

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-104159; File No. SR-CBOE-2025-074]

Self-Regulatory Organizations; Cboe Exchange, Inc.; Notice of Filing of a Proposed Rule Change to Amend Functionality Relating to the Processing of Auction Responses

September 30, 2025.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on September 30, 2025, Cboe Exchange, Inc. (the “Exchange” or “Cboe Options”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend its functionality relating to the processing of auction responses. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Commission’s website (<https://www.sec.gov/rules/sro.shtml>), the Exchange’s website (https://www.cboe.com/us/options/regulation/rule_filings/), and at the principal office of the Exchange.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange currently offers a variety of auction mechanisms which provide price improvement opportunities for eligible orders. Particularly, the Exchange offers the following auction mechanisms: Complex Order Auction ("COA"),³ Step Up Mechanism ("SUM"),⁴ Automated Improvement Mechanism ("AIM"),⁵ Complex AIM ("C-AIM"),⁶ Solicitation Auction Mechanism ("SAM"),⁷ Complex SAM ("C-SAM"),⁸ FLEX Auction process,⁹ FLEX AIM,¹⁰ and FLEX SAM.¹¹ The Exchange notes that eligible orders ("auctioned orders") are electronically exposed for an Exchange-determined period (collectively referred to herein as "auction response period") in accordance with the applicable Exchange Rule, during which time

³ See Rule 5.33(d).

⁴ See Rule 5.35.

⁵ See Rule 5.37.

⁶ See Rule 5.38.

⁷ See Rule 5.39.

⁸ See Rule 5.40.

⁹ See Rule 5.72(c).

¹⁰ See Rule 5.73.

¹¹ See Rule 5.74.

Users may submit responses (collectively referred to herein as “auction responses” or “auction response messages”) to an auction message.

In June 2023, in order to provide responses to these auctions with increased opportunities to participate in the auction, even during periods of high message traffic, and thus potentially provide customers with additional opportunities for price improvement, the Exchange adopted new functionality that applies across all of its auction mechanisms to increase the likelihood that timely submitted auction responses may participate in the applicable auction, even during periods of high message traffic.¹² Under this functionality, at the time an auction response period ends, the System continues to process its inbound queue for any messages that were received by the System before the end of the auction period (including auction responses) for up to an Exchange-determined period of time, not to exceed 100 milliseconds (which the Exchange may determine on a class-by-class basis which would apply to all auction mechanisms and which would be announced with reasonable advanced notice via Exchange Notice).¹³ That is, any auction responses that were in the queue before the conclusion of the auction (as identified by the Network Interface Card (“NIC”) timestamp on the message) would be processed as long as the Exchange-determined time on a class-by-class basis (not to exceed 100 milliseconds) is not exceeded. Only auction responses received prior to the execution of the applicable auction are eligible to be processed for that auction. The applicable auction will execute once all messages, including auction responses, received before the end time of the auction response period have

¹² See Rule 5.25(c); see also Securities Exchange Act Release No. 97738 (June 15, 2023), 88 FR 40878 (June 22, 2023) (SR-CBOE-2022-051). This functionality applies to COA, SUM, AIM, SAM, C-AIM, C-SAM, FLEX Auction Process, FLEX AIM, and FLEX SAM.

¹³ The auction response processing time is currently set to 900 milliseconds for S&P 500 Index options (“SPX options”) and 100 milliseconds for all other classes. See Cboe Exchange Notices C2025042903, available at <https://www.cboe.com/notices/content/?id=54332>; and C2024111903, available at <https://www.cboe.com/notices/content/?id=51420>.

been processed or the Exchange-determined maximum time limit of up to 100 milliseconds has elapsed, whichever occurs first. This continuation of processing the queue for an additional amount of time for messages that were received before the end of the auction allows for auction responses that would otherwise have been canceled due to the conclusion of the auction response period to still have an opportunity to participate in the auction.

In May 2025, the Exchange increased the permissible maximum length of this Exchange-determined time period for SPX options.¹⁴ Specifically, with respect to SPX options, this Exchange-determined period of time for this continuation of auction response processing plus the length of the auction response or exposure period, as applicable,¹⁵ may not exceed 1000 milliseconds (which the Exchange announces with reasonable advance notice via Exchange Notice).¹⁶ The Exchange increased the additional processing time so that more auction responses could be executed in auctions for SPX auctions, particularly in times of high message traffic. This increase in processing time is currently in place until December 31, 2025 and applies to non-FLEX SPX options only.

The proposed rule change proposes to make expand the recent proposed rule change to all non-FLEX classes,¹⁷ including SPX options, on a permanent basis. Specifically, the Exchange proposes to amend Rule 5.25(c) to provide that the Exchange-determined period of time¹⁸ during which the System will, at the conclusion of an auction response or exposure period, continue to process any messages in its

¹⁴ See Securities Exchange Act Release No. 102966 (May 1, 2025), 90 FR 19330 (May 7, 2025) (SR-CBOE-2025-031); see also Cboe Exchange Notice C2025042903, available at <https://www.cboe.com/notices/content/?id=54332>.

¹⁵ Current lengths of auction response and exposure periods are available at [cboe_options_product_configurations.xlsx](#).

¹⁶ The auction response processing time is currently set to 900 milliseconds (with auction timers set to 100 milliseconds) for S&P 500 Index options (“SPX options”).

¹⁷ As proposed, the auction response processing time will no longer apply to any FLEX auctions.

¹⁸ The Exchange may determine this time period on a class-by-class basis. See Rule 5.25(c).

inbound queue that were received by the System before the end of the auction response or exposure period (as identified by each message's timestamp), plus the length of the auction response or exposure period, as applicable, may not exceed 1000 milliseconds. The Exchange believes the proposed maximum amount of additional time for processing will result in more auction responses being executed in all classes, particularly in times of high message traffic.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the "Act") and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.¹⁹ Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)²⁰ requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, 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. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)²¹ requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the Exchange believes the proposed rule change will remove impediments to a free and open market, as it will allow the Exchange's System to potentially process more, if not all, timely submitted auction responses, particularly in times of volatility and high message

¹⁹ 15 U.S.C. 78f(b).

²⁰ 15 U.S.C. 78f(b)(5).

²¹ Id.

traffic. This may provide further opportunities for auctioned orders to receive price improvement, which ultimately benefits investors. In particular, the Exchange believes the proposed rule change will continue to appropriately balance providing investors with timely processing of their options quote and order messages and providing investors who submit orders that are auctioned with additional liquidity. Indeed, the proposed rule change may allow more investors additional opportunities to receive price improvement through an auction mechanism. Additionally, because the proposed functionality may provide liquidity providers that submit auction responses with additional execution opportunities in auctions, the Exchange believes they may be further encouraged to submit more auction responses, which may contribute to a deeper, more liquid auction process that provides investors with additional price improvement opportunities. The Exchange believes the proposal will continue to allow the Exchange to set each auction response period or exposure time to an amount of time that provides Trading Permit Holders submitting responses with sufficient time to respond to, compete for, and provide price improvement for orders, but also continues to provide auctioned orders with improved execution opportunities and minimal impact on market and execution risk.

The Exchange believes the proposed rule change will result in increased execution opportunities for liquidity providers that submit auction responses and enhance the potential for price improvement for orders submitted to each mechanism to the benefit of investors and public interest. The proposed rule change will permit the Exchange to set a longer time period in all classes in which the System may process auction responses the System receives before the end of an auction response or exposure period (as identified by each auction response message's NIC timestamp). The Exchange believes the proposed increase in maximum time will increase the possibility that timely submitted auction responses are processed by the Exchange and have an

opportunity for execution in the applicable auction mechanism, even if there is a deep pending message queue. The Exchange believes the proposed maximum amount of additional time for processing will permit the Exchange to respond to times of high message traffic. The Exchange generally experiences significant increases in volumes and messages traffic when the market experiences volatility. As a result, the Exchange has observed deeper pending message queues, which results in an increased number of timely received auction responses not being processed as part of the execution at the conclusion of an auction. Based on these observations, the Exchange believes the proposed maximum time may increase the number of timely received auction responses that may execute against an auction order.²²

The sunset period permitted the Exchange to evaluate whether a longer auction response processing time would continue to be appropriate in times of high volatility. For example, in 2025 prior to May 12 (the date on which the Exchange implemented the longer auction processing response time for SPX options), the percentage of auction responses in SPX that were received by the System before the end of the auction period (i.e., had received a NIC timestamp) but were rejected because the Exchange could not process them before the end of the auction response or exposure period, as applicable, plus shorter buffer time, reached over 20% on several occasions and averaged approximately 7.64%. Between May 12 and September 5, this percentage was nearly 0. Despite the maximum auction response processing time being 900 milliseconds, the average length of that time period used since that time was only about 14

²² The Exchange has undertaken various steps to improve the performance (including to reduce latency) of the matching engine on which SPX trades. For example, the Exchange made hardware and software upgrades. See <https://www.cboe.com/notices/content/?id=53830>. Additionally, the Exchange adopted an excessive mass cancel and purge charge to encourage efficient use of network and system capacity and reduce the incentive for market participants to engage in excessive mass cancellation and purge activity, which may create latency and impact other market participants' ability to receive timely executions. See Securities Exchange Act Release No. 103040 (May 14, 2025), 90 FR 21525 (May 20, 2025) (SR-CBOE-2025-033). The Exchange regularly evaluates other potential means that may improve performance and reduce latency for all options.

milliseconds. The data demonstrates the effectiveness of the longer auction response processing time for SPX options. The proposed rule change would permit the Exchange to retain this longer auction response period for SPX and thus retain these benefits, as well as extend these benefits to other classes traded on the Exchange. Given that times of high volatility are unpredictable, and impact all classes, having the longer response processing time available at all times will permit the Exchange to continue to achieve these results when volatile times do occur. Additionally, given the continued increase in options volumes across the industry (and thus all classes), the Exchange believes all classes could benefit from the additional processing times.

While the proposed increase is significant, the Exchange notes that the combined maximum length of the auction response or exposure period plus the auction response processing period is the same length as the maximum permissible auction response or exposure period for certain auctions.²³ Therefore, the Commission has already determined that letting a price improvement auction occur for up to 1000 milliseconds is consistent with the Act (which would permit the combined maximum auction response period plus maximum auction response processing time to be 1000 milliseconds for auctions). Given that the current length of the non-FLEX auctions is 100 milliseconds (except for SUM auctions, for which the exposure period is 50 milliseconds), and the auction response processing time is 100 milliseconds (except for SPX, for which it is 900 milliseconds pursuant to the current temporary rule), the proposed rule change would increase the total maximum processing time (auction response period plus response processing) for all non-FLEX classes other than SPX by 800 milliseconds (850 milliseconds for

²³ See Rule 5.35(b)(1), 5.39(c)(3), and 5.40(c)(3) (which permit the Exchange to set the length of the SUM, SAM, and C-SAM exposure and auction response periods, as applicable, up to one second. Rules 5.33(d)(3), 5.37(c)(3), and 5.38(c)(3) permit the Exchange to set the length of the COA, AIM, and C-AIM, respectively, auction response periods up to three seconds. Current lengths of auction response and exposure periods are available at [cboe_options_product_configurations.xlsx](#).

SUM auctions) and would keep the maximum processing time for non-FLEX SPX options the same. The proposed rule change provides the Exchange with flexibility to increase the number of auction responses that can participate in an auction without increasing the length of an auction (and may permit the Exchange to reduce the length of an auction). While the Exchange may increase the length of auction response periods to accommodate more auction responses, the Exchange believes shifting some of the already permissible auction response or exposure period time to the auction response processing time that may occur after the conclusion of the auction response or exposure period better addresses the issue of missed auction responses. Particularly, the Exchange believes the proposed rule change will accommodate more auction responses while also mitigating market risk that may accompany a longer auction period by setting the length of an auction response period to a timeframe that both allows an adequate amount of time for Trading Permit Holders to respond to an auction message and provides the auctioned order with fast executions.

Additionally, the Exchange understands some Trading Permit Holders choose to submit auction responses towards the end of an auction response period to better ensure the response is at a price that the market participant is willing to trade given the market at the time the auction response period concludes. This is particularly true during times of higher volatility, as have recently occurred, which times also result in higher message traffic and thus makes it more likely these auction responses will not participate in the auction. As such, extending the auction response period in each auction would not itself prevent auction responses from continuing to miss the auction notwithstanding being timely submitted. Therefore, the Exchange believes extending the auction response processing time is preferable to extending the auction response or

exposure period, which the Exchange believes would not prevent auction responses from continuing to miss the auction notwithstanding being timely submitted.

The Exchange believes the proposed increase in maximum auction response processing time for all options will provide an adequate amount of time to provide pending auction responses with execution opportunities in times of high message traffic and will continue to have a de minimis impact on other message traffic. Even in times of high message traffic, auction responses continue to represent a small percentage of volume on the Exchange. Auction responses account for a small fraction of message traffic submitted to the Exchange. The Exchange believes the processing of such a small amount of message traffic, even after the conclusion of an auction response period, would therefore continue to have de minimis, if any, impact on the processing of non-auction response messages waiting in the queue, even if that processing occurs over a longer timeframe. The Exchange also notes that all messages are currently processed one at a time by the System. Therefore, the System still needs to “process” all pending auction responses, regardless of whether that processing involves canceling the pending auction response because it wasn’t processed in time to participate in the auction or actually processing the response to participate in the auction. Either way, the non-auction response messages will still have to wait for processing of any pending responses ahead of it, regardless of the length of the auction response processing time. Further, updates to prices in the market will still be processed in the same order, and thus executions of the responses at the end of the buffer will not trade through the market at that time. The Exchange notes the proposed rule change makes no changes to how the auction response processing functionality will work (or how any auctions work). Additionally, all message traffic (including auction responses) will continue to be processed in time-priority. Therefore, the Exchange believes any impact of

processing additional auction responses for inclusion in an auction rather than cancelling those responses will have minimal impact on message traffic behind them.

The Exchange continues to believe in the vast majority of cases, the additional time needed after the conclusion of an auction response period, if any, to process all pending auction responses will be shorter than the proposed maximum (and possibly zero). This is a further benefit of being able to increase the length of the auction response processing time rather than the length of an auction response period. Unlike an auction response period, which must run in its entirety, the auction response processing is adaptable. For example, if the System is “caught up” and processes all auction responses received prior to the completion of a 100 millisecond auction response period within 50 milliseconds after the end of the auction period, the total processing time would be 150 milliseconds. The System only uses the portion of the auction response processing time it needs to process responses timestamped prior to the end of the auction period. To the extent the Exchange determines a lesser amount of time would be sufficient, the Exchange could implement an additional amount of time for processing auction responses that is less than the combined time of 1000 milliseconds, which time would be announced with reasonable advance notice to market participants via Exchange Notice.²⁴ Additionally, in practice, the Exchange generally discusses with market participants potential changes to the length of auction response or exposure periods and to the auction response processing timer. Further, given the advanced notice that will be provided of any change, market participants may contact the Exchange to discuss any proposed changes.

²⁴ The Exchange generally gives notice one to two weeks in advance of implementation for changes such as this; however, shorter notice may be provided if the Exchange believes it is necessary to maintain fair and orderly markets.

The markets have experienced periods of high volatility in recent weeks, which generally results in increased market traffic. The Exchange has observed during these higher market traffic times an increase in the number of auction responses not being able to participate in auctions, notwithstanding being timely submitted within the auction response period, except recently in SPX given the longer auction processing time during the current sunset period. This higher traffic generally occurs across all classes. The Exchange believes permitting an increased auction response processing time in all classes would better provide market participants with additional opportunities for price improvements with very little, if any, impact to non-auction response message traffic, thereby removing impediments to a free and open market and ultimately protecting and benefiting investors. Additionally, because the proposed rule change may provide liquidity providers that submit auction responses with additional execution opportunities in auctions, the Exchange believes they may be further encouraged to submit more auction responses, which may contribute to a deeper, more liquid auction process that provides investors with additional price improvement opportunities.

Given the current maximum auction response processing time in classes and other SPX (and if the current higher time applicable to SPX were to sunset), investors may miss out on opportunities to receive price improvement through the Exchange's auction mechanisms, even if such responses were timely submitted but not processed due to the System being otherwise occupied processing messages in queue ahead of it. The Exchange therefore believes its proposal will make it more likely that the System processes timely submitted auction responses and includes them in applicable auctions during periods of high message traffic, thus providing them with more opportunities to execute against auctioned orders.

Given the much longer length of FLEX auctions, which may last three seconds to five minutes (see Rules 5.72(c)(1)(F), 5.73(c)(3), and 5.74(c)(3)), the Exchange believes an increase in auction response processing is unnecessary, which is why the Exchange proposes to exclude FLEX SPX options from the proposal.

The Exchange does not believe the proposed functionality raises any novel legal or regulatory issues as the proposed maximum auction response processing time is significantly shorter than the longest maximum auction response or exposure period permissible in the Exchange's Rules.²⁵ As discussed above, the proposed rule change effectively only increases the permissible response time by no more than 850 milliseconds. The Exchange notes the proposed rule change makes no changes to how the auction response processing functionality will work (or how any auctions work). Additionally, all message traffic (including auction responses) will continue to be processed in time-priority, including market price updates, and thus the System is designed to prevent trade-throughs. The proposed rule change merely shifts some of the permissible auction response or exposure period time to the auction response processing time that may occur after the conclusion of the auction response or exposure period.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange does not believe that the proposed changes will impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act, as the

²⁵ See Rules 5.33(d)(3), 5.37(c)(3), and 5.38(c)(3) (which permits the Exchange to set the length of the COA, AIM, and C-AIM, respectively, auction response periods up to three seconds). Given that the auction response processing time plus the length of the auction response or exposure period may not exceed 1000 milliseconds, the maximum auction response processing time will be significantly less than the maximum auction response time currently permissible under the Exchange's Rules.

proposed rule change would apply equally to all Trading Permit Holders that submit auction responses. The proposed rule change would permit a longer auction processing time for all classes on the Exchange, and thus market participants in all classes would be able to benefit from this increased processing time, including reducing the likelihood that their auction responses are rejected. Additionally, as noted above, the Exchange believes the proposed increase in the maximum auction response processing time will have little to no impact on non-auction response message traffic and continues to be designed to prevent trade-throughs given all messages, including market price updates, will continue to be processed in time priority. The Exchange does not believe the proposed rule change will impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the purposes of the Act, as the proposed change affects how the System processes auction responses that may only participate in auctions that occur on the Exchange.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission will:

- A. by order approve or disapprove such proposed rule change, or
- B. institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-CBOE-2025-074 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to file number SR-CBOE-2025-074. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>).

Copies of the filing will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection.

All submissions should refer to file number SR-CBOE-2025-074 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁶

Sherry R. Haywood,
Assistant Secretary.

²⁶ 17 CFR 200.30-3(a)(12).