] Trading against retail customer order flow enables market makers to avoid adverse selection by informed professional traders and to more reliably profit from market-making activity. After market makers internalize the relatively uninformed retail customer order flow, the informed order flow that remains is left for the exchanges to absorb. Typically, dealers that pay to receive retail customer order flow will guarantee executions of that order flow with some amount of average price improvement over the national best bid or offer ("NBBO") and with a separate payment to retail brokers for directing customer orders to them. Payment-for-order-flow arrangements are often formalized by contract.

2. Development of Payment-for-Order-Flow Practices

The rise and growth of payment-for-order-flow practices is attributable to several factors. When near-real-time availability of exchange NBBO and transaction data came about in the early 1980s, OTC market makers began to compete with exchanges in offering executions at the NBBO. To encourage brokers to send order flow to them, these OTC market makers approached retail firms to seek a guaranteed, consistent amount of order flow in exchange for compensation of $0.01 to $0.02 per share and a prompt execution at the NBBO or better.[21] In contrast, at the time, exchanges would typically charge brokers execution fees for marketable retail customer orders.

Since the 1980s, payment-for-order-flow practices have continued to expand into a widespread industry practice that features competition among multiple purchasers of order flow.[22] Because

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research, clearance, custody, products or services; reciprocal agreements for the provision of order flow; adjustment of a broker or dealer's unfavorable trading errors; offers to participate as underwriter in public offerings; stock loans or shared interest accrued thereon; discounts, rebates, or any other reductions of or credits against any fee to, or expense or other financial obligation of, the broker or dealer routing a customer order that exceeds that fee, expense or financial obligation." 17 CFR 240.10b-10(8). This memorandum does not discuss payment for order flow in the form of liquidity rebates paid by exchanges using "maker-taker" fee structures, as that aspect of payment for order flow has already been discussed in another staff memorandum. *See* SEC Staff Memorandum on Maker-Taker Fees on Equities Exchanges (Oct. 20, 2015), http://www.sec.gov/spotlight/emsac/memo-maker-taker-fees-on-equities-exchanges.pdf.

19 *See* Concept Release on Equity Market Structure, *supra* note 2, 75 FR at 3600.

20 *See id.*, 75 FR at 3611.

21 *See* Payment for Order Flow Proposing Release, Securities Exchange Act Release No. 33026 (Oct. 7, 1993) 58 FR 52934, 52936 (Oct. 13, 1993) ("Payment for Order Flow Proposing Release").

22 *See* Robert Battalio and Craig W. Holden, "A Simple Model of Payment for Order Flow, Internalization, and Total Trading Cost," Journal of Financial Markets (Jan. 2001).

of competition among OTC market makers, the rates for order flow were higher in the 1990s than in the 1980s,[23] but with decimalization, the per-share rates for payment for order flow are now lower.[24] Currently, the rates for payment for order flow received by three of the largest retail brokers range from $0.0010 to $0.0031 per share for equity securities.[25] In 2013, annual payments received by some of the largest retail brokers from payment-for-order-flow arrangements ranged from $72.5 million[26] to $236 million.[27] And in 2014, the range of those annual payments increased further to $92 million[28] to $304 million.[29] Per-share rates of payments for order flow for listed options have historically been marginally higher than those for equity securities, ranging from $0.20 to $1.00 per contract, or $0.002 to $0.010 per underlying share.[30]

3. Regulatory Treatment of Payment for Order Flow

The Commission has stated that a broker-dealer does not necessarily violate its best-execution obligation merely because it receives payment for order flow.[31] At the same time, the Commission has stated that the existence of payment for order flow raises the potential for

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23 *See id.*

24 *See generally* Annette L. Nazareth, *Speech by SEC Staff: Regulatory and Compliance Issues in a Decimalized Environment*, Securities Industry Association Legal Compliance Committee (June 8, 2001), https://www.sec.gov/news/speech/spch503.htm ("Nevertheless, as the Commission has long recognized, the shift from fractional to decimal prices has begun to influence market dynamics and trading behavior in fundamental ways. For example … reduced trading profits will substantially reduce the profits available to pay for order flow.").

25 *See* Fidelity Brokerage Services LLC, *SEC Rule 606 Quarterly Report for the Quarter Ending September 30, 2015,* http://personal.fidelity.com/products/pdf/fbsquarterly.pdf (noting payments ranging from $0.0011 to $0.0029 per share); E*Trade Financial, *E*TRADE 606 Disclosure 4Q2015*, https://content.etrade.com/etrade/powerpage/pdf/OrderRouting11AC6.pdf (noting payments ranging from $0.0010 to $0.0031 per share); *and* TD Ameritrade, Inc., *SEC Rule 606 Report Third Quarter 2015*, https://www.tdameritrade.com/retail-en_us/resources/pdf/AMTD2055.pdf (noting payments ranging from $0.0011 to $0.0025 per share).

26 *See* E*TRADE Annual Report (2013), https://about.etrade.com/secfiling.cfm?filingID=1193125-14-67515.

27 *See* TD Ameritrade Annual Report (2014), http://s1.q4cdn.com/156458933/files/doc_annualreports/ar2014/docs/TD_2014_AR.pdf.

28 *See* E*TRADE Annual Report (2014), http://www.sec.gov/Archives/edgar/data/1015780/000101578015000026/etfc-20141231x10k.htm.

29 *See* TD Ameritrade Annual Report (2014), *supra* note 27. *See also* Bradley Hope and Julie Steinberg, *Payments to Big Brokers Under Fresh Scrutiny*, Wall Street Journal: Money Beat (Jun 13, 2014, 2:26 PM), http://blogs.wsj.com/moneybeat/2014/06/13/payments-to-big-brokers-under-fresh-scrutiny/ (noting that revenues from payment for order flow in 2013 were $100 million).

30 *See Special Study: Payment for Order Flow and Internalization in the Options Markets*¸ Securities and Exchange Commission (Dec. 2000), https://www.sec.gov/news/studies/ordpay.htm (Appendix B).

31 *See* Payment for Order Flow, Final Rules, Securities Exchange Act Release No. 34902 (Oct. 27, 1994), 59 FR 55006, 55009 (Nov. 2, 1994) ("Payment for Order Flow Release").

conflicts of interest for broker-dealers handling customer orders.[32] To date, the Commission has pursued an approach based primarily on disclosure to address concerns about the potential conflicts of interest caused by payment-for-order-flow arrangements.[33]

Starting in 1994, the Commission adopted regulations requiring broker-dealers to provide disclosures on payment-for-order-flow arrangements to their customers and to the public. Collectively, Rules 10b-10, 606, and 607 under the Exchange Act require broker-dealers to disclose information about payment-for-order-flow arrangements to customers at the opening of a new account and, thereafter, on customer trade confirmations and in public quarterly reports.

Specifically, for any NMS stock, Rule 10b-10 requires that a broker-dealer indicate on the customer's confirmation statement when payment for order flow has been received on a transaction and also indicate that the source and nature of the compensation received in connection with the particular transaction will be furnished upon the customer's written request.[34]

Rule 606 of Regulation NMS, discussed in further detail below, requires broker-dealers to provide public quarterly reports that disclose, among other things, the identity of the top ten venues to which they routed orders for execution and the material aspects of their relationship with each of those venues, including any arrangement for payment for order flow or profit sharing.[35]

Rule 607 of Regulation NMS requires broker-dealers to disclose upon opening a new customer account and on an annual basis thereafter: (i) their policies regarding payment for order flow, including a statement as to whether any payment for order flow is received for routing customer orders and a detailed description of the nature of the compensation received, and (ii) their policies for determining, in the absence of specific customer instructions, where to route customer orders that are the subject of payment for order flow, including a description of the extent to which orders can be executed at prices superior to the NBBO.[36]

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[32] *See id.*

[33] *See id.,* 59 FR at 55006. ("The Commission is adopting the proposed disclosure approach as discussed below. The Commission believes this approach will further the investor protection goals of the [Exchange] Act, and is consistent with the general philosophy underlying disclosure that 'sunlight is the best disinfectant.'").

[34] 17 CFR 240.10b-10.

[35] *See* Disclosure of Order Execution and Routing Practices, Final Rules, Securities Exchange Act Release No. 43590 (Nov. 17, 2000), 65 FR 75414 (Dec. 1, 2000) ("Execution and Routing Release"), *available at* https://www.sec.gov/rules/final/34-43590.htm.

[36] 17 CFR 240.607(a)(1) and (2).

B. **Potential Issues Raised by Payment for Order Flow**

A broker-dealer's order-routing decisions are subject to the duty of best execution.[37] That duty requires a broker to seek to execute a customer's order at the most favorable terms reasonably available under the circumstances.[38] Broker-dealers must also conduct regular and rigorous reviews of their order-routing practices and execution quality and must consider payment-for-order-flow arrangements when conducting these reviews.[39]

Retail brokerage firms that receive payment for order flow from OTC market makers not only get the direct economic benefit of those payments, but in many cases also avoid paying exchange access fees.[40] Because brokers generally charge flat per-transaction commissions, and do not pass to customers either the payments they receive for order flow or the charges they incur for exchange access fees, there can be material economic incentives for a broker to send its marketable retail orders to OTC market makers that pay for order flow. These economic incentives create potential conflicts with a broker's duty of best execution and may cause observers to question the rigor with which a broker seeks to obtain the best execution for its customer orders.[41] It is possible that, in the absence of payment for order flow, market makers

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[37] *See* Payment for Order Flow Release, *supra* note 31, 59 FR at 55009. ("Broker-dealers accepting remuneration from a market center for directing order flow to that market center are still obligated to fulfill their duty of best execution to their customers.").

[38] *See* Order Execution Obligations, Final Rules, Securities Exchange Act Release No. 37619A (Sept. 6, 1996), 61 FR 48290, 48322 (Sept. 12, 1996) ("A broker-dealer's duty of best execution derives from common law agency principles and fiduciary obligations, and is incorporated both in SRO rules and, through judicial and Commission decisions, in the antifraud provisions of the federal securities laws. This duty of best execution requires a broker-dealer to seek the most favorable terms reasonably available under the circumstances for a customer's transaction. The scope of this duty of best execution must evolve as changes occur in the market that give rise to improved executions for customer orders, including opportunities to trade at more advantageous prices. As these changes occur, broker-dealers' procedures for seeking to obtain best execution for customer orders also must be modified to consider price opportunities that become 'reasonably available.'").

[39] FINRA's rules require FINRA member firms to conduct regular and rigorous reviews of their execution quality. *See* FINRA Rule 5310. Some of the factors that a firm would consider when assessing execution quality include: (1) the execution price, including whether it was executed at an inferior price, (2) the likelihood of price improvement at other venues, (3) the likelihood of a partial or full execution, (4) the speed of execution, (5) the size of an execution, (6) transaction costs, and (7) customer needs and expectations. *See* FINRA Regulatory Notice 15-46 (Nov. 2015), https://www.finra.org/industry/notices/15-46.

[40] *See* James T. Angel, Lawrence E. Harris & Chester S. Spatt, *Equity Trading in the 21st Century: An Update*, 27 (June 21, 2013). As this paper notes, for brokers with dealing affiliates, these arrangements allow them to save on access fees and also to profit from the difference in the spreads. *Id.*

[41] One study has found that market order execution quality is better on venues that do not pay for marketable orders. *See* Mark Peterson and Erik Sirri, *Order Preferencing and Market Quality on U.S. Equity Exchanges*, Review of Financial Studies (2003).

could have incentives to quote more competitively, in which case customers could receive even better prices for their orders.[42]

On the other hand, some have argued that payment-for-order-flow arrangements indirectly benefit customers by subsidizing low commission rates and other customer services.[43] Additionally, retail marketable orders routed pursuant to payment-for-order-flow arrangements are generally executed quickly and at the NBBO or better.[44]

C. Potential Steps to Address Issues with Payment for Order Flow

Prohibit Payment for Order Flow. One option to address concerns with payment for order flow would be to prohibit this practice on the grounds that it presents a conflict of interest too significant to be adequately addressed by disclosure and best-execution obligations.[45] If brokers were precluded from receiving payment for order flow, the potential conflicts of interest it creates could be eliminated.

If payment for order flow were banned, however, market participants might develop other, less-transparent means to induce order flow, which could give rise to similar concerns yet be more difficult to monitor and control. Further, as discussed in the Commission's 2000 Request for Comment on Market Fragmentation,[46] the issues arising from payment for order flow are difficult to distinguish from those that arise when an integrated broker-dealer, with a retail customer business and a market-making desk, internalizes its own customer order flow.[47] Unless internalization were banned as well, prohibiting payment for order flow could, among other

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[42] *See* Payment for Order Flow Proposing Release, *supra* note 21, 58 FR at 52939 ("Opponents [of payment-for-order-flow practices] also argue that payment for order flow may reduce the role of quotations as a medium for market maker quote competition for orders. To the extent that a market maker receives order flow regardless of the competitiveness of its quote, the market maker has less need to seek order flow through competitive quotes.").

[43] *See* Angel, Harris & Spatt, *supra* note 40, at 27 (stating that "the revenues that brokers obtain from their order flows may be competed away as they lower their commissions and offer greater service to their customers in an attempt to attract their orders. Indeed, evidence exists that suggests that competition among brokers to obtain customer order flow has driven a significant portion of these payments [for order flow] back to retail customers.")

[44] *See Conflicts of Interest in the Equity Markets*, Before the Senate Permanent Subcomm. on Investigations, 6 (June 17, 2014) (Testimony of Robert Battalio).

[45] *See* Payment for Order Flow Proposing Release, *supra* note 21, 58 FR at 52941.

[46] Notice of Proposed Rule Change by the New York Stock Exchange to Rescind Exchange Rule 390; Commission Request for Comment on Issues Relation to Market Fragmentation, Securities Exchange Act Release No. 42450 (Feb. 23, 2000), 65 FR 10577 (Feb. 28, 2000) ("Fragmentation Release"), https://www.sec.gov/rules/sro/ny9948n.htm.

[47] *See id.* Internalization is the routing of order flow by a broker to a market maker that is an affiliate of the broker. The economic benefits of internalizing are realized by the common ownership of the broker and market maker. *See id.*

things, provide competitive advantages to integrated broker-dealers or create incentives to become one.

Require Brokers to Pass Payment for Order Flow to Customers. The Commission has discussed requiring that payment for order flow be passed through to retail customers, which could also eliminate the conflicts for brokers receiving these payments.[48] In that case, brokers would have incentives to route orders in the manner most likely to result in an execution, as they would only be paid commissions if the orders were filled. Some have questioned whether this solution could work practically in a market environment where orders may take a circuitous route from initiation to completion. They have also questioned whether investors would want to move from a fixed commission schedule to a more complicated schedule based on commissions plus potential rebates or fees.[49]

Enhanced Best-Execution Guidance. Alternatively, more detailed guidance could be developed for broker-dealers on how to effectively address the potential conflicts created by payment-for-order-flow arrangements (and internalization), consistent with their best-execution obligations.[50] Consideration might also be given to requiring brokers that receive payment for order flow (or that internalize) to conduct a rigorous assessment of alternative order-execution opportunities on venues where these potential conflicts are not present, and to make that assessment available to customers.

Enhanced Retail Customer Disclosure. Another option could be to require broker-dealers to provide their retail customers more detailed information about the terms of, and the specific amounts received under, any payment-for-order-flow arrangement. Such disclosures could also be accompanied by an explanation of the potential conflicts created by these arrangements and a description of the steps the broker-dealer has taken to mitigate those conflicts.

IV. EXECUTION-QUALITY REPORTS

A. Background

Today, broker-dealers often have the choice of internalizing customer orders or routing them across myriad venues, including exchanges, lit or dark alternative trading systems ("ATSs"), and OTC dealers. Moreover, these venues have different ways of handling orders and offer access to a range of potential counterparties. This set of options can make it more difficult for customers to

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[48] *See* Payment for Order Flow Proposing Release, *supra* note 45, 58 FR at 52940.

[49] *See* Testimony of Robert Battalio, *supra* note 44, at 7.

[50] Guidance for brokers on how they should rigorously review their practices to determine whether they are obtaining best execution for their clients is available from FINRA, and these guidelines could form a baseline from which more rigorous requirements could be developed. *See* NASD Notice to Members 01-22 *and* FINRA Regulatory Notice 15-46, *supra* note 39.

assess how well their brokers fulfill their best-execution duties and to evaluate the impact of potential conflicts of interest.[51]

To respond to some of these concerns, the Commission, in 2000, commenced a review of market fragmentation and, as part of that inquiry, sought suggestions for a practical way to provide customers with clear and useful execution-quality statistics.[52] The Commission subsequently adopted Rules 11Ac1-5 and 11Ac1-6 under the Exchange Act, requiring market centers to publicly report execution-quality statistics and requiring brokers to publicly disclose their order-routing practices.[53] These rules were later incorporated into Regulation NMS as Rules 605 and 606.[54] By increasing disclosure of order execution and routing practices, the Commission intended that these reports would assist brokers in fulfilling their best-execution obligations, promote competition among market centers on the basis of execution quality, and ultimately lead to more-efficient securities transactions.[55]

Today, Rule 605 requires market centers—including exchanges, ATSs, and OTC dealers[56]—to prepare monthly reports that publicly disclose basic, standardized information about the execution quality they achieve for retail-size customer orders.[57] Rule 606 reports complement Rule 605 execution-quality disclosures by requiring broker-dealers to publicly disclose, on a quarterly basis, the identity of the market centers to which they route a significant percentage of retail-size customer orders, and the nature of their relationship with them.[58] In addition, Rule 606

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[51] *See e.g.*, Letter from Karrie McMillan, General Counsel, Investment Company Institute, to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 7 (Apr. 21, 2010), http://www.sec.gov/comments/s7-02-10/s70210-138.pdf (noting "complexities in the current market structure and the associated difficulties in assessing market performance for investors").

[52] *See* Fragmentation Release, *supra* note 46.

[53] Execution and Routing Release, *supra* note 35, 65 FR at 75415.

[54] Regulation NMS, Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496 (June 29, 2005), *available at* https://www.sec.gov/rules/final/34-51808.pdf.

[55] *See* Execution and Routing Release, *supra* note 35, 65 FR at 75434. Also, in a release concerning regulation of NMS Stock ATSs, the Commission has proposed requiring ATSs to disclose market-quality statistics not otherwise required under Rule 605. *See* Regulation of NMS Stock Alternative Trading Systems, Securities Exchange Act Release No. 76474 (Nov. 18, 2015), 80 FR 80998, 81152 (Dec. 28, 2015) ("ATS Release"), *available at* https://www.sec.gov/rules/proposed/2015/34-76474.pdf.

[56] "Market center" means any exchange market-maker, OTC market-maker, alternative trading system, national securities exchange, or national securities association. 17 CFR 242.600(b)(38).

[57] These reports describe how market orders in various size categories are executed relative to public quotes. *See* 17 CFR 242.605. For example, for shares executed with price improvement, market centers must disclose the share-weighted average price improvement per share and the length of time between order receipt and execution. *See* 17 CFR 242.605(a)(ii)(C)-(D). Rule 605 reports also include detail about the effective spreads paid by investors, requiring market centers to disclose the difference between execution prices and the midpoint of the NBBO at the time of execution. *See* 17 CFR 242.605(a)(i)(K).

[58] *See* 17 CFR 242.606(a)(ii). Broker-dealers must disclose, among other things, any aspects of their relationships with those market centers that could create a conflict of interest between the broker-dealer and its customers,

(footnote continued…)

provides that, upon customer request, a broker must disclose the identity of the venues to which the broker routed that customer's orders in the six-month period prior to the request.[59]

Some believe that the availability of Rule 605 and 606 reports has not only provided better information to customers, but also spurred competition among brokers to seek out higher-quality executions, which in turn has motivated market centers to improve their execution quality through more efficient and innovative order handling and execution practices. [60] The equity markets, however, have changed significantly since the adoption of Rules 605 and 606 and their predecessors. Electronic trading has become faster and more complex, market participants have developed new and innovative order-routing and execution strategies, and market fragmentation has continued to increase.[61] Accordingly, some have suggested that these rules be updated to better reflect the current market structure and that they be enhanced to more directly provide both retail and institutional customers information on the overall execution quality obtained by their brokers as they route orders to the myriad market centers that today constitute the national market system.

(…footnote continued)

such as any internalization or payment-for-order-flow arrangements. *See* 17 CFR 242.606(a)(iii). Rule 606 further requires brokers to disclose the percentage of total orders they received that were non-directed orders and, of those orders, the percentage that were market orders, limit orders, and other orders. *See* 17 CFR 242.606(a)(i).

[59] *See* 17 CFR 242.606(b).

[60] *See, e.g.*, Letter from Christopher Nagy, Managing Director Order Strategy, Co-Head of Government Relations, TD Ameritrade, and John S. Markle, Deputy General Counsel, Co-Head of Government Relations, TD Ameritrade, to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission (Apr. 21, 2010), http://www.sec.gov/comments/s7-02-10/s70210-124.pdf ("TD Ameritrade Letter"); Letter from Christopher Nagy, CEO, and Dave Lauer, President, KOR Trading LLC, to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission (Apr. 4, 2014), http://www.sec.gov/comments/s7-02-10/s70210-413.pdf ("KOR Letter").

[61] While fragmentation of the securities markets was contemplated at the time that Rules 605 and 606 were originally adopted, *see* Execution and Routing Release, *supra* note 35, 65 FR at 75414, the rapid and ongoing evolution of technologies for generating, routing, and executing orders has further spurred fragmentation. *See* Market Structure Concept Release, *supra* note 2. NMS Stock trading volume, which was previously concentrated at a relatively small set of traditional market centers, can now be executed by one of 42 ATSs, over 200 OTC market-makers, or 18 registered exchanges. *See* ATS Release, *supra* note 55. More than 200 broker-dealers (excluding ATSs) have identified themselves to FINRA as market centers that must provide monthly reports on order execution quality under Rule 605 of Regulation NMS (list available at http://apps.finra.org/datadirectory/1/marketmaker.aspx). There are currently 18 registered exchanges, and IEX has recently filed an application to become a registered securities exchange. *See* Notice of Filing of Application for Registration as a National Securities Exchange, Securities Exchange Act Release No. 75925 (Sept. 15, 2015), 80 FR 57261 (Sept. 22, 2015), *available at* https://www.sec.gov/rules/other/2015/34-75925.pdf.

B. Potential Enhancements to Execution-Quality Reports

1. Provide Retail Execution-Quality Reports at Individual Broker Level

As noted above, execution-quality and order-routing statistics today appear in separate reports, which can make it difficult for retail investors or their agents to evaluate the execution quality actually achieved by their brokers. While retail customers can see execution-quality information for venues (Rule 605 reports) and can, separately, see where their brokers route their orders (Rule 606 reports), it is not possible to use the data in these two reports to determine what execution quality a given broker's order flow actually achieves when it is routed to a particular trading venue.

Therefore, although market participants recognize that current reports enable investors to monitor execution quality,[62] some have suggested that broker-dealers should be required to produce enhanced execution-quality reports that are geared to retail investors.[63] One enhancement might be a requirement that each broker produce a report *combining* order-routing and execution-quality information so that a retail customer could evaluate the execution quality that the broker achieves at each venue to which it routes its customers' orders. Armed with this enhanced disclosure, retail customers may potentially be able to more easily compare order-execution quality among competing brokers. Retail customers might also be better able to assess the effect of any potential conflicts of interest, such as payment for order flow, on their broker's routing decisions. Further, if these reports included the total costs of trading (effective spreads plus commissions), retail customers might be better able to assess their trading costs.[64]

2. Update Execution-Quality Statistics

Equity market structure has evolved substantially since 2000, when the rules requiring execution-quality reports were originally adopted, leading some to suggest that the required information should be updated to reflect changes in the market.[65] For example, orders are routed

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[62] *See* TD Ameritrade Letter, *supra* note 60, at 6 (stating that, overall, "TD Ameritrade believes the Rule 606 data is extremely useful and provides benefit."); Letter from Richie Prager, Hubert De Jesus, Supurna Vedbrat, and Joanne Medero, Managing Directors, BlackRock, Inc., to Chair White, Securities and Exchange Commission (Sept. 12, 2014), http://www.sec.gov/comments/s7-02-10/s70210-419.pdf (addressing order routing and execution metrics and stating that "market participants are still capable of monitoring execution quality") ("BlackRock Letter").

[63] *See, e.g.*, Letter from Theodore R. Lazo, Managing Director, SIFMA, to Chair White, Securities and Exchange Commission, 12 (Oct. 24, 2014), https://www.sec.gov/comments/s7-02-10/s70210-422.pdf.

[64] *See* Battalio and Holden, *supra* note 22.

[65] *See* TD Ameritrade Letter and KOR Letter, *supra* note 60.

and executed much more swiftly today than they were 15 years ago,[66] so that requiring order-execution speed to be disclosed with much finer granularity may be helpful to meaningfully assess execution quality[67]

In addition, the use of certain types of orders—such as Immediate Or Cancel Orders or Intermarket Sweep Orders—has become increasingly common in recent years, and some have suggested that specific disclosures be developed for these or other order types.[68] Also, odd-lot orders were not tape-reportable when Rule 605 was originally adopted,[69] but, now that they are,[70] many have suggested that data from these trades be included in Rule 605 reports.[71]

Further, in recognition of the highly manual processes involved with opening markets in 2000, Rule 605 reports do not include data from opening auctions. Today, opening auctions have become much more automated, leading some to suggest they be included in execution quality statistics.[72] Finally, additional market-quality metrics have been suggested, such as the average length of time that limit orders rest on the book,[73] or the average amount of size improvement.[74]

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[66] When Rules 605 and 606 were first adopted, manual trade handling was still a common practice for a significant amount of trading volume. *See* Market Structure Concept Release, *supra* note 2. Executions occurred in a matter of a few seconds, or even as long as a few minutes. S*ee id.*, 75 FR at 3595. Now, average trade executions occur in fractions of a second. *See* Steven Quirk, Senior Vice President, Trader Group, TD Ameritrade, Testimony before the U.S. Senate Committee on Homeland Security and Governmental Affairs, Permanent Subcommittee on Investigations, Hearing on "Conflicts of Interest, Investor Loss of Confidence, and High Speed Trading in U.S. Stock Markets" (June 17, 2014) (citing statistics that average execution speed has improved by 90% since 2004—from 7 seconds to 0.7 seconds today), http://www.hsgac.senate.gov/subcommittees/investigations/hearings/conflicts-of-interest-investor-loss-of-confidence-and-high-speed-trading-in-us-stock-markets.

[67] *See* KOR Letter, *supra* note 60, at 4. Rule 605 requires market centers to report execution speeds in five "buckets," measured by the amount of time between order receipt and final execution. These buckets are (a) 0 to 9 seconds, (b) 10 to 29 seconds, (c) 30 to 59 seconds, (d) 60 to 299 seconds, and (e) 5 minutes to 30 minutes. 17 CFR 242.605(a)(i)(F)-(J).

[68] *See* TD Ameritrade Letter, *supra* note 60, *and* KOR Letter, *supra* note 60.

[69] Dissemination of odd-lot executions began on Dec. 9, 2013. *See* Equity Technical Update #2103-33, NasdaqTrader (Nov. 21, 2013), https://www.nasdaqtrader.com/TraderNews.aspx?id=ETU2013-33.

[70] *Id.*

[71] *See* TD Ameritrade Letter, *supra* note 60, *and* KOR Letter, *supra* note 60; *see also* Letter from Manisha Kimmel, Managing Director, Financial Information Forum, to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, (Oct. 22, 2014), http://www.sec.gov/comments/s7-02-10/s70210-429.pdf.

[72] *See* TD Ameritrade Letter, *supra* note 60.

[73] *See id.*

[74] *See id.*

3. Expand Order-Routing Disclosures to Institutional-Sized Orders

At the time Rules 605 and 606 were originally adopted, institutional order-handling practices were not homogenous, often varying based on the type of institution or individual representing contra-side interest, the appetite for risk at a given time, and the specific rules governing the exchange on which the order was printed.[75] Recognizing that such idiosyncrasies would have made it difficult to produce useful statistics, the Commission excluded large institutional orders from Rules 605 and 606.[76]

Today, institutional orders are treated in a more uniform fashion. Much like retail customer orders, institutional orders tend to be handled by sophisticated order-execution algorithms that break large institutional "parent" orders into smaller "child" orders that are routed to the full range of execution venues in the national market system.[77] The complexity of these order-execution algorithms and smart order-routing systems has made it difficult for institutional customers to assess the impact that particular order-routing strategies may have on the quality of their executions.[78] Though some market participants have expressed satisfaction with current order-routing disclosures and are hesitant to change parts of the market ecosystem,[79] many institutional investors have conveyed their concerns about the complexity of the equity markets, the difficulties they face in understanding how their orders are handled by their brokers, and the limitations on their ability to assess best execution.[80]

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[75] *See* Division of Market Regulation, Securities and Exchange Commission, *Market 2000: An Examination of Current Equity Market Developments*, II-14 (Jan. 1994), https://www.sec.gov/divisions/marketreg/market2000.pdf.

[76] *See* Execution and Routing Release, *supra* note 35, 65 FR at 75426.

[77] *See* Market Structure Concept Release, *supra* note 2, 75 FR at 3602.

[78] *See* Letter from Kimberly Unger, Esq., Executive Director, Security Traders Association of New York, Inc., to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission (Apr. 30, 2010), https://www.sec.gov/comments/s7-02-10/s70210-169.pdf; Letter from Joan C. Conley, Senior Vice President and Corporate Secretary, The NASDAQ OMX Group, Inc., to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission (Apr. 30, 2010), http://www.sec.gov/comments/s7-02-10/s70210-168.pdf.

[79] *See* TD Ameritrade Letter, *supra* note 60, at 6; BlackRock Letter, *supra* note 62, at 3. *See also* Letter from Leonard J. Amoruso, General Counsel, Knight Capital Group, Inc., to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission (Feb. 24, 2010), https://www.sec.gov/comments/s7-27-09/s72709-68.pdf (urging the Commission not to take action on any small part of the market ecosystem until overall consideration of the current market structure is accomplished).

[80] In recent years, some of the more-sophisticated institutional investors have begun to request, and their brokers have been providing, certain information about the brokers' routing of the institution's order flow. The nature and extent of the information provided, however, varies considerably across brokers. Standardizing customer-specific institutional-order-routing disclosures could enhance the ability of institutional investors to: (1) assess the potential for harmful information leakage concerning their orders; (2) assess the conflicts of interest their broker-dealers may face in handling their orders; (3) assess the performance of a broker-dealer in handling their orders and achieving best execution; and (4) compare the services of their routing broker-dealers. The staff notes that representatives of buy-side and sell-side institutions have suggested a standardized template for

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To address these concerns and others, the Chair has directed the Commission staff to develop a rulemaking proposal that would enhance the disclosures required of brokers with respect to their routing of institutional orders.[81]

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institutional order routing disclosures by broker-dealers. *See* Letter from Dorothy M. Donohue, Deputy General Counsel, Investment Company Institute, Stuart J. Kaswell, Executive Vice President, Managed Funds Association, and Randy Snook, Executive Vice President, SIFMA, to Chair White, Securities and Exchange Commission (Oct. 23, 2014), http://www.sec.gov/comments/s7-02-10/s70210-428.pdf.

[81] Chair White announced in June 2014 that she had asked the staff to develop a recommendation to the Commission for proposed rules that would enhance disclosures regarding broker routing of institutional orders, noting that Rule 606 "does not cover the large orders typically used by institutional investors." *See* Chair White, Address at the Sandler O'Neill & Partners, L.P. Global Exchange and Brokerage Conference: Enhancing Our Equity Market Structure (June 5, 2014), https://www.sec.gov/News/Speech/Detail/Speech/1370542004312. More recently, Chair White publicly stated in November 2015 that "The staff is preparing a recommendation that would give an investor new disclosures tailored to how the investor's trades are routed and executed – including information about order and execution sizes, price improvement, midpoint executions, and the use of indications of interest." Chair White, Statement at Open Meeting on Regulation of NMS Stock Alternative Trading Systems (Nov. 18, 2015), http://www.sec.gov/news/statement/white-open-meeting-111815.html.