I. **Introduction**

On June 3, 2020, Cboe Exchange, Inc. (“Exchange” or “Cboe”) filed with the Securities and Exchange Commission (“Commission”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)\(^1\) and Rule 19b-4 thereunder,\(^2\) a proposed rule change to amend Rules 5.37, 5.38, and 5.73 to (1) allow the Exchange to determine to disseminate the stop price in auction notification messages for Automated Improvement Mechanism (“AIM”), Complex Automated Improvement Mechanism (“C-AIM”), and FLEX AIM auctions in S&P 500® Index options (“SPX”); and (2) modify the minimum increment for C-AIM and FLEX AIM auction responses for Index Combo Orders in SPX. The proposed rule change was published for comment in the **Federal Register** on June 18, 2020.\(^3\) On July 22, 2020, the Exchange submitted Amendment No. 1 to the proposed rule change, which replaced and superseded the proposed rule

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change in its entirety. On July 27, 2020, pursuant to Section 19(b)(2) of the Act, the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to disapprove the proposed rule change. On August 21, 2020, the Commission published notice of Amendment No. 1 and instituted proceedings under Section 19(b)(2)(B) of the Act to determine whether to approve or disapprove the proposed rule change, as modified by Amendment No. 1. On December 8, 2020, pursuant to Section 19(b)(2) of the Act, the Commission designated a longer period within which to approve or disapprove the proposed rule change, as modified by Amendment No. 1. This order approves the proposed rule change, as modified by Amendment No. 1.

II. Description of the Proposal, as Modified by Amendment No. 1

A. Background


In Amendment No. 1, the Exchange amended the proposal to: (1) to add that, when the proposed stop price dissemination in auction notification messages is enabled for AIM, C-AIM, or FLEX AIM auctions in SPX, it would apply to all such AIM, C-AIM, or FLEX AIM auctions; (2) specify that the proposed minimum increment modification would apply to Index Combo Orders in SPX, and to correct an internal cross-reference in the proposed rules; (3) provide additional detail to the description and examples of the proposed modification to the minimum increment for Index Combo Orders in SPX; and (4) provide additional justification and support for the proposed rule change. The full text of Amendment No. 1 is available on the Commission’s website at: [https://www.sec.gov/comments/sr-cboe-2020-052/srcboe2020052-7464403-221166.pdf](https://www.sec.gov/comments/sr-cboe-2020-052/srcboe2020052-7464403-221166.pdf).


See Securities Exchange Act Release No. 89400, 85 FR 46202 (July 31, 2020). The Commission designated September 16, 2020 as the date by which the Commission shall approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change.


See Securities Exchange Act Release No. 90592, 85 FR 80863 (December 14, 2020). The Commission designated February 13, 2021 as the date by which the Commission shall approve or disapprove the proposed rule change, as modified by Amendment No. 1.
The AIM, C-AIM, and FLEX AIM are electronic auctions intended to provide an agency order with the opportunity to receive price improvement (over the National Best Bid or Offer in AIM, or the synthetic best bid or offer on the Exchange in C-AIM).\textsuperscript{11} Upon submitting an agency order into one of these auctions, the initiating Trading Permit Holder must also submit a contra-side second order for the same size as the agency order. The contra-side order guarantees that the agency order will receive an execution. Upon commencement of an auction, market participants submit responses to trade against the agency order. At the conclusion of the auction, depending on the contra-side interest available, the contra-side order may be allocated a certain percentage of the agency order.\textsuperscript{12}

On March 16, Cboe activated the AIM and C-AIM in SPX options, so that trading in SPX could continue while the trading floor was closed.\textsuperscript{13} Once the trading floor re-opened on June 15, 2020, the Exchange disengaged AIM and C-AIM for SPX. Prior to the trading floor closure, the Exchange had not activated C-AIM (or AIM) in SPX and thus all non-FLEX crossing transactions in SPX were previously only able to occur on the trading floor.

B. Minimum Increment for Index Combo Orders in SPX

The Exchange proposes to amend Rules 5.38 and 5.73 to modify the minimum increment for C-AIM and FLEX AIM auction responses, respectively, in which the agency order complex strategy is comprised of an Index Combo Order (as defined in Rule 5.33(b)) in SPX.\textsuperscript{14} When

\begin{itemize}
\item \textsuperscript{11} See Rules 5.38 (AIM), 5.38 (C-AIM), and 5.73 (FLEX AIM).
\item \textsuperscript{12} See Rules 5.37(e), 5.38(e), and 5.73(e).
\item \textsuperscript{13} The Exchange had activated C-AIM and AIM in SPX for the first time as a result of the March 16, 2020 trading floor suspension to help prevent the spread of COVID-19. According to the Exchange, FLEX AIM in SPX had been activated prior to March 16, 2020.
\item \textsuperscript{14} An Index Combo Order is an order to purchase or sell one or more index option series and the offsetting number of Index Combinations defined by the delta. For purposes of an Index Combo order, the following terms have the following meanings: (1) An “Index Combination” is a purchase (sale) of an index option call and sale (purchase) of an index option put with the same underlying index, expiration date, and strike price; (2) A “delta” is the positive (negative) number of Index Combinations that must be sold (purchased) to
submitting an agency order into a C-AIM auction, the initiating member must also submit principal or solicited contra-side complex order(s) for the same size as the agency order, which guarantees that the agency order will receive an execution. Upon commencement of a C-AIM auction, market participants submit responses to trade against the agency order and at the conclusion of an auction, depending on the contra-side interest available, the contra order may be allocated a certain percentage of the agency order.

Rules 5.38(c)(5)(A) and 5.38(a)(4) currently provide that the minimum price increment for C-AIM responses and agency and initiating orders, respectively, must be in an increment the Exchange determines on a class basis, which is $0.05 in SPX options. The corresponding FLEX AIM Rules 5.73(c)(5)(A) and 5.73(a)(4) provide the same treatment for FLEX AIM auctions. Thus, under current rules market participant responses in the C-AIM and FLEX AIM auctions must improve the net package price (i.e., each strategy unit) based on then-current leg markets by at least the minimum increment of $0.05. Because of the differences between the quoting practices on floor and the quoting practices in the C-AIM and FLEX AIM auctions with respect to Index Combo Orders in SPX, however, applying the $0.05 minimum increment to establish a market neutral hedge with one or more series of the same index option; and (3) An Index Combo order may not have a ratio greater than eight options to one Index Combination (8.00), and will be subject to all provisions applicable to complex orders (excluding the one-to-three/three-to-one ratio) in the Rules. See Rule 5.33(b).

See Rule 5.38.

See generally Rule 5.38(e). The same process applies to the FLEX AIM auction pursuant to the FLEX Rules. See generally Rule 5.73(e).

The System rejects a C-AIM response or agency or initiating order that is not in the applicable minimum increment.

Although members of the trading crowd on the trading floor are permitted to improve the net package price (based on then-current leg markets) by the minimum increment of $0.05, the Exchange states that this is not the common practice. See Amendment No. 1, supra note 4, at 9.

An Index Combo Order in SPX is a complex order that includes one or more SPX legs, hedged by an SPX combo, or synthetic future, defined by the delta. The Exchange states that Index Combo Orders in SPX comprise a significant portion of crosses in SPX and that a significant amount of SPX volume was executed through C-AIM when the Exchange activated C-AIM for SPX options. See id. at 7 and n.10 (stating that in April
auction responses in both floor trading and the electronic C-AIM and FLEX AIM auctions could result in a significant difference in the price improvement that an order receives depending on whether the Index Combo Order in SPX is traded in the electronic auctions or on the trading floor. A floor broker seeking to cross SPX complex orders on the trading floor generally identifies the legs of the complex order and their relative sizes to each other with a net package price. The trading crowd then generally provides a market based on the strategy’s theoretical value, rather than on the value of the net package (which equals the strategy times the ratio), particularly when the complex order represented is a delta neutral order that includes a combo. In open outcry trading, the trading crowd generally prices the combo hedge portion separately from the non-combo portion of the order. If the crowd improves the price of the non-combo leg of the order by a minimum increment, or greater, that price is given on each contract. The proposed changes are intended to provide for substantially the same price improvement opportunities at meaningful increments for Index Combo Orders in SPX, whether they are submitted to the C-AIM or FLEX AIM electronic auctions or executed on the trading floor.

Accordingly, to better align the C-AIM and FLEX AIM electronic auction crossing processes and the open outcry crossing process for Index Combo Orders in SPX, the Exchange proposes to amend Rule 5.38(c)(5)(A) to provide that the minimum price increment for a C-AIM response in which the agency order complex strategy is comprised of an Index Combo Order in SPX will be the ratio of the non-combo portion of the strategy to the number of combos.

2020, Index Combo Orders in SPX comprised 60.5% of crossed volume executed in SPX via AIM while the trading floor was inoperable).

See id. at 9-11, for examples of these pricing distinctions in practice.

See id. at 7.

See id.

The price of the combo and the rest of the order are ultimately packaged and appear as a net package price for the entire order on the customer fill report. See id. at 8.

See id.

See id. at 13.
multiplied by the minimum price increment the Exchange determines for options on SPX agency orders pursuant to Rule 5.38(a)(4).26 The Exchange also proposes to amend Rule 5.73(c)(5)(A) to revise the FLEX AIM process for Index Combo Orders in SPX in the same manner.27

C. Auction Stop Price Dissemination in SPX

Current Rules 5.37(c)(2), 5.38(c)(2), and 5.73(c)(2) provide that the system initiates the AIM, C-AIM, and FLEX AIM auction processes, respectively, by sending an auction notification message detailing the side, size, auction ID, and options series (and, for C-AIM auctions, complex strategy, or, for FLEX AIM auctions, length of the auction period and options series or complex strategy, as applicable) of the agency order to all users that elect to receive AIM, C-AIM, or FLEX AIM auction notification messages. Because AIM, C-AIM, and FLEX AIM auction notification messages are not included in the disseminated BBO (in connection with AIM auctions) or OPRA, the Exchange does not currently include the stop price of an agency order in auction notification messages.28 To better align the AIM and C-AIM pricing process in SPX with the open outcry process, the Exchange proposes to amend Rules 5.37(c)(2) and 5.38(c)(2) to provide that the Exchange may also determine to include the stop price in SPX AIM and C-AIM auction notification messages.29 As with all other information disseminated in an AIM and C-AIM auction notification message, the disseminated stop price for SPX auctions

26 For example, if a market participant buys 800 November 3650 SPX Calls tied to 100 September 3210 Combos, using a delta of 12.5, the System would calculate the minimum increment by multiplying the ratio of the non-combo leg of the order (800) to the number of combos (100) by the minimum increment of $0.05. Therefore, (800/100) x 0.05 = $0.40 as the starting point for price improvement during the C-AIM or FLEX C-AIM auction. See id.

27 See id. at 12-13.

28 See id. at 11.

29 The Exchange represents that it will notify its trading permit holders of a determination to include the stop price in auction notification messages, pursuant to Rule 1.5, via a specification, notice, or regulatory circular with appropriate advanced notice, which will be posted on the Exchange’s website, electronic message, or other communication method as provided in the Rules. See id. at 12 n.18.
will be available to all users that elect to receive auction notification messages. Because the FLEX AIM rules are similar to the AIM and C-AIM rules, the Exchange also proposes to maintain this consistency by amending Rule 5.73(c)(2) to similarly provide that the Exchange may determine to include the stop price in FLEX AIM auction notification messages for all FLEX AIM auctions in SPX.

III. Discussion and Commission Findings

The Commission finds that the proposed rule change, as modified by Amendment No. 1, is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange. In particular, the Commission finds that the proposed rule change, as modified by Amendment No. 1, is consistent with Section 6(b)(5) of the Act, which requires, among other things, that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, 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. The Commission also finds that the proposed rule change, as modified by Amendment No. 1, is consistent with Section 6(b)(8) of the Act, which requires that the rules of a national securities exchange do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

As discussed above, the Exchange proposes to publish the stop price of SPX AIM auctions. As previously noted, according to the Exchange, orders in SPX generally take on greater risk, have a higher notional value, trade in much larger size, and effect increasingly more

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30 See proposed Rules 5.37(c)(2) and 5.38(c)(2).
31 See Amendment No. 1, supra note 4, at 12-13.
32 In approving this proposed rule change, the Commission has considered the proposed rule’s impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).
complex strategies than options in other classes.\textsuperscript{35} Therefore, the Exchange believes that this proposed change may address any uncertainties market participants may have when pricing SPX responses.\textsuperscript{36} The Exchange further states that, for SPX orders crossed on the trading floor in open outcry, market makers generally have more confidence in the pricing of their responses as the crosses start with a request for market and the trading crowd then provides a “ballpark” of the prices at which they are willing to trade, which the market maker may then use to more confidently price its responses.\textsuperscript{37} The Exchange believes that its proposal, therefore, has been designed to incentivize continued, competitive responses to SPX electronic auctions in substantially the same manner in which responses may be priced on the trading floor, thereby providing for potentially improved liquidity and price improvement opportunities for orders being executed through those auctions, as the dissemination of the stop price may facilitate market participants’ confidence in pricing meaningful, competitive responses during electronic auctions in SPX in a manner substantially similar to that which occurs on the trading floor.\textsuperscript{38}

The Exchange also proposes to revise the minimum increment for auction responses for Index Combo Orders in SPX that trade in electronic auctions. For these orders, the Exchange proposes to base the minimum auction response increment on the ratio of the non-combo portion of the strategy to the number of combos, multiplied by the minimum price increment the Exchange determines for options on SPX agency orders pursuant to Rule 5.38(a)(4). The Exchange believes that without the proposed change, responders to C-AIM and FLEX AIM auctions of Index Combo Orders in SPX could “step ahead” of market participants who are

\textsuperscript{35} See Amendment No. 1, supra note 4, at 16.

\textsuperscript{36} See id.

\textsuperscript{37} See id. at 6.

\textsuperscript{38} See id. at 16. The Exchange also states that its affiliated options exchange, Cboe EDGX Exchange, Inc. (“EDGX Options”) currently includes the price, along with the other fields the Exchange currently disseminates, in the auction notification messages disseminated at the initiation of its AIM and C-AIM auctions. See EDGX Options Rules 21.19(c)(2) and 21.22(c)(2).
willing to trade with customer orders at the auction price by providing only a trivial amount of price improvement.\textsuperscript{39} The Exchange believes that this could discourage market participants from providing contra-side interest at the best prices and liquidity providers from joining or improving at meaningful increments, resulting in fewer price improvement opportunities for customers.\textsuperscript{40} By tying the minimum auction response increment to the legs of the order, as opposed to the package price inclusive of the combos, the Exchange believes the proposed rule will require market participants to respond to the C-AIM or FLEX AIM auctions for Index Combo Orders in SPX at prices more aligned with the prices at which responses for these orders generally occur in open outcry.\textsuperscript{41} One commenter agreed with Cboe stating that the proposed rule change should provide investors in SPX with enhanced execution and price improvement opportunities for agency orders submitted into the AIM auctions.\textsuperscript{42}

According to the Exchange, orders in SPX generally take on greater risk than in other option classes, as SPX options tend to have a higher notional value than options in other classes, trade much larger size than in other options classes, and effect increasingly more complex strategies than executed in other classes.\textsuperscript{43} The proposed change to the minimum auction response increment for Index Combo Orders in SPX could help to ensure that market participants seeking to trade with an agency order at a price better than the auction price will be required to

\textsuperscript{39} See Amendment No. 1, \textit{supra} note 4, at 15.

\textsuperscript{40} See id. at 13-14 (providing an additional example to illustrate the Exchange’s arguments).

\textsuperscript{41} See id. The Exchange states that the proposal will not alter the manner in which the system caps responses pursuant to Rule 5.38(c)(5)(B). Under Rule 5.38(c)(5)(B), C-AIM buy (sell) responses are capped at the following prices that exist at the conclusion of the C-AIM Auction: (i) the better of the synthetic best offer (“SBO”) (synthetic best bid (“SBB”)) or the offer (bid) of a resting complex order at the top of the complex order book (“COB”); or (ii) one minimum increment lower (higher) than the better of the SBO (SBB) or the offer (bid) of a resting complex order at the top of the COB if the BBO of any component of the complex strategy or the resting complex order, respectively, is a Priority Customer order. See id. at 14-15.


\textsuperscript{43} See Notice, \textit{supra} note 3, at 36923.
provide meaningful price improvement. Because liquidity providers responding to a C-AIM or FLEX AIM auction for an Index Combo Order in SPX will not be able to gain allocation priority over solicited contra side interest by providing only minimal price improvement over the auction price, the proposal could help to ensure that market participants solicited to participate as the contra side to an Index Combo Order in SPX will continue to provide liquidity for these orders. The proposed auction response increment also could help to ensure that an Index Combo Order in SPX that is executed in a C-AIM or FLEX AIM auction receives an amount of price improvement comparable to the amount of price improvement that the order might receive if it traded in open outcry. The proposed change to the minimum auction response increment for Index Combo Orders in SPX is also consistent with Section 6(b)(8) of the Act because it may promote competition on the Exchange by more closely aligning the electronic crossing process with the open outcry crossing process, and thus provide similar execution and price improvement opportunities to customers whether their orders are submitted for electronic or open outcry execution.

The Commission further believes that the Exchange’s proposal to allow for the dissemination of the stop price in auction notification messages for AIM, C-AIM, and FLEX AIM auctions in SPX is consistent with the Act. As described above, providing potential auction responders with more information about an upcoming SPX AIM auction may encourage market participants to submit more competitive responses, particularly given the large and complex nature of orders in SPX. Accordingly, the Commission believes the Exchange’s proposal may result in increased liquidity in AIM auctions and therefore increased price improvement opportunities for SPX agency orders in the AIM auctions.

One commenter supported the proposal, highlighting specifically the stop price dissemination aspect of the proposal and stating that it would better align the AIM and C-AIM pricing processes for responses with the open outcry process. See letter to Vanessa Countryman, Secretary, Commission, from Ellen Greene, Managing Director, Equities & Options Market Structure, The Securities Industry and Financial Markets Association, dated July 9, 2020, at 3.
The Commission is also aware that other options exchanges currently disseminate the stop price of an agency order in similar auction mechanisms and does not believe this aspect of the proposed rule change raises any novel regulatory issues.\textsuperscript{45} The Commission believes that providing similar additional information in its electronic price improvement auction notification messages should make the Cboe electronic price improvement auctions competitive with other options exchanges and encourage the submission of more responses to these auctions. For this reason, the Commission believes that the proposed rule change is also consistent with Section 6(b)(8) of the Act.

Accordingly, the Commission finds that the proposed rule change, as modified by Amendment No. 1, is consistent with the requirements of the Act.

IV. Conclusion

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Act,\textsuperscript{46} that the proposed rule change, as modified by Amendment No. 1 (SR-CBOE-2020-052), be, and hereby is, approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.\textsuperscript{47}

Jill M. Peterson,
Assistant Secretary.

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\textsuperscript{45} See, e.g., BOX Exchange LLC Rule 7150(f); EDGX Options Rules 21.19(c)(2) and 21.22(c)(2); MIAX International Securities Exchange, LLC Rule 515A(a)(2)(i)(B); and Nasdaq ISE, LLC Options 3, Section 13(c).


\textsuperscript{47} 17 CFR 200.30-3(a)(12).