SECURITIES AND EXCHANGE COMMISSION (Release No. 34-91875; File No. SR-CboeBZX-2021-036)

May 12, 2021

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing of a Proposed Rule Change to Exclude a National Best Bid or Offer from the Calculation of the BZX Official Closing Price, as Provided in Rule 11.23(c)(2)(B)(ii)(b), That is Outside the Bands Provided Under the Plan to Address Extraordinary Market Volatility

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), and Rule 19b-4 thereunder, notice is hereby given that on April 29, 2021, Cboe BZX Exchange, Inc. ("Exchange" or "BZX") filed with the Securities and Exchange Commission ("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. <u>Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change</u>

Cboe BZX Exchange, Inc. (the "Exchange" or "BZX") is filing with the Securities and Exchange Commission ("Commission") a proposed rule change to exclude an National Best Bid or Offer³ ("NBBO") from the calculation of the BZX Official Closing Price, as provided in Rule 11.23(c)(2)(B)(ii)(b), that is outside the bands provided under the Plan to Address Extraordinary Market Volatility (the "Limit Up-Limit Down" or "LULD" Plan).⁴ The text of the proposed rule change is provided in Exhibit 5.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

See BZX Rule 1.5(o).

See Securities Exchange Act No. 88704 (April 21, 2020) 85 FR 23383 (April 27, 2020)
 (File No. 4-634) (Amendment No. 20 Approval Order).

The text of the proposed rule change is also available on the Exchange's website (http://markets.cboe.com/us/equities/regulation/rule_filings/bzx/), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

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

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. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis</u> for, the Proposed Rule Change

1. <u>Purpose</u>

The Exchange proposes to amend BZX Rule 11.23, Auctions, to modify how the BZX Official Closing Price, which is the price disseminated to the consolidated tape as the market center closing trade,⁵ would be determined for any BZX-listed security that is not a corporate security (i.e., an Exchange-Traded Product ("ETP") as provided in Exchange Rule 14.11, also referred to as a "Derivative Securities Product") when the time-weighted average price of the NBBO midpoint is used to calculate the BZX Official Closing Price, as set forth in Rule 11.23(c)(2)(B)(ii)(b). This provision of Rule 11.23(c)(2)(B)(ii)(b) is only used to determine the BZX Official Closing Price and does not impact any executions in the Closing Auction. Such provision also only applies where there is less than one round lot executed in the Closing Auction and where there has not been a trade that would qualify as a Final Last Sale Eligible Trade within the final five minutes before the end of

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⁵ See Exchange Rule 11.23(a)(3).

Regular Trading Hours. The Exchange is proposing instead to exclude from this midpoint calculation under Rule 11.23(c)(2)(B)(ii)(b) any NBBO when either the NBB is lower than the Lower Price Band or the NBO is higher than the Upper Price Band, as further described below. Excluding such NBBOs from the calculation will ensure that only those quotes in which both the NBB and NBO are actually executable will be included in determining the BZX Official Closing Price.

Rule 11.23(c)(2)(B)(i) through (iii) sets forth how the BZX Official Closing Price for Derivative Securities Products is determined. Paragraph (B)(i) provides that where at least one round lot is executed in the Closing Auction, the Closing Auction price will be the BZX Official Closing Price. Paragraph (B)(ii) provides that in the event that the BZX Official Closing Price cannot be determined under paragraph (B)(i), the BZX Official Closing Price for such security will depend on when the last consolidated last-sale trade occurs. Specifically, if a trade that would qualify as a Final Last Sale Eligible Trade⁶ occurred (a) within the final five minutes before the end of Regular Trading Hours,⁷ the Final Last Sale Eligible Trade will be the BZX Official Closing Price; or (b) prior to five minutes before the end of Regular Trading Hours, the time-weighted average price of the NBBO midpoint measured over the last five minutes before the end of Regular Trading Hours will be the BZX Official Closing Price. Paragraph (B)(iii) provides that if the BZX

The term "Final Last Sale Eligible Trade" shall mean the last round lot trade occurring during Regular Trading Hours on the Exchange if the trade was executed within the last one second prior to either the Closing Auction or, for Halt Auctions, trading in the security being halted. Where the trade was not executed within the last one second, the last round lot trade reported to the consolidated tape received by the Exchange during Regular Trading Hours and, where applicable, prior to trading in the security being halted will be used. If there is no qualifying trade for the current day, the BZX Official Closing Price from the previous trading day will be used. See BZX Rule 11.23(a)(9).

The term "Regular Trading Hours" means the time between 9:30 a.m. and 4:00 p.m. Eastern Time. See BZX Rule 1.5(w).

Official Closing Price cannot be determined under paragraphs (B)(i) or (B)(ii), the Final Last Sale Eligible Trade will be the BZX Official Closing Price.

The Exchange proposes to amend Rule 11.23(c)(2)(B)(ii)(b) in order to change how the BZX Official Closing Price is calculated using the time-weighted average price of the NBBO midpoint measured over the last five minutes before the end of Regular Trading Hours. Under current functionality, the Exchange uses all NBBO quotes during the last five minutes of Regular Trading Hours to determine the BZX Official Closing Price under Rule 11.23(c)(2)(B)(ii)(b). Certain market conditions may result in setting a BZX Official Closing Price that is not necessarily reflective of a Derivative Securities Product's reasonable market value. For example, if during a particular period of time in the last five minutes of Regular Trading Hours, a Derivative Securities Product has an NBO that is reasonably reflective of the current market value and an NBB that is significantly away from the current market value, the midpoint of the NBBO could be significantly lower than the reasonable market value of the security. In turn, the BZX Official Closing Price, when determined pursuant to Rule 11.23(c)(2)(B)(ii)(b), could also be set at a price that is significantly lower than the reasonable market value of the security.

Moreover, Rule 11.23(c)(2)(B)(ii)(b) is the only method of determining the BZX Official Closing Price that does not provide safeguards against a price that would not have been executable during Regular Trading Hours. Specifically, if the BZX Official Closing Price were determined pursuant to Rule 11.23(c)(2)(B)(i), the price would be determined as a result of the Closing Auction which must occur at a price within a Collar Price Range. Generally, the Collar Price Range limits the Closing Auction from occurring at a price ranging from up to 10% below the Collar Midpoint Price Range.

⁸ See Exchange Rule 11.23(a)(6).

⁹ <u>Id.</u>

to up to 10% above the Collar Midpoint, and is based on the Exchange's clearly erroneous execution standards as detailed in Rule 11.17(c)(1). Similarly, if the BZX Official Closing Price were determined pursuant to Rules 11.23(c)(2)(B)(ii)(a) or 11.23(c)(2)(B)(iii), the price would be determined by the Final Last Sale Eligible Trade, as described above. Any Final Last Sale Eligible Trade would occur during Regular Trading Hours, and thus could not occur outside the bands provided under the LULD Plan, as further discussed below.

Given the above, the Exchange proposes to amend Rule 11.23(c)(2)(B)(ii)(b) to exclude an NBBO outside the bands provided under the LULD Plan from the BZX Official Closing Price calculation. By way of background, the LULD Plan created a market-wide limit up-limit down mechanism to address extraordinary volatility in NMS Stocks by preventing unwarranted Trading Pauses¹¹ that are unrelated to volatility while also reducing the negative impacts of sudden unanticipated price movements in NMS Stocks. ¹² The LULD Plan provides for market-wide single-stock price bands designed to prevent individual NMS Stocks from trading outside of specific price bands during Regular Trading Hours. Those price bands are based on a reference price for each NMS Stock that equals the arithmetic mean price of Eligible Reported Transactions¹³ for the NMS Stock over the immediately preceding five-minute period. ¹⁴ Specifically, the price bands for an

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¹⁰ See Exchange Rule 11.23(a)(9).

See section VII of the LULD Plan_https://assets.website-files.com/5fd0e55ae5f254cd291b2d35/5fd10d8e4c53d2024dd15f4f_LULD_Plan%20Am endment_20.pdf.

See Exchange Rule 11.18(e).

An "Eligible Reported Transaction" generally means transactions that are eligible to update the last sale price of an NMS Stock.

See Securities Exchange Act Release No. 67091 (May 31, 2012) 77 FR 33498 (June 6, 2012) (Order approving the National Market System Plan to Address Extraordinary Market Volatility).

NMS Stock are calculated by applying the Percentage Parameter¹⁵ for such NMS Stock to the Reference Price, with the "Lower Price Band" being a Percentage Parameter below the Reference Price, and the "Upper Price Band" being a Percentage Parameter above the Reference Price. The Upper and Lower Price Bands are calculated and disseminated market-wide by the securities information processor ("SIP") feeds with trading generally prohibited outside of the specified price bands. Thus, orders priced outside the Upper and Lower Bands are non-executable. ¹⁶ The Percentage Parameter is determined by a security's designation as a Tier 1¹⁷ or Tier 2¹⁸ security. Currently, all Derivative Securities Products listed on the Exchange are Tier 2 Securities, which have the following pricing parameters under the LULD Plan: securities greater than \$3.00 have a Percentage Parameter of 10%; securities \$0.75 up to and including \$3.00 have a Percentage Parameter of 20%, and, securities less than \$0.75 have a Percentage Parameter of the lesser of \$0.15 or 75%. ¹⁹ As discussed in the Eighteenth Amendment to the LULD Plan, ²⁰ recent data has shown that the Percentage Parameters used to determine the width of the price bands were reasonably

The "Percentage Parameter" means the percentages for each tier of NMS Stocks set forth in Appendix A of the Plan.

See Exchange Rule 11.18(e)(4). Additionally, paragraph VI(A)(2) of the LULD Plan states "When a National Best Bid is below the Lower Price Band or a National Best Offer is above the Upper Price Band for an NMS Stock, the Processor shall disseminate such National Best Bid or National Best Offer with an appropriate flag identifying it as non-executable."

Tier 1 securities comprise all securities in the S&P 500, the Russell 1000, and select ETPs.

Tier 2 securities comprise of all NMS Stocks not included in Tier 1, except for rights and warrants, which are specifically excluded from coverage.

See the LULD Annual Report for 2020 at 60663c2660e0056c9c8b6023_LULD FINAL.pdf (website-files.com).

See Securities Exchange Act Release No. 84843 (December 18, 2018) 83 FR 66464 (December 26, 2018). See also Securities Exchange Act Release No. 85623 (April 11, 2019) 84 FR 16086 (April 17, 2019) (File No. 4-631).

designed to ensure that they were not too wide as to permit trades to occur at prices that do not properly reflect supply and demand, and not too narrow as to cause excessive disruptions, inhibiting the price discovery process.

Similar to the LULD Plan, the Exchange's proposal seeks to calculate a BZX Official Closing Price pursuant to Rule 11.23(c)(2)(B)(ii)(b) that accurately reflects the supply and demand in the Derivative Securities Product. Therefore, the Exchange believes it is reasonable to limit the NBBO used to calculate the Official Closing Price pursuant to Rule 11.23(c)(2)(B)(ii)(b) to an NBB and NBO within the LULD Bands. As stated above, certain market conditions may result in setting a BZX Official Closing Price that is not necessarily reflective of a Derivative Securities Product's reasonable market value. For example, if during the last two minutes of Regular Trading Hours the NBB is below the Lower Price Band while the NBO is inside the price band (i.e., a straddle state), the NBBO midpoint and in turn the BZX Official Closing Price may be significantly lower than the reasonable market value of the Derivative Securities Product. In turn, the BZX Official Closing Price, when determined pursuant to Rule 11.23(c)(2)(B)(ii)(b), could also be set at a price that is significantly lower than the reasonable market value of the security. As proposed, the NBBO in the above example would be excluded from the Official Closing Price calculation provided under Rule 11.23(c)(2)(B)(ii)(b) as the NBB was below the Lower Price Band. The Exchange believes it is reasonable to exclude such an NBBO because the NBB in this example would not have been executable during Regular Trading Hours as it was below the Lower Price Band, and thus could not contribute to an NBBO that is reflective of a Derivative Securities Product's reasonable market value. The Exchange believes that this proposed change will ensure a BZX Official Closing Price determined pursuant to Rule 11.23(c)(2)(B)(ii)(b) does not occur at a price that would not have been executable in either the Closing Auction or during Regular Trading Hours. Further, the Exchange

believes the proposal will ensure that the BZX Official Closing Price is reflective of the reasonable market value of the Derivative Securities Product.

The Exchange notes NYSE Arca, Inc. ("NYSE Arca") Rule 1.11(ll)(1)(B) [sic] similarly provides for the exclusion of an NBBO midpoint that is not reflective of a security's true and current value from its calculation of the Official Closing Price. The intent of NYSE Arca Rule 1.11(ll)(1)(B) [sic] is to "validate whether an NBBO used in the calculation of the Official Closing Price bears a relation to the value of the underlying security." The Exchange's proposal similarly intends to exclude an NBBO from the calculation of the Official Closing Price that is not reasonably reflective of the current market value as the proposal would exclude an NBBO where one or both of the quotes comprising the NBBO would not have been executable during Regular Trading Hours.

The Exchange will implement the proposed rule change as soon as is practicable after the operative date of this proposed rule change and will announce the implementation date via Trade Desk Notice.

2. <u>Statutory Basis</u>

The Exchange believes that the proposed rule change is consistent with Section 6(b) of the Act,²² in general, and furthers the objectives of Section 6(b)(5) of the Act,²³ in particular, in that it is 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

See Securities Exchange Act No. 84079 (September 11, 2018) 83 FR 46981 (September 17, 2018) (SR-NYSEArca-2018-63) (the "NYSE Arca Proposal"). See also Securities Exchange Act No. 84471 (October 23, 2018) 83 FR 54384 (October 29, 2018) (SR-NYSEArca-2018-63) (the "Approval Order").

²² 15 U.S.C. 78f(b).

²³ 15 U.S.C. 78f(b)(5).

facilitating transactions in securities, and to remove impediments to and perfect the mechanism of a free and open market and a national market system.

The Exchange believes that the proposed rule change would remove impediments to and perfect the mechanism of a free and open market and a national market system because it is designed to prevent the BZX Official Closing Price from being set at a price that is significantly away from the reasonable market value of an Exchange-listed Derivative Securities Product.

Specifically, in the event that during the last five minutes of the Regular Trading Hours either the NBB or NBO (or both) is outside of the applicable LULD Bands, the proposed amendment would allow the Exchange to exclude such quotes from its calculation of the BZX Official Closing Price as provided under Rule 11.23(c)(2)(B)(ii)(b). The exclusion of an NBBO outside the LULD bands would help to ensure that the NBBO midpoint used in the calculation of the BZX Official Closing Price pursuant to the Rule accurately reflects the supply and demand in the Derivative Securities Product, and is not set at a price that would not have been executable during Regular Trading Hours.

Under current rules, Rule 11.23(c)(2)(B)(ii)(b) is the only mechanism for determining the BZX Official Closing Price that does not provide safeguards to ensure that the price is set near the reasonable market value of the Derivative Securities Product. As discussed above, if the BZX Official Closing Price were determined pursuant to Rule 11.23(c)(2)(B)(i), the price would be determined as a result of the Closing Auction which must occur at a price within a Collar Price Range that is similar to the Percentage Parameters provided under the LULD Plan. Similarly, if the BZX Official Closing Price were determined pursuant to Rules 11.23(c)(2)(B)(ii)(a) or 11.23(c)(2)(B)(iii), the price would be the Final Last Sale Eligible Trade which could not occur outside the bands provided under the LULD Plan. Therefore, the Exchange believes the proposed

change will provide greater transparency and certainty in the determination of the BZX Official Closing Price by eliminating the possibility that the BZX Official Closing Price could be set at a price that could not have executed in the Closing Auction or during Regular Trading Hours.

The Exchange believes the LULD bands are an appropriate mechanism to ensure that the BZX Official Closing Price is set at a price that reflects the reasonable market value of the Derivative Securities Product. The LULD Plan is intended to reduce the negative impacts of sudden unanticipated price movements in NMS Stocks, thereby protecting investors and promoting a fair and orderly market. As discussed above, the Exchange's proposal seeks to ensure a BZX Official Closing Price that accurately reflects the supply and demand in the Derivative Securities Product and prevent the calculation of the BZX Official Closing Price at a price that could not have occurred in the Closing Auction or during Regular Trading Hours. Therefore, the Exchange believes it is reasonable to limit the NBBO used for such calculation to an NBB and NBO within the LULD Bands.

While the Exchange believes the proposal would benefit investors, the Exchange does not believe that a significant number of quotes would be excluded from the calculation of the BZX Official Closing Price under the proposal. As noted in the LULD 2020 Annual Report, ²⁴ LULD events were less likely to occur during the last 25 minutes of the trading day. Despite accounting for just 6% of the trading day (except short days), the last 25 minutes accounted for 3.43% LULD events. Specifically, the last 25 minutes involved a daily average of 93.3 straddle states during 2020, when the total daily average number of straddle states was 3,044.7. Therefore, the Exchange does not expect quotes to be excluded from the BZX Official Closing Price calculation as proposed with great frequency.

See supra note 19.

B. <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

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 proposed rule change is designed to ensure that the BZX Official Closing Price of BZX-listed Derivative Securities Products is calculated, pursuant to Rule 11.23(c)(2)(B)(ii)(b), at a price that is reasonably reflective of the market value of the security in the event that either the NBB or NBO is significantly away from the reasonable market value of the security during the last five minutes of Regular Trading Hours. Further, the proposal is designed to ensure that such a BZX Official Closing Price is not set at a price that would not have been executable during Regular Trading Hours or in the Closing Auction. The Exchange believes the proposed changes would improve the experience of market participants trading on the Exchange without imposing any significant burden on competition as the proposal would simply provide for safeguards to ensure that the BZX Official Closing Price is set near the reasonable market value of the Derivative Securities Product. Further, as the proposal is designed to ensure the BZX Official Closing Price calculated pursuant to Exchange Rule 11.23(c)(2)(B)(ii)(b) accurately reflects the supply and demand in the Derivative Securities Product, the Exchange believes the proposal will help it better compete as a listing venue.

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

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 (http://www.sec.gov/rules/sro.shtml); or
 - Send an e-mail to <u>rule-comments@sec.gov</u>. Please include File Number SR-CboeBZX-2021-036 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-CboeBZX-2021-036. This file number should be included on the subject line if e-mail 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 (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those

that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, D.C. 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-CboeBZX-2021-036 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁵

> J. Matthew DeLesDernier **Assistant Secretary**

²⁵ 17 CFR 200.30-3(a)(12).