MEMORANDUM

TO: SEC Market Structure Advisory Committee ("Committee")

FROM: Securities and Exchange Commission ("SEC") Division of Trading and Markets[1]

DATE: October 20, 2015

RE: Maker-Taker Fees on Equities Exchanges

To attract order flow while incentivizing market participants to provide liquidity at the most competitive prices, many exchanges and other non-exchange markets have adopted a fee structure where they pay a per-share rebate to their members to encourage them to place resting liquidity-providing orders on their trading systems. If an execution occurs, the liquidity providing "maker" receives a rebate, and the "taker" that executes against that resting order pays a fee to the market. This "maker-taker" fee model has been the subject of significant recent attention and debate, with a particular focus on the effects it may have on market structure, broker routing practices, and investor interests.

The purpose of this memorandum is to facilitate an objective assessment of maker-taker fees in the U.S. equity markets by outlining the development of the maker-taker fee model in the U.S. and summarizing the current public debate about its impact on equity market structure. The memorandum will present both the asserted advantages and disadvantages of maker-taker fee structures. Though less frequently the focus of contemporary debate, it is important to note the asserted advantages of the maker-taker fee model. Specifically, some believe the maker-taker model is an important competitive tool for exchanges and directly or indirectly can provide better prices for retail investors. On the other hand, some believe it may exacerbate conflicts of interest between brokers and their customers, contribute to market fragmentation and market complexity through the proliferation of new exchange order types, and undermine price transparency.

---

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

I. Background

As noted above, the maker-taker fee model is a pricing structure in which a market generally pays its members a per share rebate to provide (i.e., "make") liquidity in securities and assesses on them a fee to remove (i.e., "take") liquidity.[2] For example, a maker-taker market may charge $0.003 per share to take liquidity (i.e., 30 cents per 100 shares) and pay a rebate of $0.002 per share to post liquidity (i.e., 20 cents per 100 shares). In this example, the market would earn as its revenue the difference between the two of $0.001 (i.e., 10 cents per 100 shares).

The maker-taker payment model originated with electronic trading venues in the late 1990s.[3] At the time, electronic trading venues were nascent alternatives to registered exchanges and NASDAQ that competed by, among other things, charging low fees while offering fast and fully automated trading and the ability for a trader to co-locate its system close to the ECN's matching engine.[4] In 1997, the Island ECN was among the first markets to adopt maker-taker fees, which it employed to attract order flow through liquidity rebates.[5] Combined with the speed of its trading system, Island's rebates, which provided traders with a source of income in addition to the spread between their bid and offer prices, helped it develop relationships with traders and liquidity providers while incentivizing those participants to post competitive quotes to allow it to attract order flow from other markets, including NASDAQ.[6] As a result, Island's market share of reported NASDAQ trades increased to almost 13% in 1999 from roughly 3% in

---

[2] In contrast to the widespread typical maker-taker model described above, a few trading venues have adopted an "inverted" maker-taker pricing model, in which market participants are assessed a fee to provide liquidity in securities and provided a rebate to remove liquidity in securities. See, e.g., NASDAQ OMX BX Fee Schedule (as of September 2015).

[3] See, e.g., Larry Harris, "Maker-Taker Pricing Effects on Market Quotations," at 5 (Nov. 14, 2013), available at: http://bschool.huji.ac.il/.upload/hujibusiness/Maker-taker.pdf.

[4] See, e.g., Donald MacKenzie & Juan Pablo Pardo-Guerra, "Insurgent Capitalism: Island, Bricolage and the Re-Making of Finance," 43 ECONOMY & SOCIETY 153, 155 (May 20, 2014), available at: http://www.sps.ed.ac.uk/__data/assets/pdf_file/0003/97500/Island34.pdf. Island was operating during a time when advances in computing power and storage capacity facilitated electronic trading, and a rising market, particularly in technology stocks, attracted traders, including day traders and other latency sensitive traders.

[5] See, e.g., Laura Cardella, Jia Hao, & Ivalina Kalcheva, "Make and Take Fees in the U.S. Equity Market," at 6 (Apr. 1, 2015), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2149302.

[6] See id. at 4-5. See also, e.g., MacKenzie & Pardo-Guerra, supra note 4, at 173.

1997.[7] In many of the most active NASDAQ stocks, Island was the number one daily market participant.[8]

Other non-exchange alternative trading systems ("ATSs") soon followed Island in offering maker rebates and charging taker fees in an effort to attract liquidity and order flow from equities exchanges.[9] In response to the competition from non-exchange markets, many exchanges began to adopt maker-taker fees of their own.[10] By the mid-2000s, the maker-taker pricing model had gained widespread adoption as a standard pricing model in the U.S. equities market.[11]

In addition to being subject to the fee filing process under the Securities Exchange Act of 1934 ("Exchange Act"),[12] maker-taker fees in the equities markets are bounded by Rule 610 of Regulation NMS, which caps fees at $0.003 per share.[13] Prior to the implementation of this cap, exchanges, ECNs, and ATSs had competed vigorously to offer the most competitive access fees and rebates, which had resulted in a prevailing fee level of $0.003 across market centers at the time of the adoption of Rule 610.[14] The Rule 610 cap on fees indirectly limits the size of the rebates that an exchange can offer because exchanges typically use fees collected on one side of the transaction to fund the rebates they pay on the other side. The revenue earned by an exchange on transactions equals the difference between the fee charged and the rebate paid. Balancing the rebate paid with the fee charged allows an exchange to either earn a slight profit or remain revenue neutral on its trading operations.

---

7 See Cardella et al., supra note 5, at 6.

8 See id. Island expanded beyond trading NASDAQ securities after NYSE rescinded its Rule 390. See Securities Exchange Act Release No. 42758 (May 5, 2000), 65 FR 30175 (May 10, 2000) (SR-NYSE-99-48) (order approving proposed change to rescind NYSE Rule 390). See also letter from Cameron Smith, General Counsel, The Island ECN, Inc., to Jonathan Katz, Secretary, SEC (May 16, 2000), available at: https://www.sec.gov/rules/sro/ny9948/smith1.htm.

9 See, e.g., Harris, supra note 3, at 5.

10 See id.

11 See Cardella et al., supra note 5, at 5.

12 See 15 U.S.C. 78s. See also infra note 15 (discussing the immediately effective nature of fee filings).

13 See 17 CFR 242.610(c)(1).

14 See Securities Exchange Act Release No. 51808 (Jun. 9, 2005), 70 FR 37496, 37545 (Jun. 29, 2005) (File No. S7-10-04) ("NMS Adopting Release"). While some outlier markets charged fees and offered rebates in excess of $0.003 per share, competition and current business practices at the time Regulation NMS was adopted left few trading centers with fees of more than $0.003. See id. An example of an outlier market was the Attain ECN, which charged non-subscribers an access fee of $0.015 per share (i.e., $1.50 per 100 shares) to fund a large maker rebate. See Harris, supra note 3, at 5.

Exchanges are required to file all proposed rules and rule changes with the SEC, including their fees. Fee filings qualify for immediate effectiveness upon their filing with the SEC pursuant to Section 19(b)(3)(A) of the Exchange Act.[15]

With 11 operating equities exchanges and dozens of ATSs, there is vigorous price competition among the U.S. equity markets and, as a result, fees are tailored and frequently modified to attract particular types of order flow, some of which is highly fluid and price sensitive.[16] The widespread adoption of maker-taker fees in the equities markets has, however, impacted market structure. Some commenters have raised a number of concerns regarding its potential effect on investor protection and the public interest. Consequently, the maker-taker pricing model has been the subject of recent attention from legislators, regulators, market participants, and academics.

One frequently expressed critique of the maker-taker system is that it may create a conflict of interest for brokers who have a legal duty to seek best execution of their customers' orders.[17] Other commenters have highlighted market transparency concerns relating to the

---

15 See 15 U.S.C. 78s(b)(3)(A)(ii). New fees that exchanges want to impose on their members or persons using their facilities are effective on the day that an exchange files them with the SEC, and neither advance notice nor SEC action is required before an exchange may implement a fee change. Shortly after an exchange files a proposed rule change, the SEC publishes it in the Federal Register for public comment. Though fee filings are not subject to SEC approval, the SEC may, within 60 days after an exchange filed its fee change with the SEC, summarily suspend the new fee and institute proceedings to determine whether to disapprove it. The SEC may take such action when questions arise as to whether a new fee may be consistent with applicable standards of the Exchange Act. For example, a commenter may raise concerns or the SEC on its own motion may identify potential concerns with the proposal. When it institutes proceedings, the SEC solicits further comment and data to help inform its analysis of whether the proposal is consistent with the Exchange Act. The applicable statutory standards for exchanges are set forth in Section 6 of the Exchange Act, and require that an exchange's fees be an "equitable allocation" of "reasonable" fees and that they not be "designed to permit unfair discrimination." See 15 U.S.C. 78f(b)(4)-(5).

16 This paper will focus on the maker-taker pricing model on equities exchanges. Maker-taker pricing also has been adopted on some of the options markets at least for certain classes of options (e.g., the International Securities Exchange and the NASDAQ OMX PHLX exchange). Because the market structure of options markets differs from that of the equities markets, most notably the fact that standardized options must be traded on an exchange whereas a substantial portion of equities trading occurs off-exchange (and thus equities exchanges compete more directly with non-exchange venues in the "over the counter" market), this memorandum will focus specifically on equities exchanges.

17 Senators Levin and Schumer have written to the SEC Chair to urge the SEC to take action to eliminate such conflicts of interest, noting in support of their recommendation certain academic and market research into order routing decisions that suggests that the

maker-taker pricing model, criticizing the market complexity they believe is attributable to the maker-taker system.[18] Others have argued that high maker rebates necessitate high offsetting taker fees, which may cause some order flow to migrate to non-exchange venues in search of lower transaction costs.[19] These potential issues have led to recommendations to study the

---

conflict may be resulting in harm to certain types of investors. See Letter from Sen. Carl Levin (D-MI), to Mary Jo White, Chair, SEC (July 9, 2014) available at: www.hsgac.senate.gov/download/levin-letter-to-sec-chairman-mary-jo-white-re-equity-market-structure-july-15_2014 and Letter from Sen. Charles Schumer (D-NY), to Mary Schapiro, Chair, SEC (May 10, 2012) available at: http://www.schumer.senate.gov/record.cfm?id=336748&. A recent academic paper analyzed selected market data and suggests that a significant number of retail firms route nonmarketable orders to the venue offering the highest rebate, and do so in a manner that the authors believe might not be consistent with the brokers' duty of best execution. See Robert Battalio, Shane A. Corwin, and Robert Jennings, "Can Brokers Have it All? On the Relation Between Make-Take Fees and Limit Order Execution Quality," at 5 (Mar. 31, 2015), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2367462&download=yes.

18 The Securities Industry Financial Markets Association ("SIFMA") authored a New York Times editorial criticizing the market complexity attributable to the maker-taker system and recommending that the SEC respond by reducing or eliminating access fees. See Curt Bradbury, Market Structure Task Force Chair, Board of Directors, SIFMA, and Kenneth E. Bentsen Jr., President and Chief Executive Officer, SIFMA, Opinion, "How to Improve Market Structure," N.Y. TIMES (Jul. 14, 2014), available at: http://dealbook.nytimes.com/2014/07/14/how-to-improve-market-structure/?_r=0. Finance Professor Larry Harris concludes that maker-taker pricing has introduced a transparency problem into the markets, as it effectively allows traders to quote in subpennies without violating the Regulation NMS prohibition on subpenny quotations, and also creates agency problems between brokers and their clients. See Harris, supra note 3, at 24-25. Stanislav Dolgopolov suggests that the maker-taker pricing model may be deliberately nontransparent, disproportionally benefit certain market participants, and lead to distortions of the duty of best execution that can, in egregious cases, rise to the level of securities fraud. See Stanislav Dolgopolov, "The Maker-Taker Pricing Model and its Impact on the Securities Market Structure: A Can of Worms for Securities Fraud?", 8 VA. L. & BUS. REV. 231, 270 (2014), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2399821.

19 See, e.g., Letter from Richard Steiner, Global Equities Liaison to Regulatory & Government Affairs, RBC Capital Markets LLC, to Elizabeth Murphy, Secretary, SEC, at 4 (Nov. 22, 2013) ("RBC Capital Markets Letter"), available at: https://www.sec.gov/comments/s7-02-10/s70210-411.pdf. Some have observed that maker-taker rebates also may help exchanges compete with off-exchange payment for order flow arrangements, in which wholesale broker-dealers purchase retail order flow for trading off-exchange. See, e.g., Jean-Edouard Colliard & Thierry Foucault, "Trading Fees and Efficiency in Limit Order Markets" at n.13, Oxford University Press (Sept. 1, 2012), available at: http://thierryfoucault.com/publications/research-papers/ ("Negative

maker-taker pricing model in greater detail[20] and consider alternative frameworks.[21]

Equities exchanges have responded in a variety of ways to the recent criticism of the maker-taker fee structure. For example, Intercontinental Exchange Group, Inc. ("ICE"), which owns, among other things, the New York Stock Exchange, suggests a "grand bargain" for equities market structure that would, among other things, ban maker-taker pricing schemes at trading venues because in their view they add to market complexity and the appearance of conflicts of interests,[22] reduce the access fee cap for trading centers from $0.003 per share to

---

take fees are payments to investors submitting market orders. They are similar to 'payments for order flow,' that is, monetary inducements given by dealers or exchanges to brokers sending them orders, with a commitment to execute brokers' orders at the best standing quotes. One important difference between payments for order flow and rebates for takers is that the former are usually contingent on investors' characteristics (e.g., retail vs. institutions) while the latter are not."). See also Cardella et al., supra note 5, at n. 11, and Katya Malinova & Andreas Park, "Subsidizing Liquidity: The Impact of Make/Take Fees on Market Quality," 509, 512 (Apr. 2015), available at: http://onlinelibrary.wiley.com/doi/10.1111/jofi.12230/abstract.

20 The Consumer Federation of America has suggested that the maker-taker model distorts trading incentives and recommended that the SEC conduct a pilot project to study the effects of eliminating maker-taker pricing. See Letter from Micah Hauptman, Financial Services Counsel, Consumer Federation of America, to Brent J. Fields, Secretary, SEC, at 2 (Dec. 22, 2014), available at: https://www.sec.gov/comments/4-657/4657-64.pdf. Further acknowledging concerns regarding the potential for maker-taker fees to harm certain investors, Senator McCain has advocated for more transparency in maker-taker fees, allowing researchers to study the issue in greater detail. See Sen. John McCain (R-AZ), Statement to 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," (Jun. 17, 2014), available at: http://www.hsgac.senate.gov/subcommittees/investigations/hearings/conflicts-of-interest-investor-loss-of-confidence-and-high-speed-trading-in-us-stock-markets.

21 RBC Capital Markets has suggested that the SEC conduct a pilot program to collect data to assess whether the maker-taker pricing model may have a deleterious effect on the overall market, and consider alternatives to maker-taker pricing, including eliminating rebates and mandating that trading venues be required to implement a rebate-free pricing structure. See RBC Capital Markets Letter, supra note 19, at 3.

22 See Jeffrey Sprecher, Chairman and Chief Executive Officer, ICE, Statement to the U.S. Senate Banking, Housing and Urban Affairs Committee, Hearing on "The Role of Regulation in Shaping Equity Market Structure and Electronic Trading," (Jul. 8, 2014), available at: http://www.banking.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=2e98337f-d5c5-490f-80e7-6c1c81af7243.

$0.0005 per share, and contemporaneously adopt an industry-wide "trade-at" rule.[23]

BATS Global Markets, Inc. ("BATS") also suggested reforms to the U.S. equity markets in an open letter to U.S. securities industry participants.[24] In its letter, BATS suggests tailoring

---

23 See Bradley Hope & Scott Patterson, "NYSE Plan Would Revamp Trading," WALL ST. J. (Dec. 17, 2014), available at: http://www.wsj.com/articles/intercontinental-exchange-proposing-major-stock-market-overhaul-1418844900. ICE argues that since 2005, when the fee cap of $0.003 per share was chosen, competitive and technological advancements have led to decreased costs (spreads and commissions), and as a result, access fees have become a larger portion of overall transaction costs. See "ICE's Six Recommendations for Reforming Markets," WALL ST. J. (Dec. 18, 2014), available at: http://blogs.wsj.com/moneybeat/2014/12/18/ices-six-recommendations-for-reforming-markets/. In addition to the adoption of a trade-at rule and a reduction in the access fee cap, ICE also advocates combating market complexity by eliminating maker-taker pricing, taking the view that the potential conflicts and complexity relating to the maker-taker model outweigh its benefits. See id. ICE also calls for increased disclosure around the operation of market centers, the establishment of a minimum market share threshold before a market center's quotes would be protected, and reforms relating to market data feeds. See id. Some commentators have argued that the ICE proposal could benefit the New York Stock Exchange LLC ("NYSE") and large banks at the expense of retail investors and electronic market makers. See, e.g., David Weisberger, "The Grand Bargain?," TRADERS MAGAZINE (Feb. 10, 2015), available at: http://www.tradersmagazine.com/news/technology/was-electronic-trading-such-a-grand-bargain-113454-1.html and Larry Tabb, "The Grand Bargain: A Great Start, But Don't Hold Your Breath," TABB FORUM (Jan. 6, 2015), available at: http://tabbforum.com/opinions/the-grand-bargain-a-great-start-but-don't-hold-your-breath.

24 See Joe Ratterman, Chief Executive Officer, & Chris Concannon, President, BATS, "Open Letter to U.S. Securities Industry Participants Re: Market Structure Reform Discussion," at 1 (Jan. 6, 2015) ("BATS Open Letter"), available at: http://cdn.batstrading.com/resources/newsletters/OpenLetter010615.pdf. BATS subsequently submitted a petition for rulemaking requesting that the SEC take action on several of the market structure reforms outlined in its Open Letter. See Letter from Joe Ratterman, Chief Executive Officer, BATS to Brent J. Fields, Secretary, SEC (Jan. 21, 2015), available at: https://www.sec.gov/rules/petitions/2015/petn4-680.pdf. In its letter, BATS also called for more transparency with respect to brokers' order handling decisions by suggesting that the SEC undertake a review of Rules 605 and 606 of Regulation NMS and require additional disclosure regarding execution quality on a broker by broker basis. See BATS Open Letter, supra note 24, at 4. BATS further suggested that Regulation NMS be revised so that the trade-through rule would not apply until an exchange or other protected market center achieves greater than 1% share of average daily volume in any three-month period. See id. at 5. Similarly, BATS suggested that the same threshold apply before an exchange or other market center could receive any NMS plan market data revenue. See id.

certain aspects of the equity market structure to recognize differences between liquid and illiquid securities. Specifically, BATS advocates for an 80% reduction in the Rule 610 access fee cap for the most liquid securities and a tiered approach to access fees for less liquid securities, opining that the Rule 610 cap needs to be "reevaluated for potential market distortions given the substantially altered broker models and reductions in commissions since the implementation of Regulation NMS."[25] BATS recognized the role of liquidity rebates in narrowing the spread in illiquid securities, and that such rebates are transparent, rules-based, and available to all, but advocated for an access fee reduction for the most liquid securities to as low as $0.0005, where access fees would be tiered upward from that level for moderately liquid and illiquid securities based on a security's characteristics.[26] In contrast to the ICE/NYSE proposal, however, BATS does not recommend adopting an industry wide trade-at rule, arguing that ICE's "grand bargain" may "ultimately be harmful to end investors" to the extent it may result in "potentially wider spreads as well as fewer and inferior execution choices resulting from restrictions on competition."[27] BATS argues that its suggested tiered approach to access fees would preserve the benefits of the current market structure (including maker-taker fees) for less liquid securities, while reducing conflicts or the perception of conflicts with respect to highly liquid securities that "no longer require liquidity incentives."[28]

To test the premise that high access fees may discourage the use of markets that publicly display their posted best bid and offer ("lit markets"), NASDAQ conducted an access fee experiment in which it significantly lowered access fees and rebates in 14 stocks for transactions effected on the NASDAQ Stock Market over a four month period.[29] The NASDAQ Pilot began on February 2, 2015, and lowered the access fee to remove liquidity from $0.003 to $0.0005 and reduced the credit to display liquidity to $0.0004 (such credits otherwise ranged from $0.0015 to $0.00305).[30] NASDAQ's stated intent in conducting the pilot was to test assertions that high

---

25 BATS Open Letter, supra note 24, at 1, 3.

26 See id. at 3-4 ("BATS believes that exchange liquidity rebates, which are transparent, rule-based, and open to all, provide a meaningful incentive for liquidity providers to display narrow spreads by mitigating the potential impact of being adversely selected.").

27 Id. at 3.

28 See id. at 4. BATS opposes a federally imposed ban on maker-taker fees, which it believes would be anticompetitive. See id. at 1.

29 See Securities Exchange Act Release No. 73967 (December 30, 2014), 80 FR 594 (January 6, 2015) (SR-NASDAQ-2014-128) ("NASDAQ Pilot"). The pre-selected list of 14 stocks that participated in the pilot included seven NASDAQ-listed names (AAL, MU, FEYE, GPRO, GRPN, SIRI, ZNGA) and seven NYSE-listed names (BAC, GE, KMI, RAD, RIG, S, TWTR).

30 NASDAQ also reduced the credit in the 14 stocks for adding non-displayed midpoint liquidity to $0.0002 per share. See id. The NASDAQ Pilot ended on June 15, 2015. See Securities Exchange Act Release No. 75261 (June 22, 2015), 80 FR 36877 (June 26, 2015, 2015) (SR-NASDAQ-2015-062).

access fees discourage the use of public markets and to generate "much-needed data about the impact of access fees on the level of off-exchange trading and, potentially, on price discovery, trading costs, displayed liquidity and execution quality as well."[31] NASDAQ provided data and prepared reports of the effects of the pilot that analyzed trading in the 14 stocks compared to a set of similar non-pilot control stocks. With respect to market share, NASDAQ expected offsetting effects, where the lower taker fee would be expected to increase market share and the lower rebate would reduce market share.[32] In the first month of its pilot, NASDAQ observed a 2.9% decrease in market share in the 14 stocks compared to a 0.9% decrease in the control stocks.[33] With respect to displayed liquidity, NASDAQ observed an expected decrease in response to the lower rebate incentive to display on NASDAQ.[34] For example, NASDAQ's time at the NBBO in the 14 stocks declined 4.9% compared to 0.3% for the control group.[35] NASDAQ's data thus showed statistically significant effects resulting from significant reductions in the access fees to take liquidity and related credits to post liquidity on NASDAQ in

---

31 See id. at 595. SIFMA commented on NASDAQ's proposal, which was submitted as an immediately effective fee filing, to note that while it supported NASDAQ's efforts to experiment with different fee structures, it thought that the limited scope of the pilot would limit the utility of any data and make it unreasonable to expect meaningful insight that could be applied in the broader market-wide context. See Letter from Theodore R. Lazo, Managing Director and Associate General Counsel, SIFMA, to Brent J. Fields, Secretary, SEC, dated January 30, 2015, ("Lazo Letter") available at: http://www.sec.gov/comments/sr-nasdaq-2014-128/nasdaq2014128-1.pdf. Among other things, SIFMA noted that regulatory requirements, such as Rule 611 of Regulation NMS (the "Order Protection Rule") (17 CFR 242.611), could skew the results of the pilot, as well as the fact that not all brokers have the ability to make routing decisions on a symbol-by-symbol basis and therefore may not be able to change their routing behavior in 14 symbols during the pilot. See id. at 3. NASDAQ noted its belief, however, that its pilot was large enough to induce behavioral changes with statistically and economically measurable changes. See NASDAQ Access Fee Experiment March 2015 Report, at 3, available at: http://www.nasdaqomx.com/digitalAssets/97/97754_nasdaq-access-fee-experiment---first-report.pdf. See also NASDAQ Access Fee Experiment May 2015 Report, at 2, available at: http://www.nasdaqomx.com/digitalAssets/98/98718_accessfeereporttwo.pdf.

32 See NASDAQ Access Fee Experiment March 2015 Report, supra note 31, at 1.

33 See id. See also NASDAQ Access Fee Experiment May 2015 Report, supra note 31, at 5 (noting that the observed change in market share is statistically significant).

34 See NASDAQ Access Fee Experiment March 2015 Report, supra note 31, at 2. See also NASDAQ Access Fee Experiment May 2015 Report, supra note 31, at 4 (noting that the changes in displayed liquidity during the second and third month of the NASDAQ Pilot were similar to those reported in the first month's report).

35 See NASDAQ Access Fee Experiment March 2015 Report, supra note 31, at 2. See also NASDAQ Access Fee Experiment May 2015 Report, supra note 31, at 2.

the 14 pilot stocks.[36] Commenters have suggested, given the limited number of stocks included in the pilot, its short duration, and the fact that it is limited in scope to transactions in those 14 stocks on NASDAQ, it is unclear whether the effects NASDAQ is observing also would be observed over a wider universe of securities measured across the equities markets and that it also is unclear the extent to which NASDAQ's conclusions could be applied to a broader market-wide analysis of access fees and rebates.[37]

Finally, the TMX Group, which operates the Toronto Stock Exchange, recently announced that its exchanges will begin a "measured rate reduction program" to reduce transaction rebates paid to liquidity providers by an average of 31% and reduce trading fees by up to 34% with an average reduction of 26% across all securities and participants.[38] In its announcement, TMX explained that "[a] drastic reduction or outright removal of the maker-taker model can have a negative impact on the market, including increased spreads, rise in volatility and loss of liquidity. To address these challenges, TMX is instead introducing a program of phased reductions in maker-taker rates that is designed to gradually lower dealer active trading costs, minimize unnecessary intermediation and increase investor confidence. This approach provides the ability to carefully monitor and actively manage the market impact of the changes."[39] The first phase of fee reductions was effective June 1, 2015, and only involved Canadian-listed stocks that are not dually listed in the U.S.[40] Subsequent phases will be implemented in 6 to 9 month intervals over the next two years.[41]

---

36 See NASDAQ Access Fee Experiment March 2015 Report, supra note 31. See also NASDAQ Access Fee Experiment May 2015 Report, supra note 31.

37 See e.g., Lazo Letter, supra note 31 (commenting on SR-NASDAQ-2014-128, and noting that SIFMA "[does] not believe that the limited fee change proposed in [NASDAQ's] filing should either suggest that it will – or be expected to – provide persuasive data regarding the important market structure questions that are referenced").

38 See "TMX Group Announces New Equity Trading Fee Program," (May 4, 2015), available at: http://www.tmx.com/newsroom/press-releases?id=310.

39 See id.

40 See id.

41 See id.

II. Analysis of Maker-Taker Model

1. Advantages of Maker-Taker Fees

A. The Maker-Taker Fee Model is a Significant Competitive Tool for Exchanges

National securities exchanges play a critical role in the public price discovery process, as market participants generally look to prices displayed on the lit markets in making their trading and investment decisions.[42] Venues that do not display their trading interest publicly, such as "dark pool" ATSs as well as wholesale broker-dealers that internalize customer order flow, depend on the public exchanges for the reference prices at which they execute trades.[43] The displayed prices generated by exchanges therefore create a positive external reference and help assure the efficient functioning of our capital markets.[44]

In recent years, however, lit venues have been losing market share for a variety of reasons to non-exchange dark venues that do not display quotes or orders.[45] From February

---

42 See, e.g., Letter from Mortimer J. Buckley, Managing Director and Chief Investment Officer, The Vanguard Group, Inc. to Brent J. Fields, Secretary, SEC, dated December 19, 2014, available at: http://www.sec.gov/comments/4-657/4657-57.pdf (commenting on the Tick Size Pilot stating that "[p]ublicly displayed liquidity is the foundation of a transparent and efficient market and rules that encourage the public competition of orders facilitate meaningful price discovery, increase liquidity, reduce spreads, and lower transaction costs").

43 See, e.g., Securities Exchange Act Release No. 61358 (Jan. 14, 2010), 75 FR 3594, 3612 (January 21, 2010) (File No. S7–02–10) ("Concept Release on Equity Market Structure") (noting that "[a]lthough they offer liquidity that is not included in the consolidated quotation data, dark pools and OTC market makers generally trade with reference to the best displayed quotations and execute orders at prices that are equal to or better than the NBBO").

44 See id.

45 Today there are more than 30 ATSs in operation, although not all of them provide a platform for trading equity securities, and 11 operating registered national securities exchanges that trade equities. See, e.g., Laura Tuttle, Alternative Trading Systems: Description of ATS Trading in National Market System Stocks, at 2, Oct. 2013, available at: http://www.sec.gov/marketstructure/research/alternative-trading-systems-march-2014.pdf (noting that, in 2013, 35 broker-dealer firms operated 44 ATSs that actively trade NMS stocks). A list of alternative trading systems registered with the Commission is available at: http://www.sec.gov/foia/ats/atslist0715.pdf (last updated July 2015). Consequently, exchanges are competing for order flow against other exchanges, as well as ATSs and more than 200 internalizing broker-dealers. See, e.g., Concept Release on Equity Market Structure, supra note 43. Currently, "over 30 percent of the total national market system volume of shares traded occurs over the counter" and ATSs account for a significant percentage of that OTC volume. See FINRA News Release, "FINRA Makes

2005 to February 2014, the share of volume executed by displayed venues declined from 70.6% to 61.4% for NASDAQ stocks and from 87.0% to 65.4% for NYSE stocks.[46] During the same period, the collective share of dark venue trading in NASDAQ stocks increased from 29% to 39%, and the collective share of dark venue trading in NYSE stocks increased from 13% to 35%.[47]

If exchanges' competitive viability vis-à-vis non-exchange venues is materially diminished to the point where it impacts the exchanges' central role as the market's core price discovery mechanism, then investor protection and the public interest could be negatively affected as the relevance of public quotes in assessing the value of secondary market transactions would be greatly undermined.[48]

For various reasons, the regulatory regimes applicable to non-exchange venues permit them substantially more flexibility than exchanges to "segment" order flow by providing users with the ability to limit their interaction to certain types of market participants, and by customizing fee structures, execution priorities, and other features of their trading systems.[49]

Dark Pool Data Available Free to the Investing Public," June 2, 2014, available at: http://www.finra.org/newsroom/2014/finra-makes-dark-pool-data-available-free-investing-public. The Financial Industry Regulatory Authority ("FINRA") has recently begun to make certain ATS data publicly available, allowing the public to see total shares traded, on a delayed basis and aggregated weekly, on a security-by-security basis and ATS-by-ATS basis (including dark pools). See id.

46 See Memorandum on Rule 611 of Regulation NMS from the SEC Division of Trading and Markets to the SEC Market Structure Advisory Committee, at 10-11, 21 (Apr. 30, 2015), available at: https://www.sec.gov/spotlight/emsac/memo-rule-611-regulation-nms.pdf. Displayed venues include exchanges, ECNs, and any facilities of a national securities association.

47 See id. at 17.

48 See, e.g., NMS Adopting Release, supra note 14, at 37499 ("The difficulty, however, is that competition among multiple markets trading the same stocks can detract from the most vigorous competition among orders in an individual stock, thereby impeding efficient price discovery for orders of all sizes…. Impaired price discovery could cause market prices to deviate from fundamental values, reduce market depth and liquidity, and create excessive short-term volatility that is harmful to long-term investors and listed companies. More broadly, when market prices do not reflect fundamental values, resources will be misallocated within the economy and economic efficiency—as well as market efficiency—will be impaired.").

49 See Securities Exchange Act Release No. 40760 (Dec. 8, 1988), 63 FR 70844 (Dec. 22, 1998) (File No. S7-12-98) ("Regulation ATS; Final rules"). See also, e.g., Tuttle, supra note 45, at 1. ("While ATSs operate markets similar in some ways to the registered exchanges, there are important institutional differences. Although both exchanges and ATSs provide marketplaces for buyers and sellers to transact in securities, ATSs do not necessarily provide public information on the best prices available to traders within their

Broker-dealers that control customer order flow tend to execute those orders internally or route them to an ATS they operate or other venues (e.g., wholesale broker-dealers) with which they have a relationship before potentially sending an order to the public exchanges often as a last resort.[50] Doing so allows the broker-dealer to capture a benefit, effectively monetizing a portion of the value of its customer order flow either through trading against it directly or from receiving payment from a wholesale broker.[51]

The payment of transaction-based rebates is a primary tool that exchanges use to compete with off-exchange venues.[52] Accordingly, most exchanges have adopted maker-taker fee structures to incentivize broker-dealers to direct order flow to them in an effort to compete with off-exchange venues as well as other exchanges.[53] If the maker-taker model were eliminated or substantially impaired, more trading interest might be redirected from exchanges to non-exchange execution venues and the exchanges' ability to compete thus could be undermined, which could have a detrimental effect on the public price discovery process.[54]

---

system. They also do not set rules governing the conduct of subscribers and they perform no self-regulation, while exchanges perform all of these functions. Additionally, because ATSs are regulated as broker-dealers, they comply with a different set of regulations than traditional exchanges.").

50 See, e.g., Concept Release on Equity Market Structure, supra note 43, at 3599-3600 ("Broker-dealers that act as OTC market makers and block positioners conduct their business primarily by directly negotiating with customers or with other broker-dealers representing customer orders. OTC market makers, for example, appear to handle a very large percentage of marketable (immediately executable) order flow of individual investors that is routed by retail brokerage firms. A review of the order routing disclosures required by Rule 606 of Regulation NMS of eight broker-dealers with significant retail customer accounts reveals that nearly 100% of their customer market orders are routed to OTC market makers.").

51 See id. at 3600 (noting that a review of Rule 606 reports at the time indicated that "retail brokers either receive payment for order flow in connection with the routing of orders or are affiliated with an OTC market maker that executes the orders.").

52 See, e.g., Harris, supra note 3, at 5.

53 See id. See also Colliard & Foucault, supra note 19 (citing to authors who have observed that maker-taker rebates may help exchanges compete with off-exchange payment for order flow arrangements).

54 However, some argue that the elimination of the maker-taker model would promote more exchange trading because access fees would decrease, which would result in order flow migrating from dark to lit venues. See RBC Capital Markets Letter, supra note 19, at 4. Others argue that rebates promote price discovery in the public markets and positively impact market structure by enhancing competition and narrowing spreads. See Letter from Richie Prager, Managing Director, Head of Trading and Liquidity Strategies, BlackRock, Inc., to Mary Jo White, Chair, SEC, at 2 (Sep. 12, 2014), available at: http://www.sec.gov/comments/s7-02-10/s70210-419.pdf; BlackRock, Inc., Viewpoint,

One potential mechanism to offset any loss or impairment of the maker-taker fee model for exchanges to use as a tool to compete with off-exchange venues would be the implementation of a "trade-at" rule, as has been suggested by ICE.[55] Such a rule would prevent price matching by a trading center not displaying the best price, thus effectively providing non-rebate based incentives for market participants to display orders and execute transactions.[56] Specifically, subject to certain limitations, a trade-at rule would prohibit any trading center from executing a trade at the prevailing best market price unless the trading center was displaying accessible interest at that price at the time it received the incoming contra-side order.[57] A trading center that was not displaying interest at the best market price at the time it received an incoming marketable order generally would not be able to execute the incoming order without offering economically significant price improvement.[58] Such a rule could potentially help exchanges retain market share in the absence of maker-taker fees, and in so doing could help promote pre-trade public price discovery and create incentives for market participants to display quotations at competitive prices.

B. The Maker-Taker Model May Benefit Retail Investors by Narrowing Posted Spreads

Another important potential benefit of maker-taker fee structures is that they artificially narrow displayed spreads because the liquidity rebate effectively subsidizes the posting of liquidity.[59] Broker-dealers that today execute virtually all retail marketable order flow off-

---

"U.S. Equity Market Structure: An Investor Perspective," at 7 (Apr. 2014), available at: https://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-us-equity-market-structure-april-2014.pdf ("Incentives to provide liquidity promote price discovery in public markets, tighter spreads and competition and choice among trading venues. It is not the maker-taker model, but rather the magnitude of impact from access fees and misalignment of economic interests among market participants that raises concern.").

55 See ICE's Six Recommendations for Reforming Markets, supra note 23 and accompanying text.

56 See id.

57 See id.

58 Note that there could be a variety of approaches on the details of a trade-at rule. For example, certain exceptions from a trade-at rule could be appropriate for retail orders, block orders, and certain negotiated transactions. For an example of how a trade-at rule might be formulated, see Securities Exchange Act Release Nos. 72460 (Jun. 24, 2014), 79 FR 36840 (Jun. 30, 2014) (File No. 4-657) ("Tick Size Pilot Order") and 74892 (May 6, 2015), 80 FR 27514 (May 13, 2015) (order approving the plan).

59 See, e.g., Harris, supra note 3, at 1 ("The exchange maker-taker pricing scheme affects incentives to take or make markets resulting in narrower bid-ask spreads."). See also Michael Brolley & Katya Malinova, "Informed Trading and Maker-Taker Fees in a Low-Latency Limit Order Market," (Oct. 24, 2013), at 2, available at:

exchange either match or improve upon the best price displayed on exchanges.[60] Thus, to the extent displayed prices are artificially aggressive, this inures to the benefit of retail investors in the form of improved execution prices.[61]

For example, consider a liquidity provider that is willing to post a quote to buy 100 shares at $10.00 per share and sell 100 shares at $10.02 per share. This quote would constitute a spread of 2 cents (i.e., a 2-cent difference between the prices at which the trader is willing to buy and sell). If the exchange offers a rebate of .25 cents per share, then the liquidity provider may be willing, as market conditions and its own risk profile permits, to post a quote to buy 100 shares at $10.01, where it would not be willing to do so in the absence of such a rebate.[62]

---

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2178102 ("If a maker rebate is introduced in competitive markets, the bid-ask spread will decline by (twice) the maker rebate."); Shawn O'Donoghue, "The Effect of Maker-Taker Fees on Investor Order Choice and Execution Quality in U.S. Stock Markets," (Jan. 23, 2015), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2607302 (the author summarizes his theoretical model, which predicts that as the taker fee and maker rebate increase, holding constant the amount kept as profit by the exchange: (1) the bid-ask spread declines, (2) the total trading cost increases, (3) the trader participation falls, (4) the proportion of marketable order shares rises, and (5) the non-marketable limit order fill rate increases).

60 See Concept Release on Equity Market Structure, supra note 43. See also Robert Bartlett & Justin McCrary, "Dark Trading at the Midpoint: Pricing Rules, Order Flow and Price Discovery" (Feb. 12, 2015), available at: http://www.stern.nyu.edu/sites/default/files/assets/documents/2%20Bartlett%20and%20McCrary%20Shall%20We%20Haggle.pdf.

61 Benefits to retail investors also could be impacted by the brokerage commissions investors pay for their orders. For orders executed off-exchange, to the extent a broker can receive a rebate or other form of payment, it may allow the broker to offer lower fixed commissions. See, e.g., O'Donoghue, supra note 59, at 2-3 (noting that "investors pay a flat-rate commission per trade to a broker, and the broker, in turn, fills the order. Customers do not typically know where the order executes," but if the broker's trading costs increase then the "commission adjusts to recover the broker's costs"). On the other hand, investor non-marketable orders that are sent to an exchange may face increased risk of non-execution if sent to an exchange with a high liquidity rebate, but also high taker fees. See, e.g., Battalio, Corwin & Jennings, supra note 17, at 2.

62 Since Rule 612 of Regulation NMS (17 CFR 242.612) prohibits market participants from displaying, ranking, or accepting quotations, orders, or indications of interest in NMS stocks in an increment of less than $0.01 (unless the price of the quotation is less than $1.00), the quote to buy could not be displayed at an amount between $10.00 and $10.01, such as $10.0025 (i.e., the original $10.00 plus the rebate that liquidity provider would receive from the exchange). See infra notes 158 and 159 and accompanying text (discussing Rule 612).

From the retail perspective, the potential narrowing of spreads is very important because much of the marketable order flow from retail customers (i.e., order flow from retail customers that is capable of being executed at or better than the then-prevailing market prices when the order is received by the broker-dealer) gets executed at or better than the national best bid or offer ("NBBO") at the time of order receipt.[63]

If the maker-taker pricing model did not exist, then quoted prices could worsen for some securities where natural liquidity is not otherwise sufficient to maintain a narrow spread, which could cause the NBBO in such securities to widen.[64] While the resulting worse execution price may be a modest difference for a single trade of 100 shares, the impact could be considerably compounded for all orders across the entire market. Thus, all else being equal, if the maker-taker model was eliminated or substantially impaired, retail execution quality could suffer in stocks where maker-taker fees narrow the displayed quote, resulting in less money in the pockets of retail investors.

2. Criticisms of Maker-Taker Fees

A. Conflict of Interest Between Brokers and Their Customers

Brokers can choose from dozens of trading venues when routing customer orders. When deciding where to route a customer order for execution, the duty of "best execution" requires a

---

63 See, e.g., Concept Release on Equity Market Structure, supra note 43, at 3612 (noting that "dark pools and OTC market makers generally trade with reference to the best displayed quotations and execute orders at prices that are equal to or better than the NBBO. Indeed, all dark pools and OTC market makers are covered by the trade-through restrictions of Rule 611 and, subject to limited exceptions, cannot execute transactions at prices that are inferior to the best displayed prices"). For example, consider an exchange quoting a best bid to buy 100 shares of stock at $10.00 per share and a best offer to sell 100 shares of the stock at $10.03 per share, and assume that the exchange's quote is the best quote among all exchanges (thus making it the NBBO). If a broker receives a customer market order to sell 100 shares of that stock, the broker may trade against it as principal off-exchange rather than send the order to an exchange where the broker will have to pay a fee for its customer's order to trade against the exchange's posted quote. Unless the broker is willing to provide price improvement to its customer, it likely would use the national best bid of $10.00 as its reference (because that is the price that the customer sees and the price that the customer would receive if the broker sent a market order to sell to the exchange, i.e., the customer's order to sell would match against the posted best bid) and buy 50 shares from its customer at $10.00.

64 In the example in footnote 63, the NBBO in the absence of a maker-taker fee model's liquidity posting incentive might instead be $9.99 to buy and $10.04 to sell, in which case the customer order to sell would have been executed by the broker at the best bid price of $9.99 instead of $10.00. The result would be that the customer would receive a price that is 1-cent worse per share on his order to sell 50 shares, which is a difference of 50 cents total.

broker to seek the best execution available for its customer's order.[65] In particular, brokers should execute a customer's trade at the most favorable terms reasonably available under the circumstances.[66] Brokers also must conduct regular and rigorous review of their order routing to evaluate which market venues offer the most favorable terms of execution, including, for example, execution price, execution speed, and the likelihood that the trade will be executed.[67]

The maker-taker pricing model presents a potential conflict of interest between brokers and their customers that results from the way in which fees and rebates are assessed. Broker-dealers that are members of an exchange pay fees to and receive rebates from the exchange for each transaction they execute on it, but broker-dealers typically do not pass back those fees and rebates to their customers.[68] Accordingly, if a broker-dealer can earn a rebate for routing its customer's order to a certain venue – and keep that rebate for itself – the broker-dealer may have an incentive to route to the venue with the highest rebate, rather than diligently search out the venue likely to deliver the best execution of its customer's order.[69] A similar conflict may exist for taker fees, as broker-dealers may seek to minimize their trading costs by routing to the

---

65 A broker-dealer's duty of best execution derives from common law agency principles and fiduciary obligations, and is incorporated in self-regulatory organization rules and, through judicial and SEC decisions, the antifraud provisions of the federal securities laws. See NMS Adopting Release, supra note 14, at 37538. FINRA, among other self-regulatory organizations, has codified a duty of best execution into its rules. See FINRA Rule 5310. Accordingly, violations by a broker of its duty of best execution exposes the broker to potential liability under the antifraud provisions of the Exchange Act, as well as potential discipline under applicable self-regulatory organization rules.

66 See NMS Adopting Release, supra note 14, at 37538. FINRA Rule 5310 (Best Execution and Interpositioning) requires brokers to use "reasonable diligence to ascertain the best market for the subject security and buy or sell in that market so that the resultant price to the customer is as favorable as possible under prevailing market conditions." Factors that may be considered in determining "reasonable diligence" include the character of the market for the security (e.g., price, volatility, relative liquidity, and pressure on available communications), the size and type of transaction, the number of markets checked, the accessibility of the quotation, and the terms and conditions of the order which result in the transaction, as communicated to the member and the persons associated with the member. See FINRA Rule 5310(a).

67 See, e.g., FINRA Rule 5310, Supplementary Material .09(b).

68 See, e.g., Battalio, Corwin & Jennings, supra note 17, at 2.

69 See id. ("If investors choose brokers based primarily on commissions (perhaps because they lack the sophistication and/or the necessary information to evaluate limit order execution quality), it may be profit maximizing for brokers to focus on liquidity rebates rather than the probability of limit order execution when making routing decisions.").

execution venue with the lowest fees.[70] Maker-taker fees, therefore, result in a potential misalignment between the broker's own interests and its obligation to seek the best execution for its customer's order.[71]

Perhaps somewhat counter-intuitively, the venues that offer the highest rebates and lowest fees may not provide the best execution of customer orders, given the type of order flow they tend to attract.[72] As noted above, for nonmarketable orders,[73] brokers may be incentivized to route customer orders to rest on a trading venue with the highest maker rebate. However, venues with high maker rebates generally charge high taker fees to pay for those high rebates, so they tend to be ranked low on a broker's list of market centers ("routing tables") to which the broker would seek to route marketable orders that take liquidity.[74] All else being equal, a price-sensitive market participant is more likely to route an order to take liquidity from an exchange with a lower, rather than higher taker fee. As a result, nonmarketable orders sent to rest on trading venues with high taker fees may experience lower fill rates.[75] They may also actually be

---

70 See, e.g., O'Donoghue, supra note 59, at 2, ("Brokers have a financial incentive to execute marketable orders away from the equity exchanges to avoid the taker fee and are rewarded with rebates for executing non-marketable limit orders to the exchanges.").

71 See, e.g., Battalio, Corwin & Jennings, supra note 17, at 1-2. See also, e.g., BlackRock Viewpoint, supra note 54, at 7 (citing access fee disparities of up to 0.6 cents per share between taking and making on different markets). In the context of routing customer orders, the Order Protection Rule requires exchanges to establish, maintain, and enforce written policies and procedures reasonably designed to prevent the execution of trades at prices inferior to protected quotations displayed by other trading centers, subject to an applicable exception. That rule, however, does not specify where a trade must occur if several trading venues have the best posted price. Consequently, differences in exchanges' fee schedules can influence brokers' routing decisions when price is not the determining factor. See, e.g., Jeffrey Sprecher, Chairman and Chief Executive Officer, Intercontinental Exchange Group, Inc., Transcript, 15th Annual Credit Suisse Financial Services Forum, Question and Answer Section, at 7 (Feb. 12, 2014) ("[Brokers] have to both thread the needle of finding the best price for their customer and also finding a rebate that allows them to stay in business."), available at: http://ir.theice.com/~/media/Files/I/Ice-IR/events-presentations/transcript/csfb-transcript-2-2014.pdf; BlackRock Viewpoint, supra note 54, at 2, 7; RBC Capital Markets Letter, supra note 19, at 3.

72 See, e.g., Battalio, Corwin & Jennings, supra note 17.

73 A nonmarketable order is a limit order that is priced at an amount that cannot be immediately executed at the prevailing market price, such as an order to buy at no more than $9.50 when the best order to sell in the market is for $9.55.

74 See, e.g., Battalio, Corwin & Jennings, supra note 17, at 1.

75 See id.

more likely to trade when the price moves against them.[76] For example, an order to buy resting at $9.50 on an exchange with a high taker fee might not get filled if the market price fell to $9.50 and then moved up, because that exchange likely would be ranked low on market participants' routing tables. However, that order necessarily would be filled if the market price to sell fell to $9.49 or below.

For marketable orders,[77] a broker may have an incentive to route to a trading venue that charges low access fees, or so-called "inverted" markets, offering rebates to take liquidity.[78] However, venues with low taker fees (or that pay rebates to takers) generally have lower maker rebates (or impose fees on makers), and as a consequence, all else being equal, such markets would be less attractive to traditional liquidity providers compared to markets that pay a more attractive rebate to post liquidity for a given execution probability and therefore may have less posted liquidity available at the best price. These markets' pricing structures also may attract sophisticated market participants that are willing to post liquidity on relatively unfavorable terms for the chance that such markets' high position on taker routing tables will allow traders to interact with the first tranche of a large market order, thus allowing the traders to detect the earliest signs of a potential price move and quickly adjust their quoting or trading strategies on other markets.[79] Accordingly, when a broker routes marketable customer order flow to a low taker fee (or inverted) venue, there is a risk that it actually may impair the execution quality of the customer's order, particularly for larger institutional orders, if there is a potential for market-moving information leakage.[80]

The impact of maker-taker fees on routing decisions has been the subject of recent academic research, and at least one study found that, based on a selection of data reviewed, some major retail brokers routinely send nonmarketable orders to the trading venues paying the highest rebates.[81] One of the firms highlighted in that study noted that the study focused on non-retail

---

76 See id. See also James Angel, Lawrence Harris & Chester Spatt, "Equity Trading in the 21st Century," at 43 (May 18, 2010), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1584026.

77 A marketable order is an unpriced market order or a marketable limit order that is priced at an amount that can be immediately executed at the prevailing market price, such as an order to buy at $9.50 when the best order to sell in the market is for $9.50.

78 See, e.g., Angel, Harris & Spatt, supra note 76, at 43.

79 See id. (asserting that "the traders who pay the access fees at make-or-take exchanges typically are proprietary and institutional traders whose orders internalizing dealers will not accept. These traders tend to be well-informed traders. The retail orders routed to make-or-take exchanges thus always execute when prices move against them, but they may not execute as often as they would otherwise execute when prices move in their favor").

80 See id.

81 See Battalio, Corwin & Jennings, supra note 17, at 11. Battalio et al. looked at ten brokers' trading activity in the last quarter of 2012 and found that four firms sent all

proprietary order flow and questioned its broader applicability as it represents institutional orders from a single broker-dealer.[82] There is some debate about whether or to what extent customers actually may be harmed from the conflict of interest presented by maker-taker fees and other payment for order flow. For example, brokers may use the economic benefits they receive from routing customer orders (including from maker-taker rebates) in part to reduce the commissions that they charge their customers.[83]

---

nonmarketable orders to the one or two trading venues paying the highest rebates. See id. Five firms routed all non-directed orders to market makers that purchase order flow, typically resulting in such orders being traded against the purchaser's marketable orders. See id. at 10. Only one firm demonstrated potential evidence that its order routing decisions took non-fee factors into account. See id. The authors of the study concluded that for the four firms routing their nonmarketable orders to the venue offering the highest rebate, fees appeared to be a significant determinant in where orders were routed. See id. The authors took the preliminary view that such routing appears unlikely to be consistent with the duty of best execution. See id. at 5. During a June 2014 Senate hearing on investor confidence in the U.S. stock markets, an executive of one of the four firms confirmed that the firm exclusively sent nonmarketable orders to the two venues paying the highest rebates in the first quarter of 2014. 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" (Jun. 17, 2014) ("Quirk Testimony"), available at: http://www.hsgac.senate.gov/subcommittees/investigations/hearings/conflicts-of-interest-investor-loss-of-confidence-and-high-speed-trading-in-us-stock-markets. The executive estimated that his firm made $80 million in 2013 from maker-taker rebates. See id.

82 See Quirk Testimony, supra note 81, at 6. Responding to the Battalio et al. paper, Steven Quirk of TD Ameritrade noted that the study "used two months of data consisting of 'non-retail order flow from one broker trading algorithm,' and we question whether it is appropriate to draw any conclusions about the execution quality of retail order flow, which appears to us to be fundamentally different from the order flow that was analyzed." See id. Quirk further noted that "U.S. equity structure has never been better for retail investors," and cited statistics for its customers showing that "average execution speed has improved by 90% since 2004 – from 7 seconds to 0.7 seconds today," 99% of customer orders are filled in their entirety, and "clients trading listed securities received a better price than the published national best price 91% of the time – ten years ago, the industry average for marketable orders in listed stocks was 14%." See id. at 3-4.

83 The testimony of Steven Quirk, cited above, noted that "retail online discount commission rates have been reduced by almost 70% since 1997 – from an average of $38.63 to $12.03 per trade." See id. at 3. Quirk further noted that payment for order flow that TD Ameritrade receives may be passed back, in part, to customers in other ways, such as "products and services that TD Ameritrade offers at low or no additional cost," including free trading software, free real-time market data, and free independent research. See id. at 6.

B. Increases Market Complexity

In addition to presenting potential conflicts of interest, some have suggested that the maker-taker fee model distorts exchange pricing and adds unnecessary complexity to market structure, including artificially high fees that subsidize rebates, the proliferation of new exchanges to accommodate different pricing models, and the development of complex order types designed to take advantage of the maker-taker fee model.[84]

Some have suggested that to compete with non-exchange markets, as well as other exchanges, exchanges are motivated to offer the highest rebate to attract liquidity.[85] To fund these rebates, exchanges must charge artificially high taker fees that may approach the access fee cap of $.003 per share.[86] According to this view, within the maker-taker fee structure, where the difference between the highest rebate and highest taker fee approaches $0.006, exchange net trading fee revenues – the difference between taker fee revenues and maker rebate expenses – is generally less than one-tenth that range, between $0.0005 and $0.001 per share.[87] Within this narrow range of net revenues, however, exchanges compete aggressively. The pressure to establish novel and competitive pricing often leads exchanges to modify their pricing frequently, typically on a calendar-month basis, which may add uncertainty and complexity to the marketplace as market participants must regularly update their routing tables to accommodate these frequent pricing changes.[88]

This artificially wide range of price competition also may exacerbate market fragmentation because it encourages the creation of new exchanges to offer different pricing

---

84 See, e.g., BATS Open Letter, supra note 24, at 3-5.

85 See, e.g., BlackRock Viewpoint, supra note 54, at 7.

86 See, e.g., Letter from Christopher Nagy, Chief Executive Officer, and Dave Lauer, President, KOR Group LLC, to Elizabeth Murphy, Secretary, SEC, at 9 (Apr. 4, 2014) ("KOR Letter"), available at: https://www.sec.gov/comments/4-657/4657-32.pdf ("[E]ach exchange is forced to increase rebates, add liquidity tiers and increase fee complexity in order to compete with other exchanges."); BlackRock Viewpoint, supra note 54, at 7 ("Most venues are motivated to maximize the liquidity displayed in their order book by offering the largest possible rebate which in turn drives access fees toward the limit.").

87 For example, in securities priced $1.00 and above, BATS BZX charges $0.0030 per share when removing liquidity and offers a $0.0020 per share rebate for adding liquidity. See BATS BZX Exchange Fee Schedule (effective May 1, 2015). The taker fee on NYSE is $0.0027 and the maker rebate is between $0.00150 and $0.0030 (the highest rebate is available for orders designated as "retail"). See NYSE Fee Schedule (last updated Apr. 27, 2015).

88 As discussed above, exchanges can file their fees for immediate effectiveness. See supra note 15.

structures to cater to different types of market participants or trading strategies.[89] These additional exchanges then compete amongst each other and with non-exchange venues to offer the highest rebates and charge the lowest transaction fees, or to offer alternative pricing models to cater to specific interests (e.g., inverted taker-maker fees).[90] For example, the NYSE Group now has three registered national securities exchanges[91] and each exchange has a different pricing structure. Similarly, BATS has four registered national securities exchanges[92] and NASDAQ OMX has three registered national securities exchanges,[93] each with different pricing structures. The proliferation of trading venues resulting from efforts to offer differentiated fee models adds complexity to the marketplace and fragments order flow. In the view of ICE, eliminating or modifying the maker-taker model may reduce the incentive for exchange groups to establish "cloned" markets differentiated primarily by their fee structures, which in turn could reduce market fragmentation and complexity.[94]

The maker-taker model also has led exchanges to develop a variety of complex order types that are specifically designed to allow professional liquidity providers to quote aggressively on the exchange (to be at the best price to maximize their chances of interacting with marketable order flow) while having assurances of being a maker near the top of the queue in order to receive the rebate (and not be a taker that would pay the associated fee) and also assure that the trader does not lock the market in contravention of Rule 610 of Regulation NMS.[95] In other words, these exchange order types exist to allow professional traders to post

---

89 See, e.g., Dolgopolov, supra note 18, at 241 ("Moreover, going beyond the process of providing the highest liquidity rebate or the lowest access fee, trading venues started employing [maker taker pricing] as a means of a multifaceted segmentation for market participants with specific trading strategies."); Sprecher, supra note 71, at 7 ("[A]t NYSE we have five exchange medallions because they all have—some have options in them—but they all have different pricing structures. And if we could get rid of maker-taker pricing, we would theoretically just be able to go down to one medallion and we would eliminate the number of exchanges, which are fragmenting the markets.").

90 See Sprecher, supra note 71, at 7.

91 The NYSE Group markets include NYSE (equities), NYSE Arca (equities and options), and NYSE MKT (equities and options).

92 The BATS markets include BZX Exchange (equities and options), BYX Exchange (equities), EDGA Exchange (equities,) and EDGX Exchange (equities).

93 The NASDAQ OMX markets include NASDAQ Stock Market (equities and options), NASDAQ OMX BX (equities and options), and NASDAQ OMX PHLX (equities and options).

94 See, e.g., Dolgopolov, supra note 18, at n. 33 (citing to statements from the ICE Chairman and CEO).

95 According to Jeffrey Sprecher, Chairman and Chief Executive Officer, Intercontinental Exchange Group, Inc., "[a]t the NYSE, we have as many as many as 80 different order types, most of which are there to make sure that somebody gets the right rebate or doesn't breach Reg. NMS as they're trying to get a rebate, and don't cause a locked market

interest passively, never take aggressively, and avoid locking the market consistent with Rule 610 of Regulation NMS.[96] Such order types include "post only" order types, which are cancelled or re-priced automatically if they would otherwise execute upon entry,[97] and "price sliding" order types, which automatically adjust the displayed price of an order as necessary to avoid locking the market, and in some cases automatically re-price to the original locking price as soon as market conditions permit.[98]

---

because they're resting in a market with a high rebate, waiting for a trade to happen [at that venue], and that'd just added a lot of complexity to the marketplace." See Sprecher, supra note 71, at 7; Lazo Letters, infra notes 108 and 117 (concerning maker/taker pricing structures and their effect on increased complexity and the appearance of conflicts of interest and noting that these pricing structures have led to a proliferation of order types designed to avoid access fees and capture rebates).

96 See infra note 97 (providing examples of such order types).

97 See, e.g., NASDAQ Rule 4751(f)(10) (Post-Only Orders). According to NASDAQ OMX, "The Post-Only order type increases market participants' ability to control their provision, or taking, of market liquidity and thus better anticipate trading costs." NASDAQ OMX Post-Only Order Fact Sheet, available at: https://www.nasdaqtrader.com/content/ProductsServices/Trading/postonly_factsheet.pdf (all three of NASDAQ OMX's markets offer the Post-Only order type.); BATS Rule 11.9(c)(6) (BATS Post-Only Orders); BATS U.S. Equities Exchanges Definitions and Order Types: Order and Routing Instruction Descriptions, available at: http://www.batstrading.com/resources/features/bats_exchange_definitions.pdf (describing the post-only order as follows: "Post only orders allow users to make a market and specify not to remove liquidity unless adequate price improvement is accessible. Any incoming post only orders that cross with a resting displayed order that does not offer adequate price improvement will be rejected.").

Pegged Order also may be used with maker-taker trading strategies. With a pegged order, the participant specifies a price for the order that is "pegged" to the NBBO in a specified manner (e.g., "primary peg" sets a price for the order that is based on the same side of the NBBO as the order; "market peg" sets a price based on the opposite side of the NBBO from the order; "midpoint peg" sets a price based on the NBBO midpoint; and "alternate midpoint peg" sets a price to the less aggressive of the midpoint or one tick inside the same side of the NBBO as the order). Pegged Orders are hidden and thus not displayed publicly. See, e.g., BATS Rules 11.9(c)(8) (Pegged Order) and 11.9(c)(9) (Mid-Point Peg Order).

98 For example, on BATS, Display-Price Sliding is described as follows: "BATS Display-Price Sliding allows displayable orders that would normally be canceled automatically because they lock or cross the NBBO when received by BATS to temporarily 'slide' (adjust) to one minimum price variation below the current NBO (National Best Offer) for bids or one minimum price variation above the current NBB (National Best Bid) for offers. This functionality is enabled by default on all BATS orders. When the NBBO moves such that the order would no longer lock or cross the NBBO, BATS will automatically 'unslide' (re-adjust) the display price to the price previously locking the

Net trading costs are important to professional liquidity providers and generally are factored into their determination of the price at which they are willing to quote or trade.[99] Therefore, for professional liquidity providers, the difference between being a maker and being a taker is economically significant when a rebate is on the line and is determinative of their relative success or failure on a particular trade.[100] Accordingly, latency-sensitive market participants may prefer exchanges that have hard-coded directly into their trading systems complex order types that are designed to facilitate a maker-taker trading strategy in fast-moving markets, since such exchange-based functionality eliminates the delay that would be present if the functionality resided with the market participant. This complex functionality, however, introduces an additional level of complexity and risk into exchange operations.

In addition, the complexity of these order types is a result of the need to comply with Rule 610 of Regulation NMS, referred to as the "locked markets rule," which effectively requires exchanges and their members to avoid displaying quotations that lock or cross any protected quotation in an NMS stock.[101] The locked markets rule was meant to avoid investor confusion by minimizing the appearance of inefficient markets, as an investor generally would expect a bid and an offer at the same price to execute.[102] Further, allowing market participants to ignore

---

NBBO." See "BATS U.S. Options & Equities Display-Price Sliding: Slide Orders that Lock or Cross the NBBO," available at: http://cdn.batstrading.com/resources/features/bats_exchange_pricesliding.pdf.

99 See, e.g., Dolgopolov, supra note 18, at 250 (noting that "one key impact of [the maker-taker pricing model] is the emergence of 'rebate arbitrage' – also sometimes called 'rebate harvesting' – aimed to generate profits primarily from collecting liquidity rebates"); id. at 257-61 (discussing the "order type controversy").

100 See, e.g., Harris, supra note 3, at 3 ("Practitioners, whether on the buy-side or sell-side, will make better trading decisions by focusing on net prices rather than quoted prices."); Dolgopolov, supra note 18, at 250-51 (describing rebate arbitrage strategies).

101 See 17 CFR 242.610. A "locked market" occurs when the price of displayed interest to buy exactly matches the price of displayed interest to sell. For example, an order to buy 100 shares at $10.00 and an order to sell 100 shares at $10.00 would constitute a "locked" market. Investors could reasonably expect such orders would match against each other, or be routed in a manner to cause their interaction if they are displayed on two different markets. Rule 610 requires national securities exchanges and associations to establish, maintain, and enforce rules requiring their members reasonably to avoid displaying quotations that lock or cross any protected quotation in an NMS stock. Rule 610(d) requires such rules to be reasonably designed to assure the reconciliation of locked or crossed quotations in an NMS stock, and to prohibit members from engaging in a pattern or practice of locking or crossing the market. While Rule 610(d) addresses both locked and crossed markets, this discussion only address the locked markets aspect of the Rule and its interaction with maker-taker fees.

102 When it adopted the rule, the SEC indicated that when market participants are willing to trade at the same quoted price, giving priority to the first-displayed automated quotation

accessible quotations in other markets and routinely display their own interest that locks another market that has time priority would detract from the maintenance of fair and orderly markets and act as a disincentive to liquidity providers.[103] Restricting locked markets also benefits market makers and their continued provision of liquidity to the markets, because spread-capture strategies earn no money in a zero-spread environment. However, for certain reasons, most notably maker-taker trading strategies that favor posting over taking liquidity, some market participants that submit orders might not want them to interact with other posted orders out of a desire to avoid paying taker fees.[104]

While the benefits of restricting true market locks are evident, maker-taker fee structures may actually lead to increased instances of markets with locked displayed prices because those displayed markets do not reflect "true" economic locks due to the fact that market participants may receive a rebate if their posted interest trades passively.[105] In other words, on an all-in net basis, accounting for all fees incurred and rebates earned to trade with both sides of the market, a displayed maker-taker market today where the bid and ask converge is not truly locked economically because the net prices are not equal.[106] For example, consider a market with a maker rebate of $0.002 and a taker fee of $0.003 per share. If a market maker was a maker on both the bid and offer, a displayed quote (which generally may not be priced in subpenny increments)[107] of $10 by $10 would actually be interest to buy at $9.998 and sell at $10.002.

---

should encourage investors to post quotations publicly at the best prices. Doing so would give investors a degree of assurance that when other interest seeks to trade at the best displayed price that they were first to establish in the market, they would be first in line to trade. See NMS Adopting Release, supra note 14, at 37501 ("Moreover, strong intermarket price protection offers greater assurance, on an order-by-order basis, that investors who submit market orders will receive the best readily available prices for their trades.").

103 See, e.g., NMS Adopting Release, supra note 14, at 37516 (noting that disincentives for investors to display limit orders "ultimately could negatively affect price discovery and market depth and liquidity").

104 See id. at 37547.

105 See id. (noting that "a locked market currently may not actually represent two market participants willing to buy and sell at the same price. Often, the locking market participant is not truly willing to trade at the displayed locking price, but instead chooses to lock rather than execute against the already-displayed quotation to receive a liquidity rebate").

106 See, e.g., James J. Angel, Lawrence E. Harris & Chester S. Spatt, "Equity Trading in the 21st Century: An Update," at 28 (Jun 21, 2013), available at: http://www.worldscientific.com/doi/abs/10.1142/S2010139215500020 ("Perhaps the problem with maker/taker pricing is best understood by recognizing that maker/taking pricing effectively reprices customer limit orders.").

107 The benefits of more finely tuned tick sizes have been mentioned by some, including with respect to low-priced stocks, and some have argued that taker rebates in inverted

While the displayed price of $10 by $10 would lock the market, the market maker's net cost would reflect a spread of $0.004 per share (and thus not constitute a true lock).

The nuances of these complex order types catering to maker-taker fee strategies, including how they interact with each other in varying market conditions and how they are ranked, displayed, and executed, introduces a significant amount of complexity into modern trading systems and may inhibit the ability of even sophisticated market participants to understand with full confidence how a particular market operates.[108] This complexity also presents challenges to exchanges to describe their order types in their rules and proposed rule change filings under Section 19 of the Exchange Act in a manner that makes clear the various ways in which these orders are handled by their electronic trading systems.[109] Several exchanges have recently settled charges brought by the SEC in this area.[110]

Restricting or eliminating maker-taker fees could reduce the incidence of locked markets (and thus the need for complicated order types at the exchange level that are designed, among other things, to avoid locking the market) because in the absence of maker-taker fees the quoted prices would reflect more closely actual net economic prices.[111] Consequently, if quoted prices

---

markets may help offset the spread in such stocks. See, e.g., Chen Yao & Mao Ye, Tick Size Constraints, High-Frequency Trading, and Liquidity (Jan. 20, 2015), available at: http://ssrn.com/abstract=2478216.

108 See, e.g., Dolgopolov, supra note 18, at 257 and 264-68 (discussing "the order type controversy"); Letter from Theodore R. Lazo, Managing Director and Associate General Counsel, SIFMA, to Mary Joe White, Chair, SEC, at 7 (Oct. 24, 2014), available at: http://www.sec.gov/comments/s7-02-10/s70210-422.pdf ("These order types have largely been designed to deal with current market structure realities and the Commission's rule against locking quotations, though few market participants fully understand all of the complexities of their interactions. SIFMA believes that certain order types create or promote activity that should be discouraged, such as excessive message traffic or complex order routing solely for purposes of capturing maker-taker rebates.").

109 See, e.g., Dolgopolov, supra note 18, at 259 ("Another pertinent issue is whether the actual functioning of certain order types goes contrary to their formal documentation, such as SRO rule filings, corresponding disclosure documents, and more general SRO rules governing the order matching process.").

110 For example, two Direct Edge exchanges agreed to pay a $14 million penalty to settle charges that their rules failed to accurately describe the order types being used on the exchanges. See Securities Exchange Act Release No. 74032 (Jan. 12, 2015) (In the Matter of EDGA Exchange, Inc. and EDGX Exchange, Inc.) (File No. 3-16332). That penalty was the SEC's largest against a national securities exchange, and the case was the SEC's first principally focusing on stock exchange order types.

111 See, e.g., Angel, Harris & Spatt, supra note 106, at 27 ("We believe that maker/ taker pricing has not changed net spreads, but has decreased quoted spreads…."); Joe Ratterman, CEO of BATS, Statement to the U.S. Senate Banking, Housing and Urban Affairs Committee, Hearing on "The Role of Regulation in Shaping Equity Market

more closely reflected actual net prices, then market participants may be more willing to reach across the market and take liquidity at the quoted price rather than seek to avoid an execution as taker in a maker-taker environment and consequently lock the market.

If maker-taker fees are restricted or eliminated, then it may be appropriate to consider whether the locked market provisions in Rule 610 continue to serve a useful purpose in today's markets or whether that Rule should be limited or even eliminated. Given the fast pace of trading and the high number of trading venues in today's markets, the current restriction on locked markets adds complexity and compliance costs for market participants.[112]

C. Adverse Effects on Price Transparency

One of the cornerstones of a well-functioning national market system is price transparency. Indeed, as noted above, the quotes displayed by the public exchanges are critical to price discovery in the U.S. markets. They also inform broker-dealers' efforts to seek best execution of their customers' orders.

Maker-taker fees, however, may undermine price transparency in the public markets to the extent that they obfuscate the actual price bid or offered for a security and this problem is compounded by the fact that maker-taker fees vary substantially across exchanges.[113] As a result, a quote at the same displayed price, in penny increments, on several different exchanges does not reflect the actual net price of trading on that venue, in subpenny increments, once the applicable transaction fees or rebates are taken into account.[114] While professional market participants have the ability to monitor for frequent fee changes and take them into account in their "smart" order routers, the resulting complexity may create the risk of confusion for other market participants.[115]

Structure and Electronic Trading" (Jul. 8, 2014), available at: http://www.banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=e629a146-0ee1-4ebc-940b-b3289ef77118 ("Given that existing regulatory guidance already effectively prohibits locking a market for the sole purpose of avoiding or reducing fees, revisiting regulatory obligations [concerning locked markets] could be a simple yet powerful way to materially reduce the complexity of exchange operations.").

112 See Ratterman, supra note 111 (citing to Ratterman testimony).

113 See, e.g., Angel, Harris & Spatt, supra note 76, at 42 (noting that "[t]he obfuscation makes it more difficult for traders to recognize the true costs of their trading.").

114 See, e.g., Harris, supra note 3, at 3 (noting the concern that "[m]aker-taker pricing creates a transparency problem since quoted spreads are different from the more economically meaningful net spreads and since most retail traders are unaware of the difference.").

115 Despite this impact on price transparency, as discussed above, some believe that the effect of maker-taker fees on displayed prices generally inures to the benefit of retail investors in the form of improved execution prices. See supra Section II.1.B (discussing the maker-taker model's potential benefits to retail investors by narrowing spreads). Others have noted that maker-taker fees result in "significant monetary transfers between

Accounting for different maker-taker rebates, a broker could incur materially different net prices to access or provide liquidity, depending on the fee and rebate structure of the particular exchange.[116] To navigate this nuanced landscape, brokers may turn to systems capable of accounting for access fees and rebates when routing orders to markets because the net price is not readily apparent from the information that is publicly displayed.[117] Further, the fees or rebates may depend on the volume transacted by the member broker-dealer, in which case the actual net price may not be readily determinable at the time the order is placed.[118]

Because maker-taker fees contribute to a certain amount of variation in the price of securities from the displayed price, the maker-taker pricing model may have an adverse impact on the precision of consolidated market data feeds as well as exchanges' direct data feeds.[119] When the SEC established the current $0.003 equities fee cap, it noted that the purpose behind capping the maximum access fee was to ensure the fairness and accuracy of displayed quotations

---

market participants." See Thierry Foucault, Ohad Kadan, and Eugene Kandel, "Liquidity Cycles and Make/Take Fees in Electronic Markets," at 301 (Feb. 2013), available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1540-6261.2012.01801.x/abstract.

116 For example, an offer of $10.00 displayed on Market 1 with a $0.003 taker fee would effectively cost $1,000.30 to take 100 shares, while the same offer of $10.00 on Market 2 with an inverted taker-maker fee structure and a $0.002 taker rebate could be obtained for a net cost of $999.80 for 100 shares, thus creating a $0.50 difference between those two markets (i.e., accessing liquidity on Market 2 is less expensive than accessing liquidity on Market 1). From the liquidity making perspective, a bid of $10.00 displayed on Market 1 with a $0.002 maker rebate would effectively cost the maker $999.80 to trade 100 shares, while the same bid of $10.00 on Market 2 with a flat fee or inverted taker-maker fee structure with a $0.002 fee would effectively cost the maker $1,000.20 to trade 100 shares.

117 See, e.g., Letter from Theodore R. Lazo, Managing Director and Associate General Counsel, SIFMA, to Chair Mary Jo White, SEC, dated May 5, 2015, available at: http://www.sifma.org/issues/item.aspx?id=8589954524 ("May 5, 2015 Lazo Letter") (SIFMA notes that "market participants regularly implement complex order routing strategies, consistent with best execution, that divide, route and re-route orders and parts of orders, when possible, to market centers that enable them to avoid paying excessive access fees.").

118 For example, an exchange may offer several tiers of lower fees for directing successively higher levels of order flow to the exchange over the course of a calendar month. See, e.g., Dolgopolov, supra note 18, at 240 (discussing tiered fees).

119 See, e.g., Angel, Harris & Spatt, supra note 76, at 42 ("The make-or-take pricing model thus would appear to accomplish nothing besides reducing quoted spreads and thereby obfuscating true economic spreads, which are the net spreads inclusive of the access fees and liquidity rebates. The obfuscation makes it more difficult for traders to recognize the true costs of their trading.").

by establishing an outer limit on the cost of accessing such quotations.[120] In other words, the fee cap was intended to assure market participants that displayed prices are actual prices, with permitted access fees creating only immaterial variations. In recent years, however, the markets have become increasingly competitive and order routing technology has become much more sophisticated, with the result that today many would view access fees as material to order routing decisions.[121]

III. Potential Changes to the Maker-Taker Fee Structure

1. Substantially Lower the Fee Cap or Ban Rebates

As discussed above, the maker-taker fee model impacts market structure in various ways. A number of possible changes related to maker-taker fee structures have been suggested by market participants.

A. Reduce the Fee Cap

One possibility that some market participants have suggested is to reduce the Rule 610 fee cap from its current level of $0.003 to a substantially lower level, such as $0.0005 per share.[122] As discussed above, both ICE/NYSE and BATS support a reduced fee cap.[123]

Lowering the maximum permissible fee would have the effect of lowering the maximum available rebate because exchanges' transaction rebates typically are bounded by the transaction fees they charge.[124] The amount of a reduced Rule 610 fee cap could be set at a level that is sufficiently low to curb the distortive impact of the maker-taker fee model, but yet affords room for vigorous price competition among trading venues.[125] Today, where net revenue capture by

---

120 See NMS Adopting Release, supra note 14, at 37502.

121 See, e.g., Battalio, Corwin & Jennings, supra note 17.

122 On a 100 share order, this would reduce the maximum transaction fee from 30 cents to 5 cents.

123 See supra notes 23-26, and accompanying text.

124 See Tabb, supra note 23 (noting that much of today's equity trading challenges stem from the Reg. NMS fee cap and that exchanges rebate a significant portion of the 30 mils fee cap to liquidity providers). Transaction rebates paid by an exchange are bound by the transaction fees assessed by the exchange if the exchange does not subsidize the rebate from other non-regulatory revenue and if the exchange seeks to maintain a positive spread between the two. Balancing the rebate paid with the fee charged allows an exchange to either earn a slight profit or remain revenue neutral on its trading operations. See, e.g., Harris, supra note 3, at 2.

125 See, e.g., BATS Open Letter, supra note 24, at 4 (stating BATS' belief that lower dynamic and tiered access fees would preserve the benefits the current market structure

exchanges generally is less than $0.001 per share in the maker-taker context, a lower fee on both making and taking trades of $0.0005 could therefore be revenue neutral to exchanges, but would be a considerable and material change to current access fee levels.[126] A slightly higher cap of $0.001 per share or more may still reduce the distortive effect of transaction fees on displayed quotes.[127]

B. Prohibit Transaction-Based Rebates

Another alternative that has been suggested is to ban the payment of transaction rebates.[128] This view holds that the payment of transaction rebates by market centers artificially expands the range of price competition and therefore distorts routing decisions.[129] Banning the payment of rebates would allow markets to compete freely on price for execution services.[130]

---

while helping remove a perception of conflicts with respect to highly liquid securities that no longer require liquidity incentives).

126 See, e.g., Harris, supra note 3, at 2 ("For equity trades, the access fees typically are 0.30¢/share (3 mil or '30¢ a hundred'). The liquidity rebates received by the makers are typically 0.25¢/share.").

127 When it initially proposed Rule 610, the SEC proposed a fee cap of $0.001 per share with an accumulated cap of $0.002 per share. See Securities Exchange Act Release No. 49325 (Feb. 26, 2004), 69 FR 11126, 11159 (Mar. 9, 2004) (File No. S7-10-04) ("NMS Proposing Release").

128 See, e.g., supra note 23 (discussing the ICE/NYSE "grand bargain" proposal). Section 6(b)(4) of the Exchange Act requires that the rules of an exchange provide for the "equitable allocation of reasonable dues, fees and other charges." Some could argue that paying a market participant to avail itself of an exchange's execution services effectively results in one market participant (e.g., the taker) subsidizing the trading costs of another market participant (e.g., the maker), which may not be an equitable allocation of exchange fees as between those two market participants.

129 See, e.g., Battalio, Corwin & Jennings, supra note 17, at 2 ("If investors choose brokers based primarily on commissions (perhaps because they lack the sophistication and/or the necessary information to evaluate limit order execution quality), it may be profit maximizing for brokers to focus on liquidity rebates rather than the probability of limit order execution when making routing decisions.").

130 A related issue is volume-based discounts and other transaction-based discounts that may be economically equivalent to a rebate. For example, a fee program that provides a discounted transaction fee for higher tiers based on increasing levels of average daily volume would be the economic equivalent of the exchange paying an increasing rebate to its member at each volume tier. Such volume-based fees have their own distortive effects. See, e.g., Letter from Manoj Narang, Chief Executive Officer, Tradeworx, Inc., to Elizabeth M. Murphy, Secretary, SEC, at 12 (Apr. 21, 2010), available at: http://www.sec.gov/comments/s7-02-10/s70210-129.pdf.

Directly eliminating or substantially impairing the maker-taker fee model by lowering the fee cap or banning the payment of rebates would address the concerns with respect to conflicts of interest, market complexity, and price transparency discussed above.[131] In particular, with less pressure to be first in line to post liquidity, or otherwise ensure that your trading interest is only passive in nature (i.e., is available for others to trade with, but would not itself aggressively take another resting order), the need for many complex order types would greatly diminish.[132] In addition, price transparency also would be promoted as the displayed prices would more accurately reflect the true economic cost of trading if access fees are reduced as a result of a lowered fee cap or the absence of a fee rebate.[133] Conflicts of interest on the part of brokers routing agency orders, particularly nonmarketable limit orders, also would be mitigated if the economic gain to be realized by the broker from posting liquidity, or economic loss from taking liquidity, were materially reduced or eliminated.[134]

However, eliminating or reducing maker-taker fees potentially could increase execution costs for retail investors to the extent that quoted spreads (at which retail orders typically trade) were to widen, particularly for certain less liquid securities, in the absence of a material incentive paid to market participants to aggressively post liquidity.[135] Eliminating or reducing maker-taker fees also could undermine the ability of the exchanges to compete with off-exchange dark venues.[136] To the extent that exchanges lose market share to non-displayed venues, then the public price discovery process could be further impaired.[137] As discussed above, impairment of

---

131 See, e.g., Harris, supra note 3, at 3-4 (summarizing notable concerns that are associated with maker-taker pricing).

132 See, e.g., May 5, 2015 Lazo Letter, supra note 117, at 2 (letter responding to BATS Petition for Rulemaking in which SIFMA notes that maker-taker access fees have increased complexity through "the proliferation of exchange order types designed to avoid access fees").

133 See NMS Adopting Release, supra note 14, at 37584 ("For quotations to be fair and useful, there must be some limit on the extent to which the true price for those who access quotations can vary from the displayed price.").

134 See, e.g., Battalio, Corwin & Jennings, supra note 17, at 5 ("Taken together, our results point to a strong negative relation between take fees and several measures of limit order execution quality. Based on this evidence, we conclude that the decision of some national brokerages to route all nonmarketable limit orders to a single exchange paying the highest rebate is unlikely to be consistent with the broker's responsibility to obtain best execution for customer orders.").

135 See, e.g., Tabb, supra note 23, at 2 ("An elimination of maker-taker rebates should widen spreads. This will be bad for investors, both retail and institutional.").

136 See Harris, supra note 3, at 5 (noting that exchanges adopted maker-taker fee models in competitive response to their adoption among non-exchange venues).

137 See, e.g., Sprecher, supra note 22, at 2 ("Orders routed to and executed in dark trading centers do not interact or compete with other orders, which detracts from the price discovery function that participants in lit markets provide.").

the public price discovery process would impact more than just the exchanges, as it would have broad repercussions on trading prices on non-exchange markets as well as among professional investors who look to prices displayed on the public markets as evidence of a competitively established indication of fair market value for a particular security.

C. A Tailored Approach

Lowering the fee cap and/or prohibiting markets from paying transaction-based rebates could be done either uniformly across all equity securities or limited to certain segments of the market.[138] In particular, some have suggested that highly liquid securities may not require as great a rebate as less liquid securities and therefore limiting maker-taker fees to more thinly traded stocks where natural liquidity and tighter public markets may be less likely to occur in the absence of incentives may be appropriate.[139] Continuing to permit maker-taker fees for categories of securities where they are most useful from the public interest standpoint (e.g., less liquid, small capitalization stocks) may promote competition and tighter markets in securities where organic trading interest would otherwise result in wider quoted spreads, consequently benefitting market participants, including retail investors.[140] This approach assumes that eliminating the maker-taker incentive to post liquidity in the market's most actively traded stocks would likely have a small impact on quoted prices, as natural trading interest in those stocks would likely be sufficient to continue to attract tight quoted spreads in the absence of rebates, and such rebates would offer minimal benefits to offset the drawbacks described above.[141]

Implementation of a tailored approach would necessitate consideration of appropriate groupings. For example, under a liquidity-based approach, securities could be segmented based on average daily volume over a fixed period of time, market capitalization, inclusion in certain indices (e.g., the Standard & Poor's 500, the Russell 1000), security type (e.g., operating company, exchange traded fund, closed-end fund), or some combination thereof. The appropriateness of using existing groupings could also be considered (e.g., Tier 1 and Tier 2 under the Limit Up Limit Down Plan).[142] Further, a process would need to be identified to

---

138 See supra notes 24-28 and accompanying text (discussing BATS' suggested tiered approach to access fees).

139 See, e.g., BATS Open Letter, supra note 24, at 3-4; BlackRock Inc. Viewpoint, U.S. Equity Market Structure: An Investor Perspective, at 7 (Apr. 2014), available at: https://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-us-equity-market-structure-april-2014.pdf ("The value of liquidity and therefore the need for incentives and rebates is not the same across all stocks. Regulators should review whether highly liquid stocks require any rebates at all.").

140 See id.

141 See id. at 1-4 (discussing the BATS Open Letter).

142 See, e.g., Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (Jun. 6, 2012) (File No. 4-631) (order approving on a pilot basis a national market system plan to address extraordinary market volatility). Under this Limit Up Limit Down plan, stocks

coordinate and disseminate efforts to periodically reassess and update the list of securities that would qualify.

In addition, reducing the fee cap and/or banning rebates for select segments of securities on a pilot basis, has been widely suggested.[143] The benefit of a carefully designed pilot program would be to test the effects of reducing the fee cap or banning rebates in order to assess its impact against a control group. Depending on the scope and duration of a pilot program, one drawback of a pilot program is that the mere existence of a pilot program may itself skew the results. For example, market participants may purposefully alter their trading in the selected securities compared to the status quo control group, which may limit the utility of data produced during the pilot.[144] Observational bias also may skew the results of the pilot, as market participants may alter their behavior when they know their trading will be carefully scrutinized by regulators.[145]

Even if the status quo were preserved for certain types of securities, a relevant consideration may be the extent to which the fee cap should nevertheless be reduced.[146] As

---

are grouped into two tiers: Tier 1 and Tier 2. Stocks in Tier 1 include stocks in the S&P 500 index or Russell 1000 index and certain enumerated exchange traded products.

143 See, e.g., Letter from Micah Hauptman, supra note 20 (citing to the Consumer Federation of America's support for a maker-taker pilot); RBC Capital Markets Letter, supra note 21 (citing to comments from RBC Capital Markets in support of a maker-taker pilot); and NASDAQ Pilot, supra note 29 (citing to the NASDAQ Pilot). Note, however, that the exchanges are currently in the process of preparing an industry-wide pilot to study tick sizes in an effort to study and assess the impact of increment conventions on the liquidity and trading of the common stocks of small capitalization companies through the widening of quoting and trading increments for a group of pilot securities. See Tick Size Pilot Order, supra note 58. The Committee may wish to consider the timing of any maker-taker pilot in light of the Tick Size Pilot.

144 See, e.g., Securities Exchange Act Release No. 74892 (May 6, 2015), 80 FR 27514, 27522 (May 13, 2015) (order approving national market system plan to implement the Tick Size Pilot) (noting that, for the Tick Size Pilot, a number of commenters expressed concern that market participants might avoid trading pilot securities, which could skew the data).

145 See id. at 27544 (noting, in response to comments that the SEC should define success metrics for the Tick Size Pilot up front, that the SEC "has carefully considered these comments but believes that defining the success metrics before the Tick Size Pilot begins could unduly influence behavior by market participants.").

146 As discussed above, Rule 610 of Regulation NMS limits the transaction fees that trading centers can charge for accessing their best bid or offer to no more than $0.003 per share where the quote is priced at $1 or more. See 17 CFR 242.610(c). For quotes priced at less than $1, the cap is set at .3% of the quotation price per share. See id. See also May 5, 2015 Lazo Letter, supra note 117, at 2-3, (letter responding to BATS Petition for Rulemaking in which SIFMA notes that because access fees are "an outsized element of

discussed above, the purpose of the fee limitation is "to ensure the fairness and accuracy of displayed quotations by establishing an outer limit on the cost of accessing such quotations."[147] To the extent that retail brokerage commissions were higher in 2005, when Rule 610 was adopted, than they are today, then the fee cap today would constitute a higher proportion of transaction costs relative to the fixed brokerage commission paid by the retail investor.[148] Accordingly, a lower fee cap could be appropriate in light of overall reductions in commissions since the adoption of Regulation NMS.[149]

2. Incorporate Taker Access Fees into the Public Quotes

An alternative to lowering the fee cap or banning rebates would be to require trading centers to incorporate their access fees for taking liquidity into their displayed quotes.[150] If access fees to take liquidity were incorporated into displayed quotes, such fees would effectively be passed back to the customer (the economic effect on a customer limit order providing liquidity would be more uncertain). Thus, displayed prices would more closely reflect the actual net economic price to be paid by the liquidity taker.[151]

---

transaction costs that in turn distorts price discovery and contributes to market complexity, both on- and off-exchange…," SIFMA "…has recommended a reduction on access fees for all securities regardless of liquidity.").

147 NMS Adopting Release, supra note 14, at 37502. For example, for an NMS stock where the displayed bid is $10.00, the total cost to access that bid would be $10.00, plus an access fee of no more than $0.003. The fee cap thus assures market participants that displayed prices are, within a limited range, true prices. See id.

148 See May 5, 2015 Lazo Letter, supra note 117, at 2 (citing to SIFMA's position that access fees are "an outsized element of transaction costs" that have distortive effects). See also O'Donoghue, supra note 59, at 1 ("According to Angel, Harris, and Spatt (2011), the median quoted bid-ask spread for S&P 500 stocks has been declining over the last decade and is $0.0125 as of August 2009. Since the effective spread is only slightly larger than the $0.01 tick size, the maker rebates represent a progressively larger proportion of the payoff to non-marketable limit orders and the taker fees are an increasingly greater fraction of the costs to investors using marketable orders.").

149 See, e.g., BATS Open Letter, supra note 24, at 3 (arguing that the fee cap "has remained unchanged for far too long and has never been reevaluated for potential market distortions given the substantially altered broker models and reductions in commissions since the implementation of Regulation NMS.").

150 See, e.g., NMS Proposing Release, supra note 127, at 11158 (discussing regulatory alternatives with respect to access fees) and Dolgopolov, supra note 18, at 267 (noting that some suggest "incorporating fees and rebates in public quotations themselves.").

151 See NMS Adopting Release, supra note 14, and accompanying text ("For quotations to be fair and useful, there must be some limit on the extent to which the true price for those who access quotations can vary from the displayed price."); see also Angel, Harris & Spatt, supra note 76, at 42-44.

To a large extent, displaying the net price to take would address some of the concerns discussed above regarding market complexity and price transparency as they apply to liquidity taking transactions. The increased transparency would help broker-dealers more readily assess the most favorable prices without the need for complex routing systems that take "hidden" fees and rebates into account.[152] As a consequence, this additional transparency could simplify to a degree the complexity of routing in today's market and reduce the need to utilize smart order router technology for price transparency purposes.[153]

At the same time, incorporating access fees for taking liquidity into displayed quotes may mitigate to an extent broker conflicts in routing both marketable and nonmarketable order flow.[154] For marketable orders, exchanges with the lowest taker fees would, all else being equal, be more likely to have the best displayed price and therefore be at the NBBO. Brokers would thus be able to focus on routing to the exchange displaying the best net price.[155] For nonmarketable orders, incorporating access fees for taking liquidity into displayed quotes could have an indirect effect on broker conflicts. In particular, the ability of low taker fee markets to attract marketable orders could result in competitive forces putting downward pressure on taker fees, which, in turn, could put downward pressure on maker rebates.[156] Lower maker rebates could reduce the extent of the conflict faced by brokers when routing nonmarketable interest to post on an exchange by reducing the magnitude of the available incentive.

While this option would permit exchanges to retain the ability to offer maker-taker fees as a tool to compete with non-exchange venues, the increased transparency may lead to a slight

---

152 See also May 5, 2015 Lazo Letter, supra note 117, at 2-3, (letter responding to BATS Petition for Rulemaking in which SIFMA notes that "market participants regularly implement complex order routing strategies, consistent with best execution, that divide, route and re-route orders and parts of orders, when possible, to market centers that enable them to avoid paying excessive access fees.").

153 See, e.g., Harris, supra note 3, at 25 ("the introduction of maker-taker and now taker-maker pricing schemes have [made] the markets more complex and less transparent.").

154 See, e.g., Dolgopolov, supra note 18, at 267 ("Some suggestions even point in the direction of incorporating fees and rebates in public quotations themselves, but there are some counterarguments" including subpenny quoting and complexity associated with tiered fees).

155 Even if quoted prices reflected the price to take liquidity accounting for all of the fees and rebates charged by the market, other forms of payment for order flow may remain available to the broker and would not be incorporated into the displayed quote if they are not assessed by the market. Indeed, brokers would likely seek to take advantage of the value of their agency order flow by emphasizing other types of less transparent payment for order flow (e.g., payments from consolidating wholesale brokers).

156 See Harris, supra note 3, at 2 (discussing the relationship between taker fees and maker rebates).

increase in execution costs, particularly for retail investors, if their executions remain tied to displayed quotes. For example, a broker that executes a customer order to sell off exchange where the national best bid is $10 would result in the broker buying from the customer at $10 (or slightly better if the broker provides price improvement). However, if the access fee to take liquidity is incorporated into the displayed $10 bid quote, the broker instead would buy from the customer at a slightly lower price (i.e., a price that is $10 minus the exchange access fee).[157]

Further, this alternative would require markets and market participants to be permitted to display and rank prices in subpennies,[158] which is restricted by Rule 612 of Regulation NMS (the "Subpenny Rule").[159] Specifically, the Subpenny Rule prohibits market participants from displaying, ranking, or accepting quotations in NMS stocks that are priced in an increment of less than $0.01, unless the price of the quotation is less than $1.00.[160] The Subpenny Rule was adopted in order to address a number of concerns, including curbing flickering quotations that can result from widespread subpenny pricing, which can negatively impact the ability of broker-dealers to satisfy their best execution obligations.[161] For example, a price that flickers back and

---

157 As noted above, some exchanges use volume-based sliding scales when determining their fees and rebates, in which the actual fees and rebates typically are determined at the end of a calendar month based on a member's transaction volume during the month. To the extent a new requirement mandates that an exchange or market participant incorporate into its quote the net price to take, inclusive of all fees and rebates, then such fees and rebates would need to be determined at the time of the trade in order to be incorporated into the quote. Consequently, liquidity-based tiers in their current form would likely no longer be a viable method of assessing transaction fees and rebates for transactions that take liquidity.

158 In exploring net pricing for displayed quotes, it also may be appropriate to explore whether the continued application of the Subpenny Rule remains appropriate in today's markets in light of modern electronic order routing systems and whether a more customized approach to tick size, which establishes minimum quoting increments in light of the price and liquidity profile of a security, is appropriate. See, e.g., Tick Size Pilot Order, supra note 58.

159 See 17 CFR 242.612. For example, many foreign jurisdictions utilize a tiered tick size approve that provides greater variability for tick sizes based on the price level of a stock rather than the "one size fits all" approach utilized by the United States. See SEC Report to Congress on Decimalization, at 18 (July 2012), available at: http://www.sec.gov/news/studies/2012/decimalization-072012.pdf. One option would be to permit markets to display and rank net prices in subpennies, but continue to require that markets only accept orders for stocks quoting at $1 or greater in increments of at least one penny.

160 If the price of the quotation is less than $1.00, the minimum increment is $0.0001.

161 See NMS Adopting Release, supra note 14, at 37553 (noting that "sub-penny quotations can increase the incidence of quote flickering, which in turn may have adverse effects such as confusing investors or impeding a broker-dealer's ability to fulfill its duty of best execution.")

forth between $10.001 and $10.002 complicates routing decisions, can confuse and frustrate investors, and potentially strains market infrastructure including market data feeds.[162] Subpenny quoting may also discourage public quoting by facilitating "stepping ahead" practices, where market participants are able to trade ahead of displayed quotes and orders at economically insignificant amounts.[163] Furthermore, "[w]idespread subpenny quoting could decrease market depth (i.e., the number of shares available at the NBBO) and lead to higher transaction costs, particularly for institutional investors. . . ."[164] Decreasing depth at the inside also could cause such institutions to rely more on off-exchange execution alternatives.[165]

3. Require Fees and Rebates to be Passed Back to the Customer

A third option that some observers have discussed would be to require broker-dealers to pass through all transaction rebates and perhaps also fees to their customers.[166] This approach would directly address the conflict of interest faced by broker-dealers when routing their customers' orders to a market for execution because the broker would have no direct economic interest in the level of access fees or rebates and thus could better objectively assess best execution for each customer's order.[167]

---

162 See id.

163 See NMS Proposing Release, supra note 150, at 11158.

164 NMS Adopting Release, supra note 14, at 37552.

165 See id.

166 See, e.g., Angel, Harris & Spatt, supra note 106, at 28. Under this approach, the broker-dealer would pass back to its customer the entire fee charged or rebate earned from the customer's order. For example, if a broker routed a 100 share limit order to a market that provided a posting rebate of $0.002 per share, then the broker-dealer would credit its customer the entire 20 cents paid by the exchange.

167 See, e.g., Robert Battalio, Testimony before the U.S. Senate Committee on Homeland Security and Governmental Affairs, Permanent Subcommittee on Investigations, Hearing on "Conflicts of Interest in the U.S. Equities Markets" (Jun. 17, 2014), available at: http://www.hsgac.senate.gov/subcommittees/investigations/hearings/conflicts-of-interest-investor-loss-of-confidence-and-high-speed-trading-in-us-stock-markets ("Battalio Testimony") ("A second approach is to mandate that rebates and fees flow through to the investor. In theory, this would solve the conflict of interest we study. If fees and rebates are passed through to the customer, the broker would be concerned solely about receiving the commission, which is paid only if the order is filled. Thus, the broker would be motivated to maximize the fill rate."). For example, if a broker receives a nonmarketable customer limit order to buy, the broker may route that order to an exchange with a high rebate for posting liquidity in order to obtain – and retain – the rebate. However, that exchange may also have a high fee to remove liquidity, which could dissuade market participants from trading with that order before other market centers with lower taker fees are accessed first. If the broker does not retain the rebate, and does not otherwise receive any direct or indirect payment for directing its order flow to a particular venue, then it

While broker-dealers may use all or a portion of the rebates they earn to reduce flat commissions that are charged to, and may be preferred by, retail customers, this approach would entail direct pass back of such credits to the end customer.[168]

Requiring pass-through of transaction fees and rebates could minimize the potential conflict of interest broker-dealers face when seeking to obtain best execution of a particular order.[169] However, given the highly competitive nature of the markets and the fluid nature of access fees, this approach could involve numerous implementation challenges.[170] For example,

---

would not face a direct conflict of interest with its customer in deciding where to route the order, and instead the broker could focus on seeking best execution for the particular order.

168 Note that exchanges generally assess fees only on their members. So, if a broker-dealer is not a member of an exchange, but accesses that exchange through another broker-dealer, the first broker-dealer would still need to credit its customer for the posting rebate even if that broker itself did not receive the rebate from the exchange.

169 Note, however, that to the extent a particular market center ever has a significantly lower taker fee than other market centers (including an inverted maker-taker structure where the rebate is earned for taking liquidity), then that market center may become a "first stop" destination for price sensitive order flow. Depending on how optimized a broker's smart router is, accessing such an exchange as the default first stop may attract latency-sensitive traders to that market who are eager to attempt to discern whether that first trade is part of a larger collection of trading interest that may have a short term impact on market prices. While such a scenario may not be an issue for retail customers, who may only want to trade a few hundred shares total, the issue could be significant for institutional investors who may be seeking to buy thousands of shares at a time. To avoid this potential negative consequence, one option would be to limit the requirement to pass-through fees and rebates to public customer retail orders only.

170 See, e.g., Battalio Testimony, supra note 167 (noting that "orders can take a very circuitous route from initiation to completion, potentially passing through multiple brokers and/or venues. Thus, in practice, it may be difficult to specify the pass-through rules that would solve this more complex problem."). In a highly competitive marketplace with numerous exchange and non-exchange execution venues, fees are prone to change and changes may cascade across multiple markets as each adjusts to respond to competitive pressure. Mid-month and even intra-day changes to fees would present a significant implementation burden to broker-dealers. See supra note 15 (noting that exchanges may file their fees for immediate effectiveness under Section 19(b)(3)(A) of the Exchange Act, and thus broker-dealers may not receive advance notice of a new fee or changes to an existing fee). That complexity would be compounded by the fact that each marketplace may set its fees at different levels, and parts of a larger order may execute on multiple venues, resulting in multiple levels of fees and rebates that need to be passed back. Indeed, a customer would not necessarily know the amount of the fees and rebates he or she would be assessed/credited until after the trade is executed.

institutional investors, particularly investment advisers, could face challenges in allocating various levels of pass-through fees and rebates among a variety of managed funds and subaccounts for large blocks of stock that are executed in parts and allocated from a central account at the end of the day.

Aside from the administrative burden and complexity associated with requiring pass-through of fees and rebates,[171] while this approach would largely eliminate one major source of the broker conflict of interest, it would not address the market complexity or price transparency effects of maker-taker fees. The benefits of the maker-taker fee model largely would be retained, however, including the ability of exchanges to use these types of fee models to compete with non-exchange markets as well as the effect on retail execution costs that result from narrowed spreads on maker-taker markets.

4. Best Execution Guidance

Others have suggested that the SEC or FINRA should issue additional guidance to broker-dealers with respect to their best execution obligations in the context of maker-taker fee structures and the attendant conflicts of interest they present.[172] For example, such guidance could include consideration of the level of the applicable fee or rebate and whether the level of the corresponding fee or rebate on the opposite side of the market increases or decreases the likelihood that the customer's order may receive a timely execution or be adversely selected (i.e., if the customer order would be more likely to execute if the market moves against the customer) or otherwise whether a high taker fee places the marketplace low on the broker-dealer's own routing tables[173]

However, enhanced best execution guidance would not directly address market complexity or price transparency concerns and therefore would have little meaningful impact in those areas. The advantage of providing additional best execution guidance would be that the benefits of the maker-taker fee model would be retained, including the ability of exchanges to

---

171 See supra note 170.

172 See, e.g., BlackRock, Inc., supra note 139, at 7 ("Another policy option would be to clarify a broker-dealer's obligations to clients by identifying the circumstances when consideration of rebates and access fees are inconsistent with best execution."); Battalio Testimony, supra note 167, at 8 (advocating for more rigorous application of best execution requirements on brokers and improved related disclosure) and KOR Letter, supra note 86, at 9 ("the definition of Best Execution has become outdated and can still be claimed despite clear evidence that brokers are routing for their own interests rather than the interests of their clients.").

173 See, e.g., Battalio Testimony, supra note 167, at 8 (noting that "[i]t seems unlikely to us that routing all nonmarketable orders to a single high rebate venue can be justified as best for the client."); Battalio et al., supra note 17, at 10.

use these types of fee models to compete with non-exchange markets as well as the effect on retail execution costs that result from narrowed spreads on maker-taker markets.[174]

5. Maintain the Status Quo

Another option would be to maintain the status quo in recognition of the fact that maker-taker fee structures indirectly provide better prices to retail investors to the extent they result in a narrower spread and offer a competitive tool for exchanges to attract displayed interest.

---

[174] See Battalio Testimony, supra note 167, at 8 (arguing that focusing on best execution is "[t]he approach likely to have the fewest unintended consequences").