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August 3, 2017

**By Electronic Mail**

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

Re: *Securities Exchange Act Release No. 80683 (May 16, 2017), 82 FR 23320 (May 22, 2017) (SR-BatsBZX-2017-34)*

Dear Mr. Fields,

ViableMkts appreciates the opportunity to respond to comments submitted on the above-referenced proposed rule change in which the Bats Exchange proposes to adopt Bats Market Close, a closing match process for non-BZX Listed Securities under new Exchange Rule 11.28 (“BMC”).

ViableMkts is a capital markets and financial technology consultancy, with broad expertise in market structure innovation. As the Head of Equities for ViableMkts, I have been directly involved in the design and construction of trading and analytical systems for the equity market for over 3 decades, primarily for market makers and most recently as head of quantitative equity products for IHS Markit. I believe that my experience in dealing with U.S. equity market structure over the past couple of decades for different industry participants provides a unique perspective in understanding the competitive landscape and the needs of a broad range of market participants.

**Recommendation:**

ViableMkts believes that the SEC should approve the BMC as a pro-competition, cost-saving tool for the industry. We think that the BMC should be viewed as it was intended; as a complementary process to the closing auction as opposed to a direct competitor. This is because it only accepts unpriced orders and pairs off matching orders in precisely the same manner that large market makers and broker dealers do today. We believe that, in addition to helping the industry control costs, the BMC can improve aggregate liquidity at the primary market closing price and improve the overall resiliency of the market.

**Rationale for the Recommendations:**

*The BMC is a pro-competition, cost-saving tool for the industry.*

The BMC is an innovative proposal to reduce costs to investors at the most expensive, and fastest growing price-point of the trading day, the primary market close. The continued growth of passive investment strategies has made the closing price into the fastest growing price-point of the day, but the exchanges monopoly over their own closing auction process has made it the most

expensive. Nasdaq and NYSE have tiered cost structures<sup>1 2</sup> for market on close orders executed ranging from 7 mils to 16 mils which means that the average “capture” (defined as the cost to the buyer plus the cost to the seller) is likely over 20 mils per share. This compares to an average capture that ranges from a negative number to 10 mils on Nasdaq, and an average capture that ranges from a negative number to 16 mils for NYSE. Considering that the largest firms have a significant market share and they receive the highest rebates and pay the lowest fees, a reasonable estimate of the average capture for both large exchanges is 4-5 mils. This might be off in either direction by a little, but it is important to point out that “market on close” orders, are likely FOUR to FIVE times more profitable in the aggregate.

If one assumes that the BMC is priced at a rate of 2 mils to each executed order, and the “on close” volume on NYSE and NASDAQ listed stocks stays around the current levels of over 400 million shares, that would equate to over \$40 million of annual savings if Bats captures 50% of the close flow. This is calculated by multiplying the difference of roughly 8 mils per side, times one half of the current market on close volume, times 250 trading days in the year.

Their proposal to offer a substantial discount to matched trades in the closing auction should be welcomed.

*The BMC can improve aggregate liquidity at the primary market closing price.*

First, by lowering the aggregate cost of trading, this proposal will likely spur incremental trading volumes. In the past twenty years, we have witnessed numerous examples where trading costs have been reduced, with the result that traded volumes increase<sup>3</sup>. As a result, it is likely that this innovation will attract more liquidity into the aggregate market at and around the closing price.

Second, and more significantly, the BMC proposal has the potential to attract an entirely new source of liquidity. Patient investors with a desire to trade large percentages of the traded volume of stocks, are always searching for venues to utilize where they can trade size without leaking information. These investors do not need to complete their orders by the end of the trading day, and due to information leakage concerns may not use the closing auction extensively. If such investors put MOC or LOC orders into the closing auction, the entire world would know about their trading interest, since all the exchanges publish imbalance messages where such information is disseminated. If, however, the same investor entered their entire trading interest into the BMC, no one would have any knowledge of that interest, except for actual traded volume. Since, in that case, the volume is paired off or cancelled back to the participant, there is no way for the market to know about the large order. This feature has the potential to lower the volatility of the close as this incremental liquidity offsets potential imbalances, thereby improving overall confidence in the process. It could also spur more trading in total as it provides another mechanism for different types of market participants to have their trading interests interact on an exchange.

*The BMC can improve the overall resiliency of the market.*

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<sup>1</sup> <https://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2> (see “Execution Fees for the NASDAQ Closing Cross”)

<sup>2</sup> [https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSE\\_Price\\_List.pdf](https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSE_Price_List.pdf) (see “Equity per Share Charge-per transaction (charged to both sides) – for all MOC and LOC orders”)

<sup>3</sup> <http://data.worldbank.org/indicator/CM.MKT.TRAD.CD?locations=US> Data from the World Bank shows total share value traded rose steeply after the order handling rules were implemented introducing competing markets with lower costs as one example.

Another benefit to this plan is increased system wide resiliency, due to the ability for Bats to provide a reliable backup to the incumbent primary market closing auctions. Those auctions are a notable “single point of failure” in the current market structure, and Bats would provide both system and geographical redundancy. While it would take technology work for Bats to do so, once they are able to handle MOC orders on NYSE and NASDAQ listed stocks, that would make it much easier for them to offer a full closing auction process as a backup. One large complexity in establishing a backup closing auction is that the sending systems (OMSs, EMSs, and connectivity providers) have edits or hard coded routing that limit “on close” orders to be sent to the primary listing exchange for that stock. This proposal would require the elimination of that restriction and would likely guarantee that participants would be using Bats every day for some of their “on close” orders. If most participant’s systems were modified to take advantage of this functionality, it would, therefore, be a major step towards more system-wide redundancy. Unlike the proposal for the NYSE and Nasdaq to back up each other, the broker community would have both a profit motive to do the work and incentives to ensure that the routing works daily.

### **Answers to Notable Criticisms from other Comment Letters:**

Between the NYSE<sup>4</sup>, Nasdaq<sup>5</sup>, GTS<sup>6</sup>, T. Rowe Price<sup>7</sup>, and issuer letters, there were four main objections raised:

1. Impaired Price Discovery
2. Increased Fragmentation of Order Flow
3. Increased Potential for Manipulation
4. Destructive Competition, Potentially Undermining Confidence in the Closing Auction

I will answer each of these objections in turn.

#### *Impaired Price Discovery*

This objection is false. As described, the BMC will only accept market on close orders and not accept any limit orders. The cut-off time for accepting these orders is designed to provide more than enough time for all unexecuted order quantity, to be routed to the primary exchange, where they will continue to become part of the price discovery process. This means there should be zero impact on price discovery.

Price discovery is accomplished by the auction process on both main exchanges. Nasdaq seems to have architected their process to choose the price that maximizes the amount traded, while NYSE, via their DMMs, chooses a price to fulfill their guarantee that all market on close orders will be completely executed. Both auctions match marginal excess demand with offsetting limit orders either from Limit on Close, resident orders in the order book, or imbalance only orders submitted in response to published imbalances.

To illustrate why the BMC will not impact price discovery, consider the following scenarios:

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<sup>4</sup> <https://www.sec.gov/comments/sr-batsbzx-2017-34/batsbzx201734-1801145-153699.pdf>

<sup>5</sup> <https://www.sec.gov/comments/sr-batsbzx-2017-34/batsbzx201734-1797187-153614.pdf>

<sup>6</sup> <https://www.sec.gov/comments/sr-batsbzx-2017-34/batsbzx201734-1822741-154313.pdf>

<sup>7</sup> <https://www.sec.gov/comments/sr-batsbzx-2017-34/batsbzx201734-1840043-154951.pdf>

1. The primary exchange received 10 million shares of market on close orders that were fully matched (5 million shares of buy orders with 5 million shares of sell orders) and 500,000 shares of excess market on close demand to buy along with limit on close, imbalance only and regular limit orders including d-quotes.

OR

2. The primary exchange received ZERO shares of fully matched market on close orders (Bats matched 10 million shares) and the primary exchange received the same 500,000 shares of excess market on close demand to buy along with limit on close, imbalance only and regular limit orders including d-quotes.

If the limit order book was the same in both cases, the auction will pick the same price, regardless of the difference in the matched quantity. The reason is that the amount of non-priced, market on close shares which pair off, are not involved in the price discovery process. As long as the participants in the Bats matching process are not precluded from entering their MOC orders into the primary auction in time, there will be no negative effect on price discovery.

In the NYSE letter<sup>8</sup>, they assert that it could make a difference to the closing price chosen if the DMM is aware of the composition of certain large orders. Their argument presumably is that it would provide them clues as to future price movements in the stock on subsequent trading days. While this argument may well be true, there are two important rejoinders: First, the SEC should not base policy on the profit motives of an individual type of participant. Second, the BMC is voluntary, meaning that if the large institutional buyer or seller wanted the DMM to know about their order for future use, then they can still direct that order to the closing auction. If the large institution did not want the DMM to know about the size of their order, however, the BMC provides a choice that the investor does not have today.

#### *Increased Fragmentation of Order Flow*

While it is true that the BMC represents a new venue for market on close orders, it is not a major increase in fragmentation. It also could decrease fragmentation as I will explain below. Despite the assertion in the T Rowe Price letter, that “only a small number of brokers currently provide market-on-close-products that match orders internally to avoid paying the exchange fee,” we have personal knowledge that most brokers that engage in market making, program trading, or principal trading of index changes do “pre-match” their MOC client orders to avoid the exchange fees. In addition, the letter’s statement that they “are aware of numerous brokers and alternative trading systems (ATSS) that, in light of the BZX Proposal, are now considering offering such products as well” **supports approval of the BMC!**

This is because, while the SEC certainly has the authority to deny BZX’s proposed function under the Exchange Act<sup>9</sup>, it is highly unlikely that they could deny an ATS ruleset that was materially similar. ATS’s already accept unpriced orders and match them with other unpriced orders based on reference prices derived from exchange data. It is hard to understand how an ATS creating a new order type which matched hidden, unpriced orders at the official closing price could be prohibited. There have been ATS’s matching after the close at that price since the 1980s<sup>10</sup>, and

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<sup>8</sup> <https://www.sec.gov/comments/sr-batsbzx-2017-34/batsbzx201734-1801145-153699.pdf>, see page 4

<sup>9</sup> <https://www.sec.gov/about/laws/sea34.pdf>

<sup>10</sup> <https://www.instinet.com/history.html> Describes Instinet’s first after hours cross at the market-closing price

ATSS have approved rules to match according to a range of benchmark prices. Thus, the commission should consider whether they would prefer this service being offered by a regulated exchange or a less regulated ATS. In our opinion, there are several reasons why the approval of the BMC is the best outcome. First, BZX is a Regulation SCI entity, which operates at the highest standard of reliability while few ATSS reach this threshold. Second, BZX is an SRO, meaning that manipulation surveillance will have better coverage, since Bats will augment FINRA efforts. Third, the BZX BMC can provide a bona fide backup to the primary listing exchange auction with some additional effort. This is only possible by implementation of this auction on an approved stock exchange. Finally, the market share of Bats, coupled with their plan to aggressively price this facility, could deter potential fragmentation by dissuading ATSS from implementing similar facilities and jockeying for position.

### *Increased Potential for Manipulation*

This notion stems from the observation that there will be a new data-point disseminated at the end of the BMC. However, the only data that will be publicly released will be the total matched shares for each security without any indication of which side had unmatched shares. As a result, the only participants who will know which side of the BMC was larger are those who sent bona fide orders that were unexecuted. Even then, those participants would have no notion regarding the magnitude of the imbalance, except for their own orders, which they knew about already. As a result, it is hard to discern how there is incremental risk of manipulation.

In addition, however, we believe that the SEC should compare this proposal to a future world with multiple ATSS attempting to offer similar services. If the commission were to compare the BMC proposal to such a future state, it is pretty clear that the BMC would offer better surveillance opportunities and less risk.

### *Destructive Competition, Potentially Undermining Confidence in the Closing Auction*

It is true that the BMC is designed to provide a price-competitive offering to the closing auctions for un-priced orders. It is not, however, fully competitive with the auctions as it does not accept priced orders or disseminate imbalance information. In fact, it only competes with orders that essentially “free ride” on the price discovery process of the auction. Thus, the competition is not destructive to the mission of the closing auction. In addition, we would argue that, in this case, the most likely effect of the competition will be increased volumes at the closing price for two reasons. First, lower marginal costs tend to increase volumes and second, the BMC, as explained above, can attract a new type of investor to participate at the closing price. Importantly, this likely increase in volume will signal increased confidence in the closing process, which will help the market adjust to increase passive trading volumes.

### **Conclusion:**

The BMC is designed to provide a complementary service to the closing auctions, as it provides fee competition on matched, non-priced orders exclusively. It, in no way, competes with the price discovery process of the auctions themselves, but rather provides cost savings to a class of price-insensitive orders that seek to match the closing price, whatever that turns out to be. It is likely to improve investor confidence in the integrity of the closing price, both by increasing liquidity and by

providing a more realistic back up in the event of severe system outages. As such, the SEC should approve the proposal.

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I would like to thank the Commission for the opportunity to submit these comments. If the Commission has any questions or would like additional information, please do not hesitate to contact me.

Respectfully submitted,



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Head of Equities, ViableMkts  
[REDACTED]

Cc:

The Honorable Jay Clayton, Chairman  
The Honorable Michael S. Piwowar, Commissioner  
The Honorable Kara M. Stein, Commissioner  
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