Edward T. Tilly
Chairman and Chief Executive Officer

May 25, 2018

Via Electronic Submission

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

Re: Proposed Transaction Fee Pilot for NMS Stocks; S7-05-18

Dear Mr. Fields:

Cboe Global Markets, Inc. ("Cboe"), on behalf of BZX Equities, BYX Equities, EDGX Equities, and EDGA Equities (collectively, the "Cboe Exchanges"), submits these comments on the Securities and Exchange Commission's ("Commission" or "SEC") proposal to implement a Transaction Fee Pilot for National Market System ("NMS") stocks (the "Pilot").[1] Cboe understands and appreciates that as the equities market evolves the Commission must review and refine components of market structure. In fact, Cboe has supported, and continues to support, the Commission's efforts to analyze current market structure and propose thoughtful improvements. However, this proposal misses the mark, as the Commission failed to conduct an exhaustive and true review of the equities market. Cboe has considerable reservations about the price control Pilot, including that the proposal is attempting to address a problem that has not been meaningfully identified or articulated. Cboe also respectfully questions the Commission's logic and legal authority to impose federal price controls as proposed.

[1] Securities Exchange Act Release 82873 (March 14, 2018), 83 FR 13008 (March 26, 2018) (the "Release").

Cboe is a prominent equities exchange operator, representing approximately 20% of the total average daily volume in the U.S. equities market. BZX Equities and EDGX Equities offer maker-taker pricing[2] and each represents approximately 7% of the industry's average daily volume. BYX Equities offers taker-maker pricing (i.e., "inverted" pricing)[3] and represents approximately 5% of the average daily volume. EDGA Equities offers low and flat transaction fee pricing and represents approximately 1% of the average daily volume.[4] Needless to say, the proposal squarely and adversely impacts the manner in which Cboe charges for equities transactions; however, it is concerning for many additional reasons.

The Commission is proposing to perform a large-scale experiment on the deepest, most liquid, and most coveted equities market in the world. This, despite demonstrable evidence that investor execution quality is higher than ever before. Vibrant competition has significantly reduced costs for investors and for their brokers. Order competition is robust, and competition amongst trading venues is resulting in new products, services, and creative and appealing fee structures. (*See* Appendix I for a breakdown of market share based on venue type and fee structure). Market participants are not only enjoying a low-cost and competitive environment, there are numerous fee constructs and pricing levels to choose from. For example, the Cboe Exchanges offer a mix of maker-taker pricing, taker-maker pricing, and flat fee pricing for providing and removing liquidity. Cboe Exchanges' access fees currently vary between assessing a $0.0030 fee for removing liquidity to receiving a payment of up to $0.0017 for removing liquidity.[5]

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[2] Maker-taker pricing is a fee model in which an exchange generally pays a per share rebate to provide (i.e., "make") liquidity in securities (upon execution) and assesses a fee to remove (i.e., "take") liquidity. It is one of many transaction fee models in the U.S. securities markets.

[3] Taker-maker pricing is a fee model in which an exchange generally pays a per share rebate to the remover of liquidity and assesses a fee to provide liquidity.

[4] EDGA Equities assesses a flat fee for providing liquidity and removing liquidity.

[5] The variety of fee structures on Cboe Exchanges results in an effective removal rate for all Cboe Exchanges of approximately $0.0024. The national aggregate removal rate is potentially lower as off-exchange removal costs generally trend lower than lit markets. *See* Cboe BZX U.S. Equities Exchange Fee Schedule, *available at*

Importantly, in focusing on exchange access fees, it should be understood that exchange access fees are remarkably low. On average, for every $1.00 invested in the equities market, the maximum exchange access fee (i.e., $0.0030) comprises less than 0.006% compared to 0.29% ten years ago.[6] Retail investors are also benefiting from historically low trading commission rates following 30-40% reductions implemented by major brokerage firms in March 2017.[7]

Unfortunately, the proposed price control Pilot appears to ignore these important trends and the positive investor experience enjoyed today. Rather, the Pilot will disrupt the pricing structures for *3,000* equity securities and likely impact investors by increasing effective spreads and lowering liquidity. We estimate that if this Pilot causes effective spreads to widen by as little as 10% for only the top 100 securities, the Pilot would conservatively cost investors over $400,000,000 more in annual execution costs. A central question is why take such a drastic price control measure? Presumably, the primary justification for the Pilot is to gather data to study 'potential' conflicts of interest in broker order routing. *Yet, most rebates are paid to liquidity providers that do not have customers and do not act in an agency capacity.*[8] Investors benefit greatly from the liquidity provided by these market-making firms. Cboe asserts that the SEC's price control Pilot is unnecessary, that data resulting from the Pilot will not yield useful information, and that potential conflicts of interest can be examined and addressed in much

https://markets.cboe.com/us/equities/membership/fee_schedule/bzx/ (assessing a $0.0030 taker fee) and Cboe BYX U.S. Equities Exchange Fee Schedule, *available at* https://markets.cboe.com/us/equities/membership/fee_schedule/byx/ (providing a $0.0005 taker rebate).

[6] The $0.0030 access fee cap was 0.29% of the Average Share Price in 2008 and is only .006% in 2018 YTD.

[7] *See* Adam Shell, *E-Trade Cuts Trading Fees in Escalating Price War*, USA TODAY, March 2, 2017, https://www.usatoday.com/story/money/markets/2017/03/02/etrade-online-price-wars/98626998/ (last visited May 22, 2018).

[8] The proposal lacks any analysis of the critical differences between the principal and agent functions. While basing the proposal on a stated need to analyze potential conflicts of interest by agents, it ignores and fails to address that rebates are generally paid to principal traders, such as registered market-makers.

less intrusive ways and without subjecting the equities market and investors to potentially significant harm.

The Proposal

The Commission proposes to include in the Pilot all exchanges, including inverted exchanges, and exclude Alternative Trading Systems ("ATSs") and other non-exchange venues. The Pilot is designed to include all NMS stocks with a share price of at least $2.00 per share that do not close below $1.00 per share during the Pilot ("Pilot Securities"), which is estimated to include approximately 3,000 stocks. The Commission proposes three test groups and a control group with the following attributes.

- Test Group 1 (1,000 stocks): $0.0015 fee cap
- Test Group 2 (1,000 stocks): $0.0005 fee cap
- Test Group 3 (1,000 stocks): rebates and linked pricing prohibited; existing $0.0030 cap applies
- Control Group (remaining Pilot Securities): existing $0.0030 cap applies

The Commission proposes to implement the Pilot for a duration of two years with an automatic sunset at one year, giving the Commission the authority to suspend the sunset and allow the Pilot to continue for the full two-year term. The Commission is also proposing a six-month pre-Pilot Period, as well as a six-month post-Pilot Period. The Commission states that the pre-Pilot Period is intended to gather data to serve as a baseline against which to assess the effects of the proposed Pilot, and the post-Pilot Period is intended to help assess any post-Pilot effects following the conclusion of the proposed Pilot. The Commission proposes to provide notice of the start and end dates of the pre-Pilot, Pilot, and post-Pilot Periods one month prior to the start of the pre-Pilot Period.

The Pilot Seeks to Address a Concern That Has Been Insufficiently Articulated

Regretfully, the Commission's pilot proposal is a solution in search of a problem. Of great concern is that the Pilot could adversely disrupt a well-functioning marketplace. Significant risk is presented when a government agency subjects 3,000 stocks to a federal price control Pilot in the absence of any crisis or urgent need. This Pilot would not only upend how exchanges price transactions to differentiate themselves and compete, it would also remove an important tool that exchanges utilize to attract liquidity to their markets and to tighten spreads.

Competition in the equities marketplace is fierce. There are 13 equity exchanges, 34 ATSs, and many other non-exchange equity execution venues, such as internalizers and wholesalers. Market models vary considerably between many of these platforms and they are constantly refined to the benefit of investors. Today, market share is meaningfully dispersed,[9] and market quality in recent years (as measured by spreads and cost) is truly better than ever.[10]

The Commission has provided no evidence that existing fee practices are harming investors or interfering with fair competition. Indeed, there has not been a market failure attributable to exchange transaction fee pricing. Thus, the question remains: what is the problem the Commission is trying to address? At a minimum, that should be clearly articulated before implementing a significant market structure change across a sizable portion of the equities market. Other corners of the equities market landscape have drawn criticism from commenters, including how large investor orders are processed, how less-liquid stocks trade,

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[9] As of May 2018, approximate market volume per exchange was as follows: EDGX Equities, 7.75%; BZX Equities, 7%; BYX Equities, 5.25%; EDGA Equities, 1.5%; NYSE, 9.25%; NYSE Arca, 9.25%; NYSE American, .35%; NASDAQ, 15%; NASDAQ BX, 3.25%; NASDAQ PSX, 1%; IEX, 2.5%; and CHX, .5%.

[10] *See* James J. Angel, Lawrence, E. Harris, and Chester S. Spatt, *Equity Trading in the 21st Century: An Update*, Knight Capital Group, June 21, 2013 (showing low transaction costs, high market depth, low effective spreads, etc.); Angel, Harris, *Spatt, Equity Trading in the 21st Century*, Knight Capital Group, February 23, 2010, *available at* https://www.sec.gov/spotlight/emsac/equity-trading-in-the-21st-century.pdf (showing reductions in bid-ask spreads, retail commissions, etc.).

and whether market fragmentation is adversely impacting investors. This proposal ignores those issues, despite the fact that virtually all aspects of equity market structure are intertwined. A holistic review would be more appropriate; rather than a 3,000 stock pilot focused primarily on setting price controls on exchange rebates – which experts have concluded help to tighten spreads.

It is important to note that unlike non-exchange trading venues, every single exchange transaction fee in place today was filed with, and processed by, the Commission. That means that every fee rate and fee structure could have been suspended or abrogated by the Commission if that were deemed necessary. If any existing fees were inconsistent with the Securities Exchange Act of 1934 (the "Act"), the SEC would certainly have used its suspension powers to intervene. Yet, despite processing every fee in place today, fierce competition in the equities market, and irrefutable improvements in market quality, the Commission is now proposing to meaningfully impact equity market structure by curtailing the amount and manner that exchanges can charge for executions for thousands of stocks. Again, for what critical reason? In our view, this rulemaking is not rational, nor sufficiently justified.

The Proposal Would Have Significant Adverse Economic Effects on Exchanges and on Efficiency, Competition, and Capital Formation

The Act requires the Commission to consider the effect of a proposed rule on efficiency, competition, and capital formation,[11] and prohibits the adoption of a rule that would impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[12] The Commission has a "statutory obligation to do what it can to apprise itself – and hence the public and the Congress – of the economic consequences of a proposed regulation before it decides whether to adopt the measure."[13]

11 15 U.S.C. §78c(f).
12 *Id.* §78w(a)(2).
13 *Chamber of Commerce v. SEC*, 412 F.3d 133, 144 (D.C. Cir. 2005).

The price control Pilot would greatly inhibit efficiency, competition, and capital formation. As discussed in this letter, the adverse impact on investors and issuers could be significant. However, exchanges could also be needlessly impacted. Simply put, the Pilot will likely be harmful to investors and equities exchanges including the Cboe Exchanges. Looking more closely, because the Pilot significantly restricts the ability of equity exchanges to provide rebates to resting orders (i.e., to liquidity providers), Cboe estimates that significant exchange market share could be lost to non-exchange venues that are not subject to the Pilot. 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). Further, as exchange spreads would likely widen with reduced or no rebate incentives, investors could receive worse execution prices and more orders would migrate to dark venues for price improvement over the posted and degraded NBBO. Indeed, by eliminating or constraining exchange rebates, Cboe estimates that the three test groups could impact a sizable portion of total market volume. This in turn could adversely impact liquidity available to investors as well as Cboe's U.S. equity transaction revenue.[14] The irony of the SEC's price control Pilot, as conceived, would be the likely shift of liquidity from the transparent, regulated exchange markets to non-transparent, lightly regulated dark pools.

The SEC's Division of Trading and Markets ("Division") has stated that "the payment of transaction-based rebates is a primary tool that exchanges use to compete with off-exchange venues."[15] The Division has also stated that "[i]f exchanges' competitive viability vis-à-vis non-exchange venues is materially diminished to the point where it impacts the exchanges' central

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[14] Cboe does not agree with the Commission's preliminary estimate on revenue impacts.

[15] Memorandum on Maker-Taker Fees on Equities Exchanges from the Commission's Division of Trading and Markets to the Market Structure Advisory Committee (October 20, 2015) at 13, *available at* https://www.sec.gov/spotlight/emsac/memo-maker-taker-fees-on-equities-exchanges.pdf ("Maker-Taker Fees Memorandum").

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."[16] Cboe agrees.

A rulemaking that could instantly shift market share on such a large scale and so drastically alter market behavior should only be deployed in order to address a grave market crisis. An uneven competitive balance already exists today between exchanges and non-exchange execution venues. For example, non-exchange venues generally have less regulatory oversight, and unlike exchanges, non-exchange venues are not required to file fee changes with the Commission for review and potential suspension. Non-exchange venues may also assess different fees for different customers, and may offer sub-penny price improvement.

Moreover, while some dark pool operators may dispute this characterization, there is no question that dark pools and their operations are much less transparent and enjoy the benefit of additional flexibility as compared to exchanges. For instance, last year Cboe proposed a new mechanism to match closing interest at the price later established by the primary listing market for the applicable security.[17] That process was transparent and generated significant public debate, including over 60 public comment letters. The proposal was ultimately approved by Commission staff but later appealed to the Commission for further review, generating another round of briefing by Cboe and opponents of the proposal. The proposal still awaits action by the Commission, more than one year after it was initially filed. By contrast, a sizeable dark pool just announced this week that it would launch exactly the same service in mid-June – no lengthy approval process, no public debate. This proposal would magnify the competitive imbalance in contravention of the purposes of the Act. The critical role in capital formation played by exchanges would be hindered as exchanges struggle to compete

[16] Maker-Taker Fees Memorandum at 12.

[17] *See* Securities Exchange Act Release No. 80683 (May 16, 2017), 82 FR 23320 (May 22, 2017) (SR-BatsBZX-2017-34).

with non-exchanges. To be clear, Cboe is not championing changes to the current framework for non-exchange equity trading venues and practices. We do not view dramatic structural changes, such as a Trade-at, as appropriate equity market structure solutions at this time. However, this price control Pilot will create a stark competitive imbalance between on and off-exchange equity venues which could damage the benefits equity investors enjoy in the current market environment.

The Commission Lacks Statutory Authority to Impose the Proposed Price Controls

Cboe respectfully submits that the Commission has not sufficiently identified the statutory authority to impose price controls on transaction fees as proposed. Congress's intent in enacting the 1975 Amendments to the Exchange Act was to foster competition so that the *market*—rather than government mandate—would determine prices. The principal purpose of the amendments was to facilitate the creation of a national market system for the trading of securities. Congress intended that this "national market system evolve through the interplay of *competitive forces* as unnecessary regulatory restrictions are removed."[18] Other provisions of the Act confirm that intent. For example, the Act provides that an exchange must design its rules "to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest."[19] The Act also grants the Commission authority to amend or repeal "[t]he rules of [an] exchange [that] impose any burden on competition not necessary or appropriate in furtherance of the purposes of this chapter."[20] The promotion of free and open competition was a core Congressional purpose in creating the national market system.[21] The Commission has

[18] *See* H.R. Rep. No. 94-229, at 92 (Conf. Rep.) (emphasis added).
[19] 15 U.S.C. § 78f(b)(5).
[20] *See Id.* §§ 78f(b)(8) and 78s(c).
[21] *See also* 15 U.S.C. § 78k-1(a)(1)(C)(ii) (purposes of Exchange Act include to promote "fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets"); Order, 73 Fed. Reg. at 74781 ("The Exchange Act and its legislative history strongly support the

historically interpreted that mandate to permit competitive forces to determine prices. The Commission's proposal conflicts with the purposes of the Exchange Act and departs from Commission precedent to the extent that it purports to cap fees for transactions that do not implicate intermarket price protection, and also to the extent that it bans linked pricing. Indeed, as is the case with rebates, linked pricing has been utilized by exchanges with SEC consent for years.

Across-the-board price controls are inconsistent with Exchange Act Section 19(b)(3)(A), which provides that ". . . a proposed rule change shall take effect upon filing with the Commission if designated by the self-regulatory organization as . . . (ii) establishing or changing a due, fee, or other charge imposed by the self-regulatory organization."[22] This section of the Act plainly contemplates that *exchanges*, rather than the SEC, will make an initial determination as to the price of a particular product or service, and that that price will take effect immediately upon filing. To be sure, the Act also provides that the Commission may suspend such rules within 60 days if it determines that such action is in the public interest.[23] Subject to that oversight, though, fee setting is the province of each exchange, subject to the competitive forces that naturally control fees.

The proposed price control Pilot disrupts this statutory balance by mandating that thousands of stocks be subject to new fee cap levels. The immediate filing/suspension process chosen by Congress, however, created a system whereby *market forces* determine fees in the vast majority of cases, subject to oversight only in particular situations. The Exchange Act does not contemplate that the government would impede the competitive process and become a

Commission's reliance on competition, whenever possible, in meeting its regulatory responsibilities for overseeing the SROs and the national market system.").

[22] 15 U.S.C. § 78s(b)(3)(A).

[23] *Id.* §§ 78s(b)(3)(C).

fee-setting authority. In addition, calling something a "pilot" does not permit the Commission to act outside of its federal statutory authority.

As both the Commission and academic commentators have noted, price controls are an extraordinary, disfavored form of government regulation.[24] For that reason, numerous federal agencies have abandoned price-setting in favor of more market-based approaches to reviewing fees for reasonableness.[25] There is no need for fee caps of any sort, and certainly not on transactions that do not implicate price protection.

The Proposal is Severely Flawed

The price control Pilot is replete with flaws and inconsistencies that will prevent any meaningful conclusions and could harm exchanges, investors, and the public interest. The Pilot's flaws include the following:

Lacks a Holistic Review of Regulation NMS. The U.S. equities market operates under a complex interconnected regulatory regime. The proposal seeks to arbitrarily adjust one component of that structure instead of focusing on a comprehensive review of the entire equities market. This is short-sighted and ill-advised and will not work. Cboe is not positing

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24 *See e.g.*, Report of the Advisory Committee on Market Information: A Blueprint for Responsible Change, at § VII.D.3 (SEC Sept. 14, 2001) ("the 'public utility' cost-based ratemaking approach," for example, "is resource-intensive, involves arbitrary judgments on appropriate costs, and creates distortive economic incentives."); *See also* Stephen G. Breyer, *Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternatives, and Reforms*, 92 HARV. L.REV. 547, 565 (1979) ("insofar as one advocates price regulations… as a 'cure' for market failures, one must believe the market is working very badly before advocating regulation as a cure. Given the inability of regulation to reproduce the competitive market's price signals, only sever market failure would make the regulatory game worth the candle."); and Richard B. Stewart, Reconstitutive Law, 46 MD. L. REV. 86, 88 (1986) ("the shift from federal price and entry controls in transportation, finance, and communications to reliance on competitive markets policed by antitrust law has created enormous benefits for consumers").

25 *See, e.g.*, *Elizabethtown Gas Co. v. FERC*, 10 F.3d 866, 870 (D.C. Cir. 1993) (upholding FERC's approval of market-based price for natural gas, and finding that "when there is a competitive market, the FERC may rely upon market-based prices in lieu of cost-of-service regulation to assure a 'just and reasonable' result"); Open Video Systems, 61 Fed. Reg. 28698, 28701 (Jun. 5, 1996) (FCC review of rates for video programming services would be presumed "just and reasonable" as long as the programming provider did not exercise a monopoly over channel capacity and its rates were comparable to that of unaffiliated providers).

that the existing framework is perfect. However, absent a crisis or danger to investors, major market structure surgery should be avoided without comprehensive review and analysis. "First, do no harm" should be the guiding principle for any Commission rulemaking. At a minimum, a holistic examination of the entire equities market framework, by all stakeholders (including the exchanges themselves), is necessary to prevent a one-sided and disruptive rulemaking and to benefit investors and the public interest. Cboe notes that the October 2017 Treasury Report on Capital Markets supports a broader review of equity market structure, including the consideration of possible changes to the Order Protection Rule, the Minimum Tick Increment Rule, and SEC Rules 600 and 606.

The Commission's proposal expresses the belief that data from the Pilot would be useful. Cboe believes that is unlikely considering the Pilot's flaws, and is confident that the data being sought would come at a tremendous cost – upending the existing economics and framework around equity executions. The justification for such drastic action needs to be much more compelling than "it would be nice to have data…"

Excludes ATSs. The Commission recognizes that it was, in fact, ATSs that first offered rebates to attract order flow.[26] The Commission is also well-aware that nearly 40% of total equity volume is transacted off exchange on ATSs and other non-exchange venues. Yet, inexplicably, the Pilot focuses only on exchanges and entirely ignores off-exchange venues, which are the venues that are most likely to benefit from a pilot that pointedly decreases the incentive (i.e., rebates) to post protected quotes on-exchange. This renders the proposal incomplete and is also unduly arbitrary and capricious.

In addition, the Commission states that "expanding the proposed Pilot to non-exchange trading centers, such as ATSs, whose fees currently are not subject to Rule 610(c) would have the effect of imposing, in the terms of a pilot, an entirely new regulatory regime on

[26] *See* Release at 13009.

entities whose fees are not currently subject to the substantive and process requirements applicable to exchanges, and that are currently not subject to access fee caps in any respect."[27] First, the Commission's inclusion of inverted exchanges in the proposed Pilot (and bans on rebates) presents the same misapplication of Rule 610(c). Second, any justification for excluding ATSs from the Pilot based on the fact that the proposed Pilot is a "new regulatory regime" for ATSs is concerning. Not only are all rulemakings arguably new regulatory regimes, but, more importantly, this particular Pilot imposes considerable regulatory burdens on exchanges that do not currently exist. The Commission has never before applied fee caps to inverted exchanges, capped exchange access fees at such low thresholds, or banned rebates. The fact that an *access* fee cap currently exists for exchanges or that exchanges must navigate a statutory fee filing process with the Commission does not alter the fact that this Pilot is an entirely new regulatory regime. To exclude ATSs based on the notion that the proposal represents a new regulatory regime while subjecting exchanges to a new regulatory regime is discriminatory and misguided.

Rule 605 and 606 Disclosures. The Commission states that existing studies and available data sources are limited in ways that prevent strong conclusions on the impact of transaction-based fees and rebates on order routing decisions and the existence or magnitude of potential conflicts of interest between broker-dealers and their customers.[28] The Commission identifies Rule 605 and 606 disclosures as available data sources with current limitations. However, the Commission fails to indicate why amending the existing Rule 605/606 disclosure framework to address any perceived limitations is not a less intrusive and more comprehensive and appropriate mechanism for studying the impact of transaction-based fees and rebates on order routing decisions and the existence or magnitude of potential conflicts of interest between broker-dealers and their customers.

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27 *See* Release at 13016.
28 *See* Release at 13044.

This is a critically important point. The Commission has rules in place intending to impose transparency on order routing. Those rules should be refined in order to make them more effective in furtherance of their objective. Any refinement would be consistent with the objective of the original disclosure rules. Amending an *access* fee rule as proposed does nothing to further the objective of the access fee cap, and the disruption to the equities market could be regretted. It is telling that the Pilot proposal no longer calls these fees "access" fees. Understanding that the rationale for this Pilot has nothing to do with the original fee cap rationale has likely prompted a change in terminology. However, simply naming this Pilot a "transaction fee" pilot instead of an "access fee" pilot is not a sufficient justification for significantly expanding the scope of the existing access fee cap. The rationale for the existing access fee cap was to address predatory outlier pricing.[29] The Commission also concluded that the $0.0030 access fee cap would not impair business models because very few trading centers actually charged fees in excess of $0.0030.[30] While the need for the existing access fee cap remains questionable, it is concerning that the fee caps in the proposed Pilot do absolutely nothing to further the justification of the original cap and, unlike the original access fee cap, are set at levels that completely undercut existing rates. The price control Pilot merely compresses the amount an exchange can charge for an execution at the expense of free market ideology and bans a form of remuneration that has benefitted investors for years.

EMSAC Recommendations are the Basis of the Pilot. In 2016, on the heels of an attention-grabbing book about high-frequency trading, the Commission created the Equity Market Structure Advisory Committee ("EMSAC"). The composition of the EMSAC drew considerable criticism.[31] With little exchange or issuer representation and hefty representation from trading firm market participants that would benefit from lower exchange costs, EMSAC

[29] *See* Securities Exchange Act Release 51808 (June 9, 2005), 70 FR 37496, 37545 (June 29, 2005).
[30] *Id*.
[31] *See e.g.*, Letter from Elizabeth King, NYSE, to Brent J. Fields, Secretary, Commission (May 13, 2016), *available at* https://www.sec.gov/comments/265-29/26529-66.pdf.

predictably developed recommendations that had little to do with high frequency trading strategies and instead focused on exchange fees and governance. This included a recommendation to adopt an access fee pilot.[32] Although the SEC's proposed Pilot deviates from the EMSAC recommendations in a few notable areas, the core of the Commission's Pilot experiment has the effect of constraining and suppressing exchange transaction fees to the benefit of brokers and intermediaries without consideration of the impact to everyday investors. Moreover, the proposal spends several pages addressing the probable Pilot costs associated with utilizing an XML format, but only dedicates a paragraph or two to the potential increased costs to investors.

The Pilot is based on recommendations made by a committee that, however well-meaning, was flawed in its construction, and thus, predictably targeted exchange access fees without sufficiently considering alternatives.

Bans Rebates. The ban on rebates ignores the benefits that accrue to investors as a result of the rebate-driven fee structure. The Division has stated that "the payment of transaction-based rebates is a primary tool that the exchanges use to compete with off-exchange venues."[33] It follows that limiting the ability of exchanges to offer rebates could significantly reduce the ability of exchanges to compete with off-exchange venues.

Moreover, there are many forms of remuneration in the market – the proposal only targets exchange provided rebates. In a 2016 Division memo to the EMSAC, the Division describes and defines payment for order flow and notes that "these economic incentives create potential conflicts with a broker's duty of best execution".[34] In that memo, the Division

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[32] *See* Recommendation for an Access Fee Pilot (July 8, 2016), *available at* https://www.sec.gov/spotlight/emsac/recommendation-access-fee-pilot.pdf ("EMSAC Pilot Recommendation").

[33] Maker-Taker Fees Memorandum at 13.

[34] Memorandum on Certain Issues Affecting Customers in the Current Equity Market Structure from the Commission's Division of Trading and Markets to the Market Structure Advisory Committee (January 26, 2016), available at https://www.sec.gov/spotlight/equity.../issues-affecting-customers-emsac-012616.pdf.

acknowledges that payment for order flow "encompasses a wide variety of cash or in-kind compensation structures that a broker may receive for directing its customers' orders to a particular broker-dealer or trading venue." Unfortunately, the proposal only bans transparent, exchange-provided transaction rebates, which actually supply tangible pricing benefits to investors. All other forms of remuneration, often opaque and undisclosed publicly, are seemingly acceptable or left to be addressed another day.

Inadequate Justification for Test Group Thresholds. The Pilot would totally ban exchange rebates for 1,000 stocks. Presumably, this is to validate whether rebates present a conflict of interest and whether routing behavior would change (for the better?) in their absence. While the proposal spends insufficient time on the rationale for the Pilot, including what "better" routing behavior might result and how investors would benefit, it does nothing to justify how the $0.0015 and $0.0005 fee caps levels are appropriate. A significant portion of Regulation NMS was spent on explaining why a $0.0030 access fee cap level was necessary in order to avoid predatory outlier pricing by exchanges. Lowering that same cap without meaningful discussion or justification is concerning and inappropriate.

Constrains Competition and Innovation. Capping exchange access fees and banning rebates constrains the ability of exchanges to compete and innovate. The exchanges currently compete on fees by offering a range of access fees and rebates within the confines of the current $0.0030 access fee cap. Thus, when factoring in rebates, the exchanges generally have flexibility to compete on fees within a given range. By lowering the fee caps in Test Groups 1 and 2 and banning rebates in Test Group 3, the proposed Pilot will reduce the exchanges' ability to compete on fees by 50% in Test Group 1, 83% in Test Group 2, and 50% in Test Group 3. Furthermore, the no-rebate constraint imposed by Test Group 3 would completely distort maker-taker and inverted market pricing models, which are employed by many exchanges today and enjoyed by investors. It is entirely possible that the new framework will cause exchange holding companies to activate existing medallions or seek more medallions in order

to implement new transaction fee constructs and generate non-transaction fee revenue to offset losses caused by the Pilot.

The Division has stated that "the payment of transaction-based rebates is a primary tool that exchanges use to compete with off-exchange venues."[35] However, this price control Pilot will significantly reduce the ability of exchanges to compete. It follows that the proposed Pilot could significantly reduce the ability of exchanges to compete to the detriment of investors and the public interest.

Includes Exchange-Traded Products ("ETPs"). Unlike stocks, ETPs, such as exchange-traded funds ("ETFs"), are generally designed to provide exposure to a particular part of the equity, fixed income, or commodity markets. For example, there are numerous ETFs seeking to track the S&P 500 Index and dozens that seek to provide exposure to the broader U.S. equities market. The issuers of such products compete with one another on numerous fronts, including cost to investors. Including ETPs in the Proposal will give certain of those ETPs an arbitrarily applied competitive advantage. For example, even if spreads were to remain the same, an ETF with an access fee of $0.0005 in Test Group 1 will have a lower cost to buy and sell and, thus, a competitive advantage over an ETF with an access fee of $0.0030 and no rebate in Test Group 3. As such, the Pilot may arbitrarily determine winners and losers for competing ETPs in bringing in new investors. Many ETP issuers are understandably strongly opposed to the inclusion of ETPs in the Pilot.[36]

Similarly, such disparate pricing will negatively impact both new investors and existing holders of ETPs. The exchanges have implemented numerous incentive structures designed to promote liquidity and narrow spreads in ETPs, thus reducing the cost of buying or selling an

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[35] Maker-Taker Fees Memorandum at 13.

[36] *See* John McCrank, *U.S. ETF Providers Cry Foul Over SEC's Fee Experiment*, REUTERS.COM, May 15, 2018, https://www.reuters.com/article/us-usa-regulation-etf/u-s-etf-providers-cry-foul-over-secs-fee-experiment-idUSKCN1IG2OS (last visited May 22, 2018).

ETP, to the benefit of ETP investors. Including ETPs in this Pilot will disrupt that compensation framework and negatively impact liquidity and spreads in ETPs to the detriment of both new and existing investors. The SEC has not sufficiently explained why it is appropriate to include ETPs in any Pilot.

Includes Inverted Markets. SEC Rule 610(c), which caps fees for *removing* a *protected quotation*, is inapplicable to inverted exchanges because inverted exchanges assess a fee for providing a protected quotation. Rule 610(c) is similarly inapplicable to ATSs because ATSs do not have "protected quotations". As the Commission notes, the EMSAC recommended that inverted exchanges and ATSs be excluded from an access fee pilot in order to remain consistent with the current market structure of SEC Rule 610(c).[37] In agreement with the EMSAC, the Commission excluded ATSs from the proposed Pilot and used the inapplicability of Rule 610(c) to ATSs as a basis for doing so.[38] However, the Proposal ignores that Rule 610(c) is similarly inapplicable to inverted exchanges. Excluding ATSs from the Pilot while including inverted exchanges is an incongruent application of reasoning that further demonstrates a lack of rigorous analysis in this rulemaking.

Includes Less Actively Traded Stocks. The Commission recognizes that the price control Pilot "could lead to a temporary reduction of liquidity that could be particularly severe for small or mid-capitalization securities."[39] The Commission also recognizes that "if the effects of the proposed Pilot are severe enough, longer term, it could affect capital formation for these securities. If the temporary impacts on liquidity acutely impact some firms, it could lead to either the potential exit of these issuers from the capital markets, through acquisition or

37 *See* Release at 13015.
38 See e.g., Release at 13016 (stating that "expanding the proposed Pilot to non-exchange trading centers, such as ATSs, whose fees currently are not subject to Rule 610(c) would have the effect of imposing, in the terms of a pilot, an entirely new regulatory regime on entities whose fees are not currently subject to the substantive and process requirements applicable to exchanges, and that are currently not subject to access fee caps in any respect").
39 *See* Release at 13067.

delisting, as these small issuers are those least likely to ride out negative liquidity shocks. Further, the proposed Pilot could lead to a delay by some issuers to enter the capital markets during the proposed Pilot's duration."[40]

The Commission recognizes the challenges facing thinly-traded, small and mid-capitalization stocks and is actively exploring how to improve market quality for these securities (as evidenced by a recent roundtable forum on this very subject) – how could this proposal possibly help with that important effort or be worth the risk to liquidity and capital formation that the Commission itself identifies? Indeed, many industry participants appear to advocate for increased incentives for liquidity provision in thinly-traded stocks. The Pilot would do the opposite. It would completely eliminate an important incentive.

Lack of Mechanism to End the Pilot Early. Cboe is concerned that the Commission's proposal does not identify a single metric or data point that, if met or exceeded, would cause the Commission to end the Pilot prior to the one year sunset period in the best interest of investors. The Commission's proposal similarly fails to identify any metrics or data points that, if met or exceeded, would cause the Commission to allow the Pilot to sunset after one year.

Pilot Data will be Inconclusive. The Pilot data will suffer from the same limitations as current studies and data sources. The Commission justifies the Pilot by stating that existing studies and available data sources are limited in ways that prevent strong conclusions on the impact of transaction-based fees and rebates on order routing decisions and the existence or magnitude of potential conflicts of interest between broker-dealers and their customers.[41] The Commission believes that existing studies are not "representative of the entire market and therefore would provide an incomplete representation of potential conflicts of interest."[42] Excluding from the Pilot non-exchange venues that represent nearly 40% of the equities

[40] *See* Release at 13069.
[41] *See* Release at 13044.
[42] *See* Release at 13045.

market demonstrates that the Pilot data will not be "representative of the entire market" and will assuredly "provide an incomplete representation of potential conflicts of interest." Implementing a Pilot that suffers from the same Commission-identified limitations as currently available data will only yield flawed Pilot data – as will introducing an "exogenous shock" to one form of remuneration without addressing all other forms.

Underestimates Economic Impact on Exchanges. The Commission underestimates the Pilot's potential impact on exchange revenues. The Commission mistakenly believes that Test Group 2, which caps access fees at $0.0005, is "the only test group that could result in reduced revenues for exchanges" because the Commission assumes that Test Group 2 is the only test group that may constrain margins between exchange fees and rebates.[43] However, the Commission fails to estimate potential lost revenues as a result of the Pilot causing lower exchange volumes. The Pilot will reduce incentives to post liquidity on exchanges and the resultant impact on market quality may cause substantial volume to be transitioned to off-exchange venues. A substantial migration of volume to off-exchange venues would result in a net reduction of Cboe's equity transaction revenue.

Underestimates Implementation Costs. The Commission estimates that each primary listing exchange will incur an initial one-time burden of 186 total burden hours to implement the Pilot and 214 total ongoing annual burden hours.[44] The Commission also estimates that non-listing exchanges will incur an initial one-time burden of 166 total burden hours to implement the Pilot and 88 total ongoing annual burden hours. The Commission also estimates that each exchange will incur approximately $117,000 in one-time costs to comply with the Pilot and approximately $215,000 in annual costs during the Pilot period.[45] Primary listing exchanges are estimated to incur an additional $3,720 in one-time costs and $86,300 in

[43] *See* Release at 13063.
[44] *See* Release at 13036-13039.
[45] *See* Release at 13058-13062.

ongoing annual costs. The Commission is underestimating the complexity of the Pilot implementation. The implementation and ongoing costs of the Pilot will be significantly larger in terms of burden hours and expenditures than the Commission estimates. The processing and technical changes across Cboe Exchanges' systems are substantial, requiring considerable coding, unit testing, and systems testing prior to implementation.

The Commission also proposes to provide notice of the start date of the pre-Pilot, Pilot, and post-Pilot Periods one month prior to the start of the pre-Pilot Period.[46] The Commission's one month notice period prior to the start of the pre-Pilot Period is inadequate. Cboe estimates the implementation of the pre-Pilot processing alone will take between three to four months.

Less Intrusive Alternatives Exist to Accomplish the Commission's Stated Objectives

Chairman Clayton has stated that public access to material information can empower investors and transparency can reduce the need for prescriptive restrictions.[47] Cboe agrees. It will be more effective and less damaging to the equities market to strengthen and better articulate the broker-dealers' Duty of Best Execution and provide investors sufficient information about broker-dealer practices around order handling, execution costs, and routing.

In addition, a *potential* conflict of interest (that may actually benefit investors) is not a justifiable reason to perform a large-scale experiment on an equities market that currently offers investors deep liquidity at low cost, especially when less intrusive alternatives exist. If the proposal is rooted in conflict of interest concerns, the Commission should adopt less

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[46] *See* Release at 13033.

[47] Remarks by Chairman Jay Clayton at the Equity Market Structure Symposium (April 10, 2018), *available at* https://www.sec.gov/news/speech/speech-clayton-2018-04-10 (stating that "[r]egulations that promote public access to material information can empower investors and also can energize the competitive forces that benefit investors. In this way, transparency can substantially reduce the need for overly specific and prescriptive restrictions on conduct that can impede competitive forces and, in an evolving, complex system, can become outdated, ineffective and counterproductive.").

damaging alternatives that will allow the Commission to achieve its objectives before implementing a wide-scale experiment that will severely disrupt the equities market. Less intrusive alternatives include the following:

Strengthening and Articulating the Duty of Best Execution. To the extent broker-dealers are unduly influenced by remunerations (a very questionable assumption), such that they are unable to mitigate potential conflicts of interest between themselves and their customers, updating and clarifying the broker-dealers' existing Duty of Best Execution to include explicit guidance on the proper treatment of various forms of remuneration would further mitigate potential conflicts of interest and render the intrusive price control Pilot unnecessary.

In combination with the Commission's examination authority, a strengthened, better articulated Duty of Best Execution will allow the Commission to investigate remuneration practices on a large scale without harming the equities market. Moreover, strengthening best execution standards without implementing a restrictive and over-reaching Pilot aimed only at exchanges will allow exchanges to compete and innovate in ways that will help foster meaningful capital formation and execution quality for investors.

Developing Greater Broker-Dealer Transparency. Requiring greater broker-dealer transparency in the areas of order handling, execution costs, and routing will empower investors and enable the Commission to explore whether incentives are creating an untenable conflict of interest and will render the intrusive price control Pilot unnecessary. Thus, the Commission should adopt a final rule to implement the Commission's proposal to improve the execution quality and routing practices disclosures required under SEC Rules 600, 605, and 606.[48] As proposed, broker-dealers would be required to provide institutional customers with specific disclosures related to the routing and execution of their orders, as well as making publicly available aggregate information about the handling of institutional orders. The

[48] *See* Securities Exchange Act Release 78309 (July 13, 2016), 81 FR 49432 (July 27, 2017) (File No. S7-14-16).

proposed rule changes would also require broker-dealers to provide retail customers additional information about their orders, including the disclosure of the net aggregate amount of any payment for order flow received, payment from any profit-sharing relationship received, transaction fees paid, and transaction rebates received by a broker-dealer from certain venues; and descriptions of any terms of payment for order flow arrangements and profit-sharing relationships. Cboe believes the improved disclosures will better deter potential conflicts of interest and provide investors and the Commission with sufficient information to determine whether order routing practices are consistent with the broker-dealer Duty of Best Execution.[49]

The Proposed Pilot, if Adopted, Should be Modified

Cboe strongly urges the Commission to perform a holistic review of NMS rather than implementing the Pilot. If the Commission adopts the Pilot without first performing a holistic review of Regulation NMS or taking a less intrusive alternative step as articulated above, the Commission should modify the Pilot considerably. Please see Appendix II for some suggested improvements.

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Cboe applauds the Commission's focus on market structure health. Although the equities market is not perfect, the investor experience is better than ever before. Execution costs are down and spreads are narrow—all to the benefit of investors. Implementing a large-scale experiment that could disrupt these quality markets is unjustified and unwarranted.

[49] Cboe agrees with remarks by Commissioner Hester M. Pierce before the SIFMA Equity Market Structure Conference, April 18, 2018, *available at* https://www.sec.gov/news/speech/speech-peirce-041818 (stating instead of focusing on regulatory tweaks to constrain market behavior "[s]houldn't we instead begin exploring alternatives that provide investors with sufficient information and flexibility to determine, in light of their own trading objectives, whether their broker is capable of executing their trades in a manner consistent with best execution, again, in light of the investor's objectives?").

Cboe appreciates the opportunity to comment on the Commission's proposal and welcomes the opportunity to work with the Commission on these important issues.

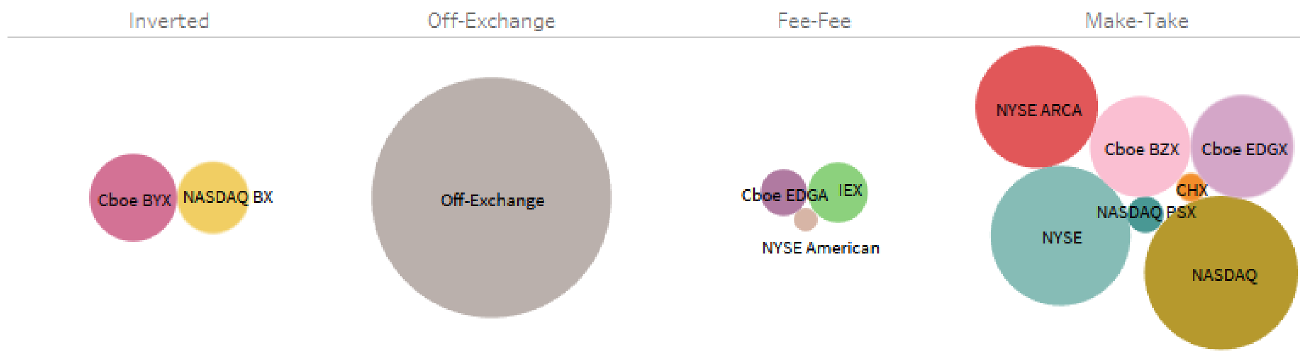
Sincerely,

Edward T. Tilly
Chairman and Chief Executive Officer

Cc: The Honorable Jay Clayton, Chairman
The Honorable Kara M. Stein, Commissioner
The Honorable Michael S. Piwowar, Commissioner
The Honorable Hester M. Peirce, Commissioner
The Honorable Robert J. Jackson, Jr., Commissioner
Brett Redfearn, Director, Division of Trading and Markets
David S. Shillman, Associate Director, Division of Trading and Markets
Richard Holley III, Assistant Director, Division of Trading and Markets

Appendix I

Market share by venue type and fee model.



Source: Cboe internal analysis. Size of the bubble represents the relative market share for each venue in Q1 2018.

Appendix II

Include ATSs and Other Non-exchange Venues. The Pilot is designed to limit the payment of incentives to broker-dealers to send order flow to exchanges while ignoring the nearly 40% of all U.S. equities trading that is executed off-exchange. A Pilot that is truly designed to study the possibility of misaligned incentives for broker-dealers should study the impact of all forms of remuneration and incentives used to attract order flow to ATSs and broker-dealers. Without ATSs and other non-exchange venues, the Pilot data will be incomplete and inconclusive.

In addition, as previously noted, the Division states, and Cboe agrees, that the exchanges serve a central role as the core price discovery mechanism for equities.[50] In the event the Pilot damages the core price discovery mechanism by causing a material percentage of market volume to migrate to off-exchange venues, the Commission should consider whether additional measures are necessary to counteract the Pilot's impact on the critical price discovery mechanism.

Adopt Rule 600, 605, and 606 Amendments and Analyze Data First. As previously noted, the Commission should adopt previously proposed amendments to the broker-dealer disclosure requirements that would give retail and institutional customers critical information related to the routing and execution of their orders. Adopting the proposed disclosure amendments prior to the implementation of the Pilot would render the intrusive Pilot unnecessary, but to the extent the Pilot is still implemented, would also serve as necessary baseline data against which the public may measure whether fee changes have any impact on routing decisions.

[50] *See* Maker-Taker Fees Memorandum at 12.

Adopt Regulation ATS Amendments and Analyze Impact First. If the Commission truly intends to address potential conflicts of interest in the U.S. equites market, the Commission must adopt the amendments to Regulation ATS proposed in 2015. If the Commission neither adopts the amendments to Regulation ATS nor includes ATSs in the proposed Pilot, the Commission and the public will be unable to evaluate potential conflicts of interest present in nearly 40% of the U.S. equities market. This will render the Pilot, and any conclusions based thereon, useless, unreliable, and incomplete.

Reduce the Number of Pilot Securities. The Commission should seek to limit the amount of market disruption the price control Pilot will cause by limiting the number of securities to be included in the Pilot. As noted above, the EMSAC recommended including 100 securities in each test group and stated that the "selection of 100 names per bucket (300 in total) appropriately balances the desire to achieve an adequate sample size and stratification, without over-inclusion within the pilot."[51] The current Tick-Size Pilot contains approximately 400 securities per test group, and there has been no indication that there are too few securities in the Tick-Size Pilot. There is no basis to conclude that 1,000 securities is necessary to obtain statistically significant data. However, there is a strong basis to conclude that 1,000 securities per test group represents an unprecedented market experiment that could have severe, unintended consequences. Thus, in order to limit market disruption the Commission should lower the number of securities in each test group from 1,000 to 100.

Create a Test Group Without Access Fee Caps. As has been discussed, fee caps are a particularly obtrusive form of government price controls. If the Commission deems it appropriate to experiment with the impacts that can be caused by caps, it should also allow for a control group of stocks that are not subject to any caps. This might help substantiate whether caps are actually necessary (as was assumed by the SEC when Regulation NMS was

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[51] *See* EMSAC Pilot Recommendation at 4.

adopted) or whether free market competition is sufficient to constrain pricing. An equally sized tier should contain stocks subject to no caps or rebate bans.

Exclude Exchange-Traded Products. As previously noted, including ETPs in the Pilot will give certain ETPs an arbitrarily applied competitive advantage. Additionally, including ETPs in this Pilot will disrupt the compensation framework designed to promote liquidity and narrow spreads in ETPs. For these reasons, the Commission should exclude ETPs from the Pilot experiment.

Exclude Inverted Markets. The Pilot should exclude inverted markets. As previously noted, SEC Rule 610(c) is inapplicable to inverted exchanges because inverted exchanges provide rebates for accessing protected quotations as opposed to assessing fees for removing protected quotations. Expanding the current fee cap to inverted markets lacks rationale and will not serve the Commission's objectives; as such, inverted markets should be excluded from the Pilot.

Exclude Less Actively Traded Stocks. Consistent with the Treasury Report, the Pilot should exclude less active stocks as the liquidity in such stocks will likely be severely and negatively impacted by this Pilot. Less active stocks are highly dependent on professional liquidity providers to post liquidity. Decreasing incentives for liquidity providers to post liquidity in less active stocks will have a pronounced impact on liquidity and will most likely manifest in significantly wider spreads and significantly less depth in these securities. Thus, to avoid significant, negative impacts on securities that already have recognized liquidity challenges, the Commission should exclude such securities from the Pilot experiment.

Include a Mechanism to End the Pilot Early. The Commission should adopt pre-Pilot benchmark metrics to track the impact of the Pilot and adopt a mechanism that will allow the Commission to end the Pilot prior to the one year sunset period in order to protect investors and the public interest. As previously noted, the Exchange recognizes that "[i]f 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[.]"[52] Thus, in order to protect investors and the public interest the Commission should adopt a provision that will immediately remove a security from the Pilot if total off-exchange volume for a particular security exceeds certain percentage thresholds, which should be tiered in order to take into account particular attributes of each security.

In addition to tracking any shifts from exchange to off-exchange venues, the Commission should also identify specific metrics that will be used to further evaluate the Pilot, such as the quoted, effective spreads, and realized spreads; displayed and hidden liquidity at various depths; volatility; trading volume; routing behaviors; and price improvement; locked and crossed markets; pricing changes; and order type changes. However, it is critically important that the above metrics apply to exchanges and off-exchange venues.

Allow Issuers to Opt-Out. The Commission should also adopt a mechanism for issuers to opt-out of the Pilot. As an issuer, Cboe would opt-out of the Pilot to avoid disruptions in the trading of Cboe stock and capital formation generally.

Prevent Overlap with the Tick-Size Pilot and Allow for Sufficient Time to Analyze Tick-Size Pilot Data and for Markets to Normalize. The proposed Pilot should not overlap with the current Tick-Size Pilot. In addition to avoiding any overlap between pilots, the Commission should allow sufficient time between the end of the Tick-Size Pilot and the proposed Pilot to allow the Commission and market participants to analyze Tick-Size Pilot data. The Tick-Size Pilot data will provide information on changes to order routing behavior that may impact the design of this proposed Pilot. For example, Cboe's preliminary observation of the Tick-Size Pilot data suggests that wider spreads caused liquidity removers to seek price improving dark

[52] Maker-Taker Fees Memorandum at 12.

liquidity rather than trading with displayed bids and offers. The majority of those price improvement seeking orders went to off-exchange venues. Given that the price control Pilot could also result in wider spreads and migration to off-exchange venues, the Commission should sufficiently study the Tick-Size Pilot data to determine whether the proposed Pilot is the proper mechanism for evaluating potential conflicts of interest. Moreover, given the Tick-Size Pilot's seeming impact on order routing behavior, the Commission should allow sufficient time for markets to normalize prior to implementing any new pilot program.