

Maker-Taker Fees In A Fragmented Equity Market

By **Ilan Guedj and Zhong Zhang** (February 14, 2019, 2:44 PM EST)

Recently, nine Wall Street firms announced their intention to join in launching a new stock exchange, billed as a low-cost alternative to dominant players such as the New York Stock Exchange and Nasdaq.[1] The group, Members Exchange, consists of companies from both the buy side and the sell side of the financial industry, including broker-dealers, banks, asset managers and electronic market makers.

A new exchange like this, backed by major players in the capital market, will likely increase both competition and complexity, potentially adding fragmentation in an already highly fragmented U.S. equity market. At the same time, lawmakers[2] and regulators[3] have begun to systematically inspect equity market structure issues caused by fragmentation. In this article we provide an updated overview of equity market structure, recent regulatory actions and litigation implications.

The Current Landscape

Market Fragmentation

More than a decade after the U.S. Securities and Exchange Commission passed its Regulation National Market System, or Reg NMS, rules in 2006, U.S. equity exchanges have consolidated to 13 exchanges.[4] 12 are controlled by three exchange groups: Intercontinental Exchange, or ICE; the Chicago Board Options Exchange, or CBOE; and Nasdaq.[5]

- ICE operates five exchanges: NYSE, NYSE American, NYSE Arca, NYSE National and the Chicago Stock Exchange. Together, these exchanges account for 23 percent of total daily trading volume in the U.S. equity market.
- Nasdaq operates three stock exchanges: Nasdaq Stock Market, Nasdaq PSX and Nasdaq BX. They process 20 percent of total daily trading volume.
- The CBOE controls BZX, BYX, EDGA and EDGX, which process 17 percent of total daily trading volume.



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In addition, Investors Exchange processes 3 percent of total daily trading volume, resulting in these 13 exchanges processing only 63 percent of daily trading volume of U.S. equity market overall. The remaining 37 percent is processed by multiple private alternative trading systems, or ATS, and dark pools that are mostly owned by broker-dealers. Therefore, it is clear that the current U.S. equity market is highly fragmented without a dominating trading venue.

Maker-Taker Fees

Given how fragmented stock trading is, one of the most important services an exchange can offer, which should also allow it to increase its market share, is improved liquidity. Market liquidity is the ability to conduct large volumes of shares quickly and at low cost. When a market attracts more patient traders whose passive orders in aggregation do not move the price, liquidity improves.

To compete for such traders, stock exchanges provide per share rebates to executed passive orders (nonmarketable limit orders) that “make” liquidity and charge a fee on marketable orders that “take” liquidity to fund the rebate. Island ECN was the first exchange to adopt maker-taker fees in 1997, to compete with Nasdaq.[6] Today all 13 stock exchanges provide highly sophisticated maker-taker fee schedules to their customers.

For example, the NYSE charges \$0.0024 per share for aggressive marketable orders that execute against passive orders on the trading floor. However, this fee will be \$0.00275 for nonfloor transactions and \$0.0030 if you are a "designated market maker." These fees also depend on your average trading volume. The schedule for maker rebates is more complex than for taker fees.[7]

As this example shows, the current landscape of maker-takers fees is extremely complex. Facing such a complex cost structure, human users, let alone retail investors or professional traders, are not able to make optimal trading decisions. Sophisticated trading algorithms are thus a must-have for trading success in today's equity market.

Benefit of Maker-Taker Fees

The main benefit of maker-taker fees is that they provide exchanges with an extra tool to compete with nonexchange venues such as ATS and dark pools. Other factors equal, a positive rebate encourages traders and brokers to route their passive limit orders to a specific exchange, thus improving liquidity conditions on that exchange. In turn, this attracts further order flow to that exchange, at the expense of other exchanges.

Academic research has shown that improved liquidity in a stock market enhances price discovery and market efficiency.[8] A high-quality price signal from an exchange is critical to the existence of a functioning sophisticated capital market, as transactions processed elsewhere, including ATS and dark pools, are often benchmarked to the prices from exchanges.

A positive rebate also provides market makers who provide liquidity with passive orders an extra source of revenue. This extra income gives market makers an incentive to post a narrower bid-ask spread, thus lowering the transaction cost of marketable orders and improving market liquidity.

Cost of Maker-Taker Fees

Meanwhile, maker-taker fee pricing raises new problems that did not exist in the traditional market

structure. As brokers typically do not pass rebates and taker fees on to their customers, maker-taker fees incentivize brokers to route customers' orders to the exchange that provides the best fee structure for themselves.[9]

Routing orders to exchanges based on maker-taker fees may result in not providing "best execution" for customers' orders. Therefore, maker-taker fees can create a potential conflict of interest between brokers and customers. The SEC has stated that the mere existence of a maker-taker payment does not necessarily violate a best-execution obligation; however, it also cautioned that "the existence of payment for order flow raises the potential for conflicts of interest for broker-dealers handling customer orders." [10]

To stay competitive, exchanges provide different fee schedules, and frequently change them according to the market environment. Maker-taker fees are also another way to distinguish an exchange from other venues for new entrants, thus increasing the complexity and fragmentation of the stock market. After the introduction of maker-taker fees, exchanges have provided sophisticated traders complex new order types, most of the time at a cost, to fully utilize the maker-taker fee schedule. Many of these new order types are meaningless without maker-taker fees. All these complexities add additional trading expenses, which customers eventually pay.

Without maker-taker fees, it is relatively straightforward to compare quotes across all stock markets. But after the introduction of maker-taker fees, traders could no longer directly compare the quoted prices between two exchanges with different fee schedules. Per-share fees vary according to different order prices, order sizes and types of trader. These variations can harm price transparency, which is a major competitive advantage for exchanges.

As most exchanges charge a positive taker fee against marketable orders to fund the maker rebate for passive orders, marketable orders are more likely to be routed to nonexchange trading venues without taker fees, other factors being equal. If these marketable orders contain valuable information, then their absence from exchanges could hinder overall price discovery.[11]

Regulatory Actions Related to Maker-Taker Fees

Nasdaq Access Fee Pilot

From Feb. 2, 2015, to May 31, 2015, Nasdaq conducted a pilot program for 14 stocks as an experiment in reduced maker-taker fees. Seven of them were listed on Nasdaq; the other seven stocks were listed on the NYSE. The taker fee was reduced from \$0.003 per share to \$0.0005 per share. The maker rebate was reduced to \$0.0004 per share for displayed orders, \$0.0002 per share for non-displayed orders placed at the midpoint between best bid and best offer, and \$0 for other non-displayed orders.

The purpose of this experiment was to generate data for a detailed study into the impact of maker-taker fees on market structure and price formation. Despite its relative small scale, this pilot program has generated valuable insight about maker-taker fees. Researchers have documented that the Nasdaq market share of these 14 stocks decreased over the whole test period, as they lost volume to other competing exchanges.

Although there was no significant change to the bid-ask spread, the depth of the limit order book increased significantly, signaling improved market quality.[12] However, there is also evidence of increased absolute pricing error and larger variance of mispricing for these test stocks.[13]

“Trade-At Rule” in SEC’s Tick Size Pilot

To collect data for further investigation into maker-taker fees, the SEC included the “trade-at rule” in its Tick Size Pilot Program that lasted from Oct. 3, 2016, to Sept. 28, 2018.[14] Securities assigned to Test Group 3, or TG3, of the pilot program were subject to a trade-at prohibition “which generally prevents price matching by a trading center that is not displaying the best price unless an exception applies.”

Without this prohibition, ATS and dark pools can automatically peg their transaction price to the best price discovered in exchanges. This implies the exchanges are providing price discovery function for non-exchange venues to “free ride.” The trade-at prohibition is intended to remove the free-riding problem, and provide a transaction advantage for exchanges against nonexchange venues, so that exchanges may no longer need to rely on maker-taker fees to compete.

Early research results have shown that the trade-at prohibition resulted in a significant decrease in Nasdaq intraday trading volume as well as across the sum of all exchanges.[15] Meanwhile, both quoted bid-ask spreads and the observable depth of the limit order book at National Best Bid and Offer increased for TG3 stocks, and these stocks saw a reduction in the number of market makers, and less off-exchange and hidden trading during the pilot period.

SEC’s Transaction Fee Pilot

On Dec. 19, 2018, the SEC initiated the Rule 610T Transaction Fee Pilot for Reg NMS, which is slated to last for two years. The pilot program created two test groups (730 stocks each) with new restrictions on the transaction fees and rebates that exchanges charge or offer to their broker-dealer members. One test group will prohibit exchanges from offering rebates and linked pricing (\$0.0030 taker-fee cap still applies), and the other group will test a fee (both maker and taker) cap of \$0.0010.[16]

Stocks not selected in the program serve as the control group. They are still subject to the current taker-fee cap of \$0.0030 per share and face no cap for rebates.

The purpose of this pilot is to “generate data that will help the Commission analyze the effects of exchange transaction fee and rebate pricing models on order routing behavior, execution quality, and market quality generally.”[17]

Recent Litigation

In *Fleming v. The Charles Schwab Corp. et al.* and in *Lim et al. v. Charles Schwab & Co. LLC*, plaintiffs filed suits against Schwab alleging that the brokerage violated its duty to them by sending trades to UBS Securities when better prices were available elsewhere.[18] In 2016, the district judge dismissed both class actions as being barred under the Securities Litigation Uniform Standards Act of 1998, which prohibits class actions alleging deceptive practices connected to securities trading under state law.[19] In 2018 the ruling was upheld by a Ninth Circuit panel.[20]

In a separate action in 2014, TD Ameritrade was sued by a putative class action in New Jersey federal court; the plaintiffs accused the company of self-interested routing of client orders to maximize liquidity and order flow rebates to the detriment of its customers.[21] The plaintiffs argued that TD Ameritrade routes its clients’ orders using an algorithm that sends equity orders to the venue that pays TD Ameritrade the most money, without regard to whether that venue would provide the best execution of

that order. The plaintiffs argued that such a practice is inconsistent with a duty of best execution.

The magistrate judge found that the plaintiffs had not shown they could prove “economic harm on a class wide basis through the use of a tested algorithm”, and did not certify the class. In Sept. 2018, a district judge for the District of Nebraska reversed this decision and certified the class, finding that “the plaintiff has demonstrated each of the prerequisites for certification.”[22]

Conclusion

The current landscape of U.S. equity markets is highly fragmented. Competing exchanges attract liquidity by offering rebates to orders that make liquidity and charging fees to orders that take liquidity. Such maker-taker fees make the stock market highly complex, and may distort brokers’ incentives against their fiduciary duty. At this moment, regulators are still in the early stages of pilot programs to evaluate the impact of maker-taker fees.

Meanwhile, recent litigation is advancing in the courts arguing that such fees give brokers the incentive to violate their duty of seeking best execution for clients’ orders. With the introduction of another major exchange, the Members Exchange, and the potential increase in market fragmentation, we expect regulators and the courts to scrutinize maker-taker fees further.

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[1] “9 Financial Firms Plan to Start New Exchange to Rival Giants,” Law360, Jan 7, 2019, available at <https://www.law360.com/articles/1115772/9-financial-firms-plan-to-start-new-exchange-to-rival-giants>.

[2] U.S. House of Representatives, Committee on Financial Services, Hearing: “U.S. Equity Market Structure Part I: A Review of the Evolution of Today’s Equity Market Structure and How We Got Here”, June 27, 2017, available at <https://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=106193>.

[3] Securities and Exchange Commission, “Enhancing Our Equity Market Structure”, June 5, 2014, available at <https://www.sec.gov/news/speech/2014-spch060514mjw>.

[4] Securities and Exchange Commission, “17 CFR Parts 200, 201, 230, 240, 242, 249, and 270,” RIN 3235-AJ18 Regulation NMS (Release No. 34-51808; File No. S7-10-04), accessed Feb. 6, 2019, <https://www.sec.gov/rules/final/34-51808.pdf>.

[5] CBOE, “US Equities Market Volume Summary,” accessed Feb. 6, 2019, https://markets.cboe.com/us/equities/market_statistics/.

[6] Securities and Exchange Commission, “Memorandum: Maker-Take Fees on Equities Exchanges,” Oct. 20, 2015, available at <https://www.sec.gov/spotlight/emsac/memo-maker-taker-fees-on-equities-exchanges.pdf>. Island ECN was one of the first electronic communication networks established for the trading equities in the United States. Founded in 1996 by Datek Securities veterans Jeff Citron and

Joshua Levine, Island executed its first trades in 1997.

[7] The NYSE provides a complete schedule of maker-taker fees in the first 18 pages of its price list document. See NYSE, “Price List 2019,” accessed Feb. 6, 2019, https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSE_Price_List.pdf.

[8] Tarun Chordia, Richard Roll and Avanidhar Subrahmanyam, “Liquidity and Market Efficiency,” *Journal of Financial Economics* 87, no. 2 (2008): 249–68, <https://www.sciencedirect.com/science/article/pii/S0304405X07001833>.

[9] As the SEC has argued, “Because brokers generally charge flat per-transaction commissions, and do not pass to customers either the payments they receive for order flow or the charges they incur for exchange access fees, there can be material economic incentives for a broker to send its marketable retail orders to OTC market makers that pay for order flow.” See Securities and Exchange Commission, “Memorandum: Certain Issues Affecting Customers in the Current Equity Market Structure,” Jan. 26, 2016, available at <https://www.sec.gov/spotlight/equity-market-structure/issues-affecting-customers-emsac-012616.pdf>.

[10] *Id.*

[11] See Securities and Exchange Commission, “Memorandum: Maker-Taker Fees on Equities Exchanges,” Oct. 20, 2015, available at <https://www.sec.gov/spotlight/emsac/memo-maker-taker-fees-on-equities-exchanges.pdf>.

[12] Philip Pearson, “Takeaways from the Nasdaq Pilot Program,” ITG, June 2, 2015, <https://www.itg.com/thinking-article/takeaways-from-the-nasdaq-pilot-program/>.

[13] Jeffrey R. Black, “The Impact of Make-Take Fees on Market Efficiency” (working paper, Aug. 8, 2016), available at <https://pdfs.semanticscholar.org/8535/3b2b8f910e478864c42bcdab5c5bce5de9a8.pdf>.

[14] Securities and Exchange Commission, “Tick Size Pilot Program,” Sept. 7, 2017, <https://www.sec.gov/ticksizepilot>.

[15] José Penalva and Mikel Tapia, “Revisiting Tick Size: Implications from the SEC Tick Size Pilot,” July 20, 2017, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2994892.

[16] Securities and Exchange Commission, “SEC Adopts Transaction Fee Pilot for NMS Stocks,” press release, Dec. 19, 2018, <https://www.sec.gov/news/press-release/2018-298>.

[17] *Id.*

[18] “Schwab Clients Ask 9th Circ. to Revive Trade Routing Suits,” *Law360*, Oct. 18, 2017, <https://www.law360.com/articles/975721>.

[19] “Schwab Routing Order Class Actions Tossed, Allowing Appeal,” *Law360*, Jan. 7, 2016, <https://www.law360.com/articles/743543>.

[20] “9th Circ. Upholds Toss of Schwab Class Suit Citing SLUSA,” *Law360*, Jan. 5,

2018, <https://www.law360.com/articles/998969/9th-circ-upholds-toss-of-schwab-class-suit-citing-slusa>.

[21] "TD Ameritrade Sued over Routing of Clients' Orders," Law360, Sept. 16, 2014, <https://www.law360.com/articles/577956/td-ameritrade-sued-over-routing-of-clients-orders>.

[22] https://www.courthousenews.com/wp-content/uploads/2018/09/Ameritrade.CA_.pdf.