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June 26, 2018

Brent J. Fields
Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington DC, 20549

Re: Transaction Fee Pilot for NMS Stocks / File No. S7-05-18

Dear Mr. Fields

On behalf of Decimus Capital Markets, LLC, we appreciate this opportunity to comment on the Transaction Fee Pilot proposed by the U.S. Securities and Exchange Commission ("SEC").[1] We incorporate our prior comment letter covering maker-taker and payment for order flow issues[2] by reference, as it discussed several concepts relevant for the debate over the proposed pilot, such as the nature of the maker-taker pricing model and its impact on the interaction of on-exchange and off-exchange trading activity. Rather than focusing on technical details, our comment letter addresses several broader issues implicated by the opponents of the proposed pilot, chiefly the three major exchange groups.[3] These commenters have questioned the very need for this measure, advancing such arguments as the scenario of liquidity in equity markets being wrecked, the existence of superior alternatives, and even the SEC's lack of authority to implement the pilot.

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[1] Transaction Fee Pilot for NMS Stocks, Exchange Act Release No. 82,873, 83 Fed. Reg. 13,008 (proposed Mar. 14, 2018) (to be codified at 17 C.F.R. pts. 200 & 242), https://www.gpo.gov/fdsys/pkg/FR-2018-03-26/pdf/2018-05545.pdf.

[2] Haim Bodek, Managing Principal & Stanislav Dolgopolov, Regulatory Consultant, Decimus Capital Mkts., LLC, Comment Letter to the SEC on Certain Issues Considered by the Equity Market Structure Advisory Committee (Apr. 25, 2016), https://www.sec.gov/comments/265-29/26529-63.pdf.

[3] *See* Elizabeth K. King, Gen. Counsel & Corporate Sec'y, NYSE Grp., Inc., Comment Letter to the SEC on the Transaction Fee Pilot (May 31, 2018), https://www.sec.gov/comments/s7-05-18/s70518-3755194-162578.pdf [hereinafter NYSE Comment Letter]; Edward S. Knight, Exec. Vice President & Global Chief Legal & Pol'y Officer, Nasdaq, Inc., Comment Letter to the SEC on the Transaction Fee Pilot (May 25, 2018), https://www.sec.gov/comments/s7-05-18/s70518-3718533-162485.pdf [hereinafter Nasdaq Comment Letter]; Edward T. Tilly, Chairman & Chief Exec. Officer, Cboe Global Mkts., Inc., Comment Letter to the SEC on the Transaction Fee Pilot (May 25, 2018), https://www.sec.gov/comments/s7-05-18/s70518-3718531-162484.pdf [hereinafter Cboe Comment Letter]; *see also* Chris Concannon, President & Chief Operating Officer, CBOE, Thomas Wittman, CEO, The Nasdaq Stock Mkt. LLC, & Thomas W. Farley, President, NYSE, Comment Letter to the SEC on the Equity Market Structure Advisory Committee Recommendation for Access Fee Pilot (Oct. 13, 2017), https://www.sec.gov/comments/265-29/26529-2641078-161300.pdf [hereinafter Cboe, Nasdaq & NYSE Comment Letter].

Economics of the Maker-Taker Pricing Model and Liquidity

The utility of the proposed pilot has been said to be lacking because it would interfere with liquidity rebates and hence decrease the existing level of liquidity, as such rebates incentivize provision of liquidity and, among other things, result in lower bid-ask spreads.[4] However, these assertions need to be viewed in the context of the basic economics of the maker-taker pricing model. The first principle, which is hardly controversial, is that access fees generally serve as the funding base for liquidity rebates. Accordingly, the aggregate amount of access fees tends to be larger than the aggregate amount of liquidity rebates, with the difference between these two amounts being collected by trading venues themselves. As a result, the magnitude of a liquidity rebate is typically smaller than the magnitude of an access fee, although several exchanges employ a multitiered approach.[5] The second principle is that, in addition to bid-ask spreads as an imperfect proxy for liquidity, other direct and indirect costs of liquidity takers have to be taken into account, as such costs could be significant in the context of maker-taker arrangements. More specifically, beyond displayed / realized prices, one must also account for access fees borne by liquidity takers and, oftentimes, commissions paid to brokerage firms by their customers. Some brokerage firms have pass-through arrangements with their customers with respect to access fees and liquidity rebates, while many other firms do not, especially for retail customers. However, even in the latter scenario, it is naïve to assume that any windfall or significant costs in connection with changes to fee-rebate structures would be fully absorbed by brokerage firms instead of being accounted for in their cost structure, depending on the relevant mix or liquidity making and liquidity taking orders, and ultimately passed on to their customers. While there could be winners and losers among brokerage firms or different types of customers, it is hard not to see a potential benefit from lower access fees to customers in the inherently competitive brokerage industry.

Keeping in mind these two basic principles as accounting identities, it is clear that any rebate-based price improvement offered by liquidity makers is paid for by liquidity takers themselves. In other words, there is no unambiguous improvement in liquidity based on the fixed aggregate amounts of access fees and liquidity rebates alone. Holding other things constant, liquidity takers pay *more* in the form of access fees for what they get in terms of tighter bid-ask spreads financed

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[4] *See*, *e.g.*, Cboe Comment Letter, *supra* note 3, at 3 ("[T]he Pilot will disrupt the pricing structures for 3,000 equity securities and likely impact investors by increasing effective spreads and lowering liquidity."); Cboe, Nasdaq & NYSE Comment Letter, *supra* note 3, at 5 ("It is well understood that reduced access fees will result in reduced rebates, and as a result, displayed liquidity on exchanges will decrease and spreads will widen. Because companies whose securities are forced to participate in the pilot will incur costs in terms of worse prices and lower liquidity, the Exchanges believe that issuers should have a voice in whether they would be included in the pilot."); NASDAQ Comment Letter, *supra* note 3, at 2, 6 ("Achieving an artificial reduction in fees is no substitute for a narrow NBBO, which is placed at risk by the Proposal. . . . The Proposal, as designed, risks disincentivizing liquidity providers from posting displayed limit orders thus either increasing spreads or reducing the depth of displayed market liquidity or both which will harm the US equities market ecosystem – particularly for less liquid securities."); NYSE Comment Letter, *supra* note 3, at 3 ("Although the Commission acknowledges that wider spreads directly impact investors' execution costs, it has failed to consider that the Proposal would cause broker-dealers to widen spreads in response to lower exchange rebates as access fees fall and, in doing so, would negatively impact investors' execution quality by increasing the costs to investors by at least $1 billion per year.").

[5] As observed by the SEC in its overview of the existing variety of fee-rebate structures, including the peculiarities associated with inverted structures, "Seven exchanges have some categories of rebates that exceed the maximum access fees charged by exchanges." Transaction Fee Pilot for NMS Stocks, 83 Fed. Reg. at 13,049 & tbl.2.

by liquidity rebates (with the remainder being collected by trading venues), and no additional liquidity is being costlessly created. However, that is not to say that the maker-taker pricing model is completely unjustified, given numerous frictions in the real word, such as the binding tick size and the lack of subpenny quoting in most stocks. While various fee-rebate structures redistribute wealth between makers and takers of liquidity, some fee-rebate combinations along a wide range of possible scenarios are more economically efficient than others, resulting in enhanced liquidity for the marketplace as a whole on a number of dimensions, such as bid-ask spreads and order book depth. Of course, that is the very premise of the proposed pilot that would experiment with different levels of access fees, as well as a much-needed zero-rebate bucket. This approach is critical, especially given a collective action perspective on maker-taker arrangements and potential problems with unilateral action by any individual trading venue. Overall, the purported straightforward link tying higher access fees, higher liquidity rebates, and enhanced liquidity (or, alternatively, restrictions on access fees, lower liquidity rebates, and diminished liquidity) simply does not exist when all costs, both direct and indirect, are taken into account. Neither a consistent relationship nor a virtuous circle among these variables should be assumed. Accordingly, this purported link misinforms the debate on the proposed pilot and deserves to be completely dismissed.

As asserted by the NYSE, "While exchange transaction fees are paid by broker-dealers and, as the Commission notes, are not typically passed on to investors, the size of the bid-ask spread directly impacts investors' execution price and direct costs."[6] However, even in the absence of pass-through arrangements, it is illogical to focus on bid-ask spreads alone, while ignoring indirect costs ultimately absorbed by customers, such as brokerage commissions that reflect brokerage firms' costs and revenues over some time horizon. Moreover, the NYSE makes the following prediction about the impact of the pilot: "While all investors would absorb the costs of wider spreads, the benefits from the proposed reduction in access fees would accrue primarily to sell-side brokers and proprietary traders, leaving institutional and retail investors with increased costs and no corresponding benefit."[7] Once again, this argument ignores that lower access fees would, in some fashion, be indirectly passed on to such institutional and retail investors. At the same time, recognizing the impact of changes in fee-rebate structures on brokerage firms in the absence of pass-through arrangements, the NYSE criticizes the position taken by the SEC: "The Commission assumes, without support, that broker-dealers would not be able to account for lost rebate revenue by 'significantly increas[ing]' their commission fees because 'competition among broker-dealers' would prevent them from doing so."[8] Notably, the SEC's discussion of the pilot's impact on brokerage commissions appears to be focused on the scenario of higher costs imposed on brokerage firms in the form of smaller liquidity rebates collected by such firms,[9] while the effect

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[6] NYSE Comment Letter, *supra* note 3, at 6 (footnote omitted).
[7] *Id.* at 13.
[8] *Id.* at 13 (quoting Transaction Fee Pilot for NMS Stocks, 83 Fed. Reg. at 13,065).
[9] Transaction Fee Pilot for NMS Stocks, 83 Fed. Reg. at 13,064–65. This discussion was centered around Test Group 3 that would have a ban on liquidity rebates, while leaving the current access fee cap unchanged. However, as noted by the SEC, one possibility is that the level of access fees would be pushed down in light of the mandated lack of liquidity rebates, presumably as a result of competition among securities exchanges. *See id.* at 13,065. On the other hand, this issue illustrates that an additional test group with a ban of liquidity rebates *and* a lower access fee cap might be desirable. In fact, such a test group has been recommended by other commenters. *See, e.g.*, Tyler Gellasch, Exec.

of lower access fees paid by these firms may ultimately predominate for at least some of them, depending on the relevant breakdown of orders and characteristics of the customer base in question.

In opposition to the proposed pilot, its alleged substantial costs in the form of wider bid-ask spreads are quantified: “NYSE Group estimates that annual trading costs to investors would increase by at least $1 billion per year during the course of the Transaction Fee Pilot as a result of these widening spreads.”[10] The NYSE study assumes that the “blended access fee reduction” is identical to the “rebate reduction,” which is used to calculate widened bid-ask spreads.[11] Another key assumption is as follows: “We . . . assess principal and agency flow differently as principal flow is impacted by both explicit exchange fees and spread costs, while the ultimate customer behind an agency order incurs spread costs but usually does not pay explicit exchange fees. We also assume that the principal flow benefit from the fee reduction applies to maker/taker activity, but the higher spread cost applies to all principal and agency flow in the market.”[12] The approach that compressed access fees should be *mechanically translated* into wider bid-ask spreads and hence large costs borne by the marketplace as a whole, while ignoring various potential indirect benefits of lower access fees (e.g., lower brokerage commissions), cannot yield meaningful results and, therefore, should not even be extrapolated. The double-sided nature of liquidity as a balance of various costs and benefits to both makers and takers must be taken into account. Overall, the proposed pilot would be valuable in generating concrete information and more preferable to back-of-the-envelope calculations based on questionable assumptions.

Liquidity of Smaller-Cap Stocks

One of the common concerns relating to the proposed pilot is the potential impact of changes in maker-taker arrangements on the smaller-cap space.[13] However, several observers, including the undersigned, have questioned the significance of liquidity rebates for making markets in less liquid / smaller-cap stocks.[14] Being constrained by the existing fee cap of 0.3 cents per share, the maker-

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Dir., Healthy Mkts. Ass’n, Comment Letter to the SEC on the Transaction Fee Pilot 16 (May 24, 2018), https://www.sec.gov/comments/s7-05-18/s70518-3704495-162465.pdf.

[10] NYSE Comment Letter, *supra* note 3, at 6.

[11] *Id.* App. at 4-19 to 5-19.

[12] *Id.* App. at 5-19.

[13] *See, e.g.*, Cboe Comment Letter, *supra* note 3, at 28 (“[T]he Pilot should exclude less active stocks as the liquidity in such stocks will likely be severely and negatively impacted by this Pilot.”); Nasdaq Comment Letter, *supra* note 3, at 9 (“The very incentives that the Commission seeks to limit are meant to directly benefit small and medium sized companies, which may have less liquidity in the trading of their securities. Liquidity rebates can be critical for such securities to motivate market makers to support the stock with aggressive and actionable quotations.”); *see also* U.S. DEP’T OF THE TREASURY, A FINANCIAL SYSTEM THAT CREATES ECONOMIC OPPORTUNITIES: CAPITAL MARKETS 63 (Oct. 2017), https://www.treasury.gov/press-center/press-releases/Documents/A-Financial-System-Capital-Markets-FINAL-FINAL.pdf (“Treasury recommends that the SEC exempt less liquid stocks from the restrictions on maker-taker rebates and payment for order flow if such exemptions promote greater market making.”).

[14] *See* Bodek & Dolgopolov, *supra* note 2, at 6; Stanislav Dolgopolov, *Regulating Merchants of Liquidity: Market Making from Crowded Floors to High-Frequency Trading*, 18 U. PA. J. BUS. L. 651, 726–27 (2016), https://ssrn.com/abstract=2677087; Eric Stockland, *Liquidity, Spreads, and Incentives: Are Rebates Needed for Illiquid Stocks?*, MEDIUM (Sept. 28, 2017), https://medium.com/boxes-and-lines/liquidity-spreads-and-incentives-are-rebates-needed-for-illiquid-stocks-ca15c418b426.

taker pricing model operates at subpenny magnitudes and hence effectively provides a synthetic subpenny pricing mechanism for each trading venue. Accordingly, the marginal incentive to provide liquidity created by this model is likely to be weak in the smaller-cap space typically characterized by wide bid-ask spreads (i.e., measured in multiple ticks). In any instance, the proposed pilot with smaller-cap stocks being included is an important step for determining whether the argument about diminished liquidity in the smaller-cap space is real or a red herring altogether.

Interestingly, an empirical study of changes in maker-taker arrangements on two European trading venues owned by BATS suggested, with some cautionary statements about the implications for broader market changes, that "an elimination of the make fee and a reduced take fee cap would result in worse market quality for large capitalization stocks but *better market quality for small capitalization stocks*."[15] If anything, this study indicates that the link articulated by the opponents of the proposed pilot is at best uncertain and that the pilot *may* in fact result in improved liquidity for smaller-cap stocks. Moreover, this study offers at least some support to the SEC's conclusion in connection with the inclusion of smaller-cap stocks that "the proposed Pilot would reduce exchange transaction fees for certain Test Groups . . . thereby making it less expensive—and consequently more attractive—to transact in those securities on an exchange, which also may offset the reduced rebate incentive and attract liquidity providers."[16] In our opinion, it is imperative to include a set of smaller-cap stocks in the pilot, as the opponents' claims on the existence of unambiguous harm to liquidity appear to be exaggerated and driven by preconceived notions.

Balance Between On-Exchange and Off-Exchange Trading Activity

The proposed pilot is all but guaranteed to shift the balance of on-exchange and (largely dark) off-exchange trading activity. However, its direction and magnitude cannot be known in advance, which underscores the importance of experimentation. The pilot's opponents appear to describe it as a measure that would provide a major advantage to non-exchange trading venues and dark liquidity.[17] Furthermore, they even deny that reduced access fees could make lit markets more attractive: "The Commission baselessly states that the Proposal may even 'improve the competitive position of exchanges vis-à-vis ATSs.'"[18] However, the cost of accessing lit markets

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[15] Marios Panayides et al., *Trading Fees and Intermarket Competition* 26 (Charles A. Dice Ctr. for Research in Fin. Econ., Ohio State Univ., Working Paper No. 2017-3, 2017), https://ssrn.com/abstract=2910438 (emphasis added). One of the proxies for liquidity was captured by bid-ask spreads. *See id.* at 20 ("[F]or Small stocks relative volume increases significantly by 1.45%, relative depth increases albeit insignificantly by 1.47%, and relative spread narrows significantly by 6.58%. This is the outcome we would predict if BXE traders in Small capitalization stocks are primarily focused on the take fee reduction."). Moreover, the impact on larger-cap stocks described in this study also has to be considered from the standpoint of the greater significance of the maker-taker economics for true spread measurements.

[16] Transaction Fee Pilot for NMS Stocks, 83 Fed. Reg. at 13,019.

[17] *See, e.g.*, NYSE Comment Letter, *supra* note 3, at 6 ("[N]ot only would the Proposal cause irreparable economic harm to the national securities exchanges, but it also risks undermining investor protections and market quality by diverting substantial market share to off-exchange, dark venues.")

[18] NASDAQ Comment Letter, *supra* note 3, at 6 (quoting Transaction Fee Pilot for NMS Stocks, 83 Fed. Reg. at 13,016); see also NYSE Comment Letter, *supra* note 3, at 16 ("[T]he Commission's statement that '[l]ower access fees . . . could attract marketable order flow from the ATSs and back to the exchanges, which could tilt the competitive equilibrium in favor of the national securities exchanges' is . . . flawed. The Commission appears to believe that lower

in the form of access fees on securities exchanges has been one of the key drivers behind the continuing proliferation of non-exchange trading venues. In light of this expansion of dark pool activities and captive retail order flow executed off-exchange, the competitive advantage of lower access fees in lit markets, as described by the SEC, should not be dismissed.

Furthermore, the impact of the proposed pilot on off-exchange liquidity is not so one-sided. For instance, the opponents of the pilot point to the potential threat presented by the business model of off-exchange market making: "[B]roker-dealer internalizers offer other incentives to route orders to them, such as through payment for order flow, which is the economic equivalent of the 'taker-maker' fee model."[19] However, taking into account that off-exchange market makers pay for *marketable* (i.e., liquidity taking) retail order flow that typically would have incurred access fees on securities exchanges anyways, it is at least ambiguous how the proposed pilot would compromise the competitive position of securities exchanges vis-à-vis off-exchange market makers. A more tangible concern relates to non-marketable retail order flow directed to off-exchange market makers.[20] However, as pointed out in our prior comment letter, there is evidence that at least a portion of such order flow is rerouted by off-exchange market makers to securities exchanges to monetize maker-taker arrangements and perhaps to take advantage of volume-based tiers not available to retail brokerage firms themselves.[21] Moreover, at least when such information is available, off-exchange market makers appear to offer higher payment for order flow rates for non-marketable order flow, which is likely to be influenced by maker-taker arrangements on securities exchanges and thus indicate subsequent routing to lit markets. On a related note, several key firms combine the roles of an off-exchange market maker and a designated on-exchange market maker, which also underscores the importance of the proposed market maker exemption for Test Group 3.[22]

Overall, as illustrated by the above discussion of off-exchange market making, the proposed pilot could shed some light on this complex interaction between on-exchange and off-exchange trading activity, as well as relevant direct and indirect costs to investors. At the same time, additional measures aimed at the transparency of fee-rebate structures of non-exchange trading venues and reporting obligations imposed on these entities in connection with the pilot might be needed.

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access fees are the primary force driving order flow to off-exchange venues and that lowering those fees would necessarily result in order flow returning to the exchanges. However, the Commission fails to account for the fact that market participants choose to send orders to off-exchange venues for reasons other than avoiding fees." (quoting Transaction Fee Pilot for NMS Stocks, 83 Fed. Reg. at 13,068)).

[19] NYSE Comment Letter, *supra* note 3, at 4.

[20] *See, e.g.*, Cboe Comment Letter, *supra* note 3, at 7 ("Retail limit orders could be increasingly processed away from exchanges by wholesalers who would not be subject to the same price controls and could offer unconstrained fee rebates and other incentives (such as sub-penny price improvement).").

[21] Bodek & Dolgopolov, *supra* note 2, at 9–10.

[22] The practice of paying designated market makers higher liquidity rebates and / or charging them lower fees of various types has an established history and certainly reinforces the maintenance of a balance between trading obligations and privileges necessary for enhanced liquidity. On a related note, the market maker exemption for non-rebate incentives contemplated by the pilot needs to be crafted to balance the desirable incentive of bringing agency / captive order flow to lit markets and the undesirable incentive of inferior routing of such order flow influenced by maker-taker arrangements.

Recommendations

We express our support for the proposed pilot and its speedy adoption and urge the SEC to focus on crafting the pilot's technical details, such as key concerns about approaches to generation of data, confidentiality, the creation of a test group with a ban on liquidity rebates and a lower access fees cap, and the scope of the market making exemption that have been voiced by a variety of commenters. On the other hand, the argument that the pilot is not needed in the first place should be dismissed. Moreover, given numerous difficulties with drawing conclusions from changes made by individual trading venues, it is critical to adopt a market-wide approach to studying the impact of maker-taker arrangements on liquidity of both larger-cap and smaller-cap stocks, the market making segment of the securities industry, and the balance between on-exchange and off-exchange trading activity. While surprising results are possible, this experimentation would be valuable as a concrete measure contributing to a holistic reevaluation of the existing equity market structure. Tellingly, while the latest comment letters by Cboe, Nasdaq, and NYSE reference a pivotal report by the U.S. Department of the Treasury to criticize the Transaction Fee Pilot from the standpoint of preferred alternatives and a holistic approach,[23] these comment letters fail to mention that this very report viewed such experimentation favorably: "Treasury supports a pilot program to study the impact reduced access fees would have on investors' execution costs or available liquidity."[24] Despite a potential bias to underestimate the pilot's implementation costs and unintended consequences, various concerns presented by the current state of maker-taker arrangements, such as conflicts of interest, inferior routing, and the escalation and complexity of exchange fees, are very much real. Economic harm associated with some practices growing out of maker-taker arrangements, particularly inferior routing, is susceptible to measurement, as confirmed by our ongoing academic and litigation-related work.

Once again, we thank you for this opportunity to comment on the Transaction Fee Pilot, which promises to be an important step in reforming the architecture of our securities markets.

Sincerely,

Haim Bodek
Managing Principal
Decimus Capital Markets, LLC

Stanislav Dolgopolov
Chief Regulatory Officer
Decimus Capital Markets, LLC

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[23] *See* Cboe Comment Letter, *supra* note 3, at 12, 28; Nasdaq Comment Letter, *supra* note 3, at 1, 3–4, 13; NYSE Comment Letter, *supra* note 3, at 18.

[24] U.S. DEP'T OF THE TREASURY, *supra* note 13, at 62. Likewise, the collective letter by these three exchange groups from last year references this report but omits any discussion of the Treasury Department's support for such a pilot program. *See* Cboe, Nasdaq & NYSE Comment Letter, *supra* note 3, at 2–6.