

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-96600; File No. SR-NASDAQ-2022-079)

January 4, 2023

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Filing of Proposed Rule Change to Amend Rules 4702(b)(14) and (b)(15) Concerning Dynamic M-ELO Holding Periods

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup>, and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on December 21, 2022, The Nasdaq Stock Market LLC (“Nasdaq” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I and II, 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 Rules 4702(b)(14) and (b)(15) of the Exchange’s Rulebook to replace the static holding period requirements for Midpoint Extended Life Orders and Midpoint Extended Life Orders Plus Continuous Book with dynamic holding periods.

The text of the proposed rule change is available on the Exchange’s Website at <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules>, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

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

---

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

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 proposes to amend Rules 4702(b)(14) and (15) of the Exchange’s Rulebook to replace the static 10 millisecond holding period requirements for its Midpoint Extended Life Order (“M-ELO”) and Midpoint Extended Life Order Plus Continuous Book (“M-ELO+CB”) Order Types with dynamic holding periods (“Dynamic M-ELO and M-ELO+CB” or collectively, “Dynamic M-ELO”).

Background

In 2018, the Exchange introduced the M-ELO, which is a Non-Displayed Order priced at the Midpoint between the National Best Bid and Offer (“NBBO”) and which is eligible for execution only against other eligible M-ELOs and only after a minimum of one-half second passes from the time that the System accepts the order (the “Holding Period”).<sup>3</sup> In 2019, the Exchange introduced the M-ELO+CB, which closely resembles the M-ELO, except that a M-ELO+CB may execute at the midpoint of the NBBO, not only against other eligible M-ELOs (and M-ELO+CBs), but also against Non-Displayed Orders with Midpoint Pegging and Midpoint Peg Post-Only Orders (“Midpoint Orders”) that rest on the Continuous Book for at least one-half second and have Trade Now enabled.<sup>4</sup>

---

<sup>3</sup> See Securities Exchange Act Release No. 34-82825 (March 7, 2018), 83 FR 10937 (March 13, 2018) (SR-NASDAQ-2017-074) (“M-ELO Approval Order”).

<sup>4</sup> See Securities Exchange Act Release No. 34-86938 (September 11, 2019), 84 FR 48978 (September 17, 2019) (SR-NASDAQ-2019-048) (“M-ELO+CB Approval Order”).

When the Exchange designed M-ELO, it originally set the length of the Holding Period at one-half second because it determined that this time period would be sufficient to ensure that likeminded investors would interact only with each other, and with minimal market impacts. The Exchange believed that the longer length of the M-ELO Holding Period and its simplicity in design would provide greater protection for participants than they could achieve through competing delay mechanisms.

In 2020, however, the Exchange shortened the length of the Holding Period to 10 milliseconds.<sup>5</sup> The Exchange did so after studying two years of actual use and performance of M-ELOs, as well as customer feedback. That is, the Exchange came to understand that, while users of M-ELO and M-ELO+CB are less concerned with achieving rapid executions of their Orders than are other participants, they are not indifferent about the length of time in which their M-ELOs and M-ELO+CBs must wait before they are eligible for execution. Indeed, participants informed the Exchange that in certain circumstances, such as when they sought to trade symbols that on average had a lower time-to-execution than a half-second, they were reticent to enter M-ELOs or M-ELO+CBs. They indicated that the associated Holding Periods for these Order Types were longer than necessary to achieve the desired protections and that, during the residual portion of the Holding Periods, they risked losing out on favorable execution opportunities that would otherwise be available to them had they placed a non-MELO order.

Based upon this feedback, the Exchange studied the potential effects of reducing the length of the Holding Periods for both M-ELOs and M-ELO+CBs (as well as for Midpoint Orders that would execute against M-ELO+CBs). Ultimately, the Exchange determined that it

---

<sup>5</sup> See Securities Exchange Act Release No. 34-88743 (April 24, 2020), 85 FR 24068 (April 30, 2020) (SR-NASDAQ-2020-011) (“M-ELO Timer Approval Order”).

could reduce the Holding Periods to 10 milliseconds without compromising the protective power that M-ELO and M-ELO+CB are intended to provide to participants and investors.<sup>6</sup> Thus, the Exchange determined that shortening the Holding Periods to 10 milliseconds for M-ELOs and M-ELO+CBs would increase the efficacy of the mechanism while not undermining the power of those Order Types to fulfill their underlying purpose of minimizing market impacts. At the same time, the Exchange determined that a reduction in the Holding Periods to 10 milliseconds would dramatically add to the circumstances in which M-ELOs and M-ELO+CBs would be useful to participants. In its M-ELO Timer Approval Order, the Commission agreed with the Exchange:

The Commission notes that, with the proposed ten-millisecond Holding Period and Resting Period, M-ELOs and M-ELO+CBs would continue to be optional order types that are available to investors with longer investment time horizons, including institutional investors. The Commission also believes that the proposal could make M-ELOs and M-ELO+CBs more attractive for securities that on average have a time-to-execution of less than one-half second and, for investors who currently do not use M-ELOs and M-ELO+CBs for these securities, provide optional order types that could

---

<sup>6</sup> The Exchange examined each of its historical M-ELO executions to determine at what Midpoints of the NBBO the M-ELOs would have executed if their Holding Periods had been shorter than one-half second (500 milliseconds). After examining the historical effects of shorter Holding Periods of between 10 milliseconds and 400 milliseconds, the Exchange determined that a reduction of the M-ELO Holding Period to as short as 10 milliseconds would have caused an average impact on markouts of only 0.10 basis points (across all symbols). In other words, compared to the execution price of an average M-ELO with a one-half second Holding Period, the Exchange found that a M-ELO with a 10 millisecond Holding Period would have had an average post-execution impact that was only a tenth of a basis point per share – a difference in protective effect that is immaterial. See Nasdaq, “The Midpoint Extended Life Order (M-ELO); M-ELO Holding Period,” available at <https://www.nasdaq.com/articles/the-midpoint-extended-life-order-m-elo%3A-m-elo-holding-period-2020-02-13> (analyzing effects of shortened Holding Periods on M-ELO performance).

enhance their ability to participate effectively on the Exchange. The Commission notes that, if market participants determine that the proposal would make M-ELOs and M-ELO+CBs less attractive for their particular investment objectives, such market participants may elect to reduce or eliminate their use of these optional order types. Moreover, as noted above, the Exchange will continue to conduct real-time surveillance to monitor the use of M-ELOs and M-ELO+CBs to ensure that such usage remains appropriately tied to the intent of the order types. If, as a result of such surveillance, the Exchange determines that the shortened Holding Period does not serve its intended purpose or adversely impacts market quality, the Exchange would seek to make further recalibrations.<sup>7</sup>

For similar reasons and with even better potential results for participants, the Exchange now proposes to further refine the length of the Holding Periods for M-ELOs and M-ELO+CBs, this time through the application of innovative and patent pending machine learning technology.

#### Dynamic M-ELO

After receiving feedback from participants that even 10 millisecond Holding Periods for M-ELO and M-ELO+CB may, at times, exceed what is necessary to accomplish the underlying intent of these Order Types, the Exchange began to experiment with making further refinements to the duration of the Holding Periods. Ultimately, the Exchange concluded that shorter Holding Periods could achieve the same, if not better results for participants in terms of mark-outs, but not in all circumstances. That is, where prices of the underlying securities are stable, and not subject to imminent unfavorable changes, M-ELOs and M-ELO+CBs face lower risks of

---

<sup>7</sup> M-ELO Timer Approval Order, supra, at 85 FR 24069.

confronting spread-crossing orders, such that shorter Holding Periods could suffice to protect M-ELOs and M-ELO+CB from such orders. In periods of heightened price volatility, however, M-ELOs and M-ELO+CBs also face heightened risks, such that longer Holding Periods would continue to be beneficial in protecting M-ELOs and M-ELO+CBs from such risks. Thus, the Exchange determined that another across-the-board reduction of the static 10 millisecond Holding Periods would be sub-optimal because it could impact the performance of the M-ELO and M-ELO+CB Order Types during periods of heightened volatility.

In light of these observations, the Exchange tasked its artificial intelligence and machine learning laboratory (the “AI Core Development Group”) to explore whether it could employ these innovative technologies to optimize the length of M-ELO and M-ELO+CB Holding Periods during various states of price volatility, and then to vary the lengths of the Holding Periods dynamically during the lifecycles of M-ELOs and M-ELO+CBs, with the objectives of improving the performance of these Order Types while also further reducing opportunity costs.

As the Exchange explains in greater depth in the attached white paper,<sup>8</sup> the AI Core Development Group proceeded to develop an artificial intelligence-based timer control system that will achieve these objectives.<sup>9</sup> The AI Core Development Group did so by using

---

<sup>8</sup> See Diana Kafkes et al., “Applying Artificial Intelligence & Reinforcement Learning Methods Towards Improving Execution Outcomes,” SSRN, October 19, 2022, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4243985](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4243985) (attached hereto as Exhibit 3) (the “White Paper”).

<sup>9</sup> Although the AI Core Development Group acknowledges that an optimal Holding Period would update with every incoming order, it determined that training a reinforcement learning model on every order would be too difficult to program and too difficult to implement given the nanosecond latency requirements of the Exchange. The Group then investigated more feasible update cadences and determined the point at which optimal outcomes were best balanced with the level of programming and implementation difficulty to be between 15 and 30 second updates. Ultimately, the Group chose a 30 second update cadence to give the model the greatest opportunity to learn between potential actions.

reinforcement learning techniques – machine learning paradigms which develop optimal solutions to problems over time by taking actions to solve them, generating feedback on the results of such actions, applying that feedback to direct and improve the next round of solutions, and then repeating the feedback loop until the paradigm achieves optimized solutions.

In this instance, the AI Core Development Group applied reinforcement learning techniques to a simulation of the M-ELO Book that it constructed using a representative data set from the first quarter of 2022 (the “Training Period”). The Training Period data consisted of 380 out of the 6,257 symbols on the M-ELO Book (accounting for approximately 67 percent of M-ELO volume). The symbols chosen reflect both actively-traded and thinly-traded securities, and both low-priced and high-priced securities.

The AI Core Development Group then developed a machine learning model with more than 140 features<sup>10</sup> and applied it to the Training Period data. The Group programmed the model to value the achievement of higher fill rates or lower mark-outs than that which occurred in a historical simulation of M-ELOs and M-ELO+CBs involving the Training Period data.<sup>11</sup> The Group then programmed the model to seek to achieve its goals by taking one of five possible actions with respect to the duration of the Holding Periods at 30 second intervals<sup>12</sup> for each symbol during each trading day of the Training Period. That is, at each 30 second interval, the model evaluated market conditions for each symbol over the prior 30 second period and either kept the Holding Periods the same, increased/decreased them by 0.25 milliseconds, or

---

<sup>10</sup> See White Paper, supra, at 31, for a description of these features.

<sup>11</sup> As the White Paper explains, the Group developed a model to simulate activity on the Exchange involving M-ELOs and M-ELO+CBs during the Training Period. See White Paper, supra, at 10.

<sup>12</sup> See id.

increased/decreased them by 0.50 milliseconds.<sup>13</sup> After each decision-making round, the model utilized the results to inform its actions at the next 30 second increment.

In making its decisions, the model considered 142 categories of data points. A confluence of data points that correlated with an increase in volatility tended to cause the model to increase the durations of Holding Periods, including increases in the standard deviation of NBBO prices, the number of unique participants placing sell orders on M-ELO and M-ELO+CB, and the volume-weighted average of the NBBO spread. Conversely, a confluence of data points that correlated with greater price stability tended to cause the model to decrease the durations of Holding periods, such as an increase in the median and max number of shares per trade and the number of resting bids left in the M-ELO and M-ELO+CB Book.

The AI Core Development Team produced variations of its model that prioritized achievement of the lowest mark-outs, the highest fill rates, and a blend of these two objectives.<sup>14</sup> Through a process of learning and experimentation, the AI Core Development Group settled on a Dynamic M-ELO model that achieved substantial performance improvements for users of M-ELO and M-ELO+CB – both in terms of markouts and fill rates – as compared to the static 10

---

<sup>13</sup> The AI Core Development Group experimented with a range of permissible Holding Period durations. Ultimately, it concluded that it could produce better outcomes for M-ELO and M-ELO+CB participants than the existing approach using Holding Periods as low as 0.25 milliseconds and as high as 2.5 milliseconds, under normal market conditions.

<sup>14</sup> The AI Core Development Group also applied to the model a paradigm called “retraining” to combat the degradation of model performance that can otherwise occur as the reference data it uses for initial comparison becomes stale. Finally, the AI Core Development group added a stability protection mechanism to the model to provide maximum production to participants in the event that the model observes extraordinary levels of instability in the National Best Bid and Offer during the prior three seconds as compared to reference data. When the model detects such instability, it is programmed to increase the length of the Holding Period to 12 milliseconds for a period of 750 milliseconds.



millisecond Holding Periods. As the White Paper explains in greater detail, Dynamic M-ELO yielded an average combined volume-weighted improvement of 31.7 percent, including a 20.3 percent increase in fill rates and a 11.4 percent reduction in mark-outs.<sup>15</sup> The White Paper provides a more fulsome explanation of these improvements.<sup>16</sup>

Based upon these exciting results, the Exchange now proposes to amend Rule 4702(b)(14) and (15) to replace the static 10 millisecond timers applicable to M-ELO and M-ELO+CB with Dynamic M-ELO Holding Periods. Using the Exchange's proprietary and patent pending technology, the Dynamic M-ELO system will evaluate and, as it deems necessary, adjust the length of the Holding Periods for each symbol comprising M-ELOs and M-ELO+CBs (and Midpoint Orders on the Continuous Book that opt to interact with M-ELO+CBs after resting on the Book) every 30 seconds throughout the Market Hours (each such 30 second interval, a "Change Event"). In so doing, Dynamic M-ELO will help participants to achieve a more optimized blend of the underlying purposes of the M-ELO and M-ELO+CB Order Types: protection against adverse selection (low mark-outs) without sacrificing opportunities to achieve high-quality executions (high fill rates).

A proposed M-ELO or M-ELO+CB with a Dynamic Holding Period will operate as follows. At the outset of Market Hours (approximately 9:30:00 AM), the Exchange will impose initial Holding Periods of 1.25 milliseconds for M-ELOs and M-ELO+CBs in all symbols. Thereafter, Holding Periods for a given symbol will become eligible to change dynamically from the initial duration beginning at 9:30:30AM and then at 30 second intervals thereafter during Market Hours. The Exchange will then apply to the M-ELO or M-ELO+CB Order a Holding

---

<sup>15</sup> See White Paper, supra, at 22.

<sup>16</sup> See id.

Period that is of the duration that prevailed at the time of entry. For example, if participant A enters a M-ELO for symbol XYZ at 9:30:25 AM, then Holding Period for that M-ELO will be 1.25 milliseconds. If at 9:30:30:00 AM, the System decides to lower the duration of the Holding Period by 0.50 milliseconds, and then participant B enters a M-ELO for symbol XYZ at 9:30:45 AM, then the System will assign a 0.75 millisecond Holding Period to participant B's M-ELO. To be clear, the System will determine Dynamic M-ELO Holding Periods independently for M-ELOs and M-ELO+CBs in each symbol.

During normal market conditions, the range of potential Holding Period durations for M-ELOs and M-ELO+CBs will be between 0.25 – 2.50 milliseconds, with the Holding Period duration being eligible to change by increments of either 0.25 or 0.50 milliseconds at each Change Event. Thus, if the Holding Period for a M-ELO in symbol XYZ is set at 0.75 milliseconds at 2:22:11 PM, and at 2:22:41 PM, the System determines to increase the duration of the Holding Period, it may do so only by 0.25 or 0.50 milliseconds during that event.

When a Change Event occurs, and the System determines to adjust the duration of a Holding Period for a symbol, that adjustment will apply, not only to all M-ELOs and M-ELO+CBs for that symbol entered within the 30 second period after the Change Event occurs, but also to M-ELOs and M-ELO+CBs entered prior to the Change Event with unexpired Holding Periods (with applicability retroactive to the time of Order acceptance). Thus, if a participant enters a M-ELO in symbol XYZ at 1:14:299 PM, and the prevailing Holding Period applicable to that M-ELO is 2 milliseconds, and at 1:14:30 PM, the System modifies the Holding Period to be 1.5 milliseconds, then the M-ELO will become eligible to execute at 1:14:3005 P.M. This is the case because the M-ELO will have already expended 1 millisecond of its Holding Period as of the time of the Change Event; thereafter, the M-ELO will need to rest only another 0.5

milliseconds to become eligible to execute under the new 1.5 millisecond Holding Period (as measured from 1:14:299 PM). This last feature ensures that the M-ELO Book maintains time priority among M-ELOs and M-ELO+CBs in a dynamic environment. That is, it ensures that no M-ELO or M-ELO+CB with an unexpired Holding Period at the time of a Change Event will end up becoming eligible to execute later than a M-ELO entered after the Change Event which has a shorter Holding Period applicable to it.

If at any time, the System detects extraordinary instability in a symbol, then the System will activate a “stability protection mechanism” to provide an extra layer of protection to M-ELO and M-ELO users from the heightened risks of adverse selection that exists during such periods of instability.<sup>17</sup> The stability protection mechanism will override the prevailing Holding Periods for M-ELOs and M-ELO+CBs in a symbol experiencing extraordinary instability and immediately increase the duration of those Holding Periods to 12 milliseconds for a period of 750 milliseconds. The System may activate the stability protection mechanism even between Change Events. The System will evaluate, at each NBBO update, whether market conditions remain extraordinarily unstable and, if so, it will restart the 750 millisecond Stability Protected Period and maintain the 12 millisecond Holding Period until conditions stabilize. Once the

---

<sup>17</sup> For purposes of this Rule, the System determines that “extraordinary instability” for a symbol exists through observations it makes following every change in the NBBO for that symbol that occurs during the trading day. When the NBBO changes, the System looks back at the prior three seconds of trading and measures the difference between the highest and the lowest NBBO midpoint values that occurred during that period, and then it compares that measurement to a threshold value for the symbol. The System concludes that extraordinary instability exists for a symbol if the measurement exceeds the threshold value.

The threshold value for a symbol, in turn, is the difference between the highest and the lowest NBBO midpoint values for the symbol that, if applied to its trading activity during the prior trading day, would have caused the System to deem trading in the symbol to be extraordinarily unstable for as close to one percent of that day as possible.

System determines that market conditions have stabilized (i.e., all measurements for the symbol are at or below the threshold value throughout the duration of the prevailing Stability Protected Period), the System will revert the duration of the Holding Periods to that which prevailed as of the Change Event that occurred immediately prior to the activation of the stability protection mechanism or, if the stability protection mechanism was active when a Change Event occurred, to the duration selected at the immediately preceding Change Event. The System will then proceed to reevaluate the duration of the Holding Periods as per the regular schedule of Change Events.

The following is an illustration of the operation of the stability protection mechanism. At 11:10:04 AM, the prevailing Holding Period for M-ELOs in symbol XYZ is 1.5 milliseconds. At the same time, the NBBO for symbol XYZ updates. The System looks back at the prior three seconds of trading in symbol XYZ and finds that during that period, the highest observed NBBO midpoint was \$10.05, and the lowest was \$10.00, such that the difference between these two values is a range of \$0.05. The System then looks back at trading behavior for symbol XYZ during the immediately preceding trading day. In doing so, the System calculates the value of the threshold that would have caused the symbol to be deemed extraordinarily unstable for one percent of the trading day; the System determines that this threshold value is a range of \$0.03. The System then compares the \$0.03 threshold to its measurement of the prior three seconds of NBBO changes (\$0.05), and concludes that over these past three seconds, the symbol is extraordinarily unstable. Accordingly, the System activates the stability protection mechanism and the Holding Period for M-ELOs in symbol XYZ immediately increases to 12 milliseconds for a period of 750 milliseconds. However, 5 milliseconds after the Stability Protection Period commences, the NBBO updates again, thus prompting the System to repeat its assessment of the

stability of the symbol in light of the update. This reassessment reveals that the symbol remains unstable, such that a new Stability Protection Period of 750 milliseconds begins at that time (overriding the pre-existing Period). Over the course of this new Stability Protection Period, the NBBO shifts two more times, but each of the ensuing reassessments indicate that the NBBO ranges for the symbol have fallen below the \$0.03 threshold. The Stability Protection Period elapses 750 milliseconds after it began with the symbol remaining stable. Thus, the Holding Period reverts to 1.5 milliseconds.

If the Exchange halts trading in a symbol, then upon resumption of trading, any new M-ELO or M-ELO+CB in that symbol and any pending M-ELO or M-ELO+CB in that symbol with an unexpired Holding Period will be subject to a new 12 milliseconds Holding Period (running from the time when trading resumes) until the next scheduled Change Event, at which point the System may determine to adjust that Holding Period to a duration within the range applicable under normal market conditions.<sup>18</sup> If, however, the System determines that extraordinary instability in the symbol exists, it may instead determine to activate the stability protection mechanism and maintain the duration of the Holding Period at 12 milliseconds for another 750 milliseconds. This design will help to ensure that M-ELOs and M-ELO+CBs receive added protection coming out of halt conditions.<sup>19</sup>

---

<sup>18</sup> Prior to commencement of a new 12 millisecond Holding Period for a new or pending M-ELO or M-ELO+CB following a Halt, the System will first determine whether the M-ELO or M-ELO+CB is or remains eligible for execution. That is, the Holding Period will commence only if, upon commencement of trading following the Halt, the midpoint price for the Order is within the limit set by the participant. If not, the System will hold the Order until the midpoint falls within the limit set by the participant, at which time the 12 millisecond Holding Period will commence.

<sup>19</sup> Also as a safeguard, the System will apply a default Holding Period of 12 milliseconds to a M-ELO or M-ELO+CB if ever it fails to receive a signal during a Change Event as to whether the System should adjust or maintain the duration of the prevailing Holding

The Exchange notes that same dynamic process described above will also apply to and govern the time periods during which Midpoint Orders on the Continuous Book must rest before they will become eligible to interact with M-ELO+CBs (provided that participants have opted for their Midpoint Orders to interact with M-ELO+CBs). Thus, the same Holding Period duration that the System sets for a M-ELO+CB in a symbol during Regular Market Hours will also be the length of time that a Midpoint Order must rest on the Continuous Book must rest before it may interact with a M-ELO+CB.

Apart from these impacts of Dynamic Holding Periods, M-ELOs and M-ELO+CBs will continue to behave as they do now in all respects, and as set forth in Rules 4702(b)(14) and (15).

It is important to note that within the parameters discussed herein and in the White Paper, the Exchange will continue to re-train Dynamic M-ELO and M-ELO+CB regularly so that the model will continue to learn from and act upon the basis of new data, and further improve its performance over time. However, the Exchange will not modify the underlying structure of Dynamic M-ELO and M-ELO+CB without first obtaining the Commission's approval to do so, including modifications to the conditions under which the model will adjust the duration of Holding Periods, the frequency with which the model may adjust the Holding Periods, and the range of Holding Period durations available to M-ELOs and M-ELO+CBs.<sup>20</sup>

---

Period. The System will continue to apply the default 12 millisecond Holding Period until the next Change Event where the signal is restored and the System is able to act dynamically again.

<sup>20</sup> In addition to the proposed changes described above, the Exchange proposes to delete an extraneous reference in Rule 4702(b)(15) to M-ELO+CB being eligible to execute against a Midpoint Order on the Continuous Book if the Continuous Book order has the "Midpoint" Trade Now Attribute enabled. In a prior filing, the Exchange folded the concept of "Midpoint Trade Now" into the general "Trade Now" Attribute. See Securities Exchange Act Release No. 34-92180 (June 15, 2021), 86 FR 33420 (June 24, 2021)(SR-NASDAQ-2021-044).

## Implementation

The Exchange intends to make the proposed change effective for M-ELOs and M-ELO+CBs in the Second or Third Quarter of 2023, but that time frame is subject to change. The Exchange will publish a Trader Alert in advance of making the proposed change effective.

### 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>21</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>22</sup> in particular, in that it is designed 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, by allowing for more widespread use of M-ELOs and M-ELO+CBs.

When the Commission approved the M-ELO and the M-ELO+CB, it determined that these Order Types are consistent with the Act because they “could create additional and more efficient trading opportunities on the Exchange for investors with longer investment time horizons, including institutional investors, and could provide these investors with an ability to limit the information leakage and the market impact that could result from their orders.”<sup>23</sup> Nothing about the Exchange’s proposal should cause the Commission to revisit or rethink this determination. Indeed, the proposal will not alter the fundamental design of these Order Types, the manner in which they operate, or their effects.

---

<sup>21</sup> 15 U.S.C. 78f(b).

<sup>22</sup> 15 U.S.C. 78f(b)(5).

<sup>23</sup> M-ELO Approval Order, supra 83 FR at 10938–39; M-ELO+CB Approval Order, supra, 84 FR at 48980.

Even with Dynamic M-ELO Holding Periods, M-ELOs and M-ELO+CBs will continue to provide their users with protection against information leakage and adverse selection – and they will do so at levels which are substantially undiminished from that which they provide now.<sup>24</sup>

At the same time, however, the proposal will benefit market participants and investors by reducing the opportunity costs of utilizing M-ELOs and M-ELO+CBs. The proposal, in other words, will re-calibrate the lengths of the Holding Periods so that M-ELOs and M-ELO+CBs will operate in the “Goldilocks” zone – their Holding Periods will not be so short as to render them unable to provide meaningful protections against information leakage and adverse selection, but the Holding Periods also will not be too long so as to cause participants and investors to miss out on favorable execution opportunities. Nasdaq believes the proposal will render M-ELOs and M-ELO+CBs more useful and attractive to market participants and investors, and this increased utility and attractiveness, in turn, will spur an increase in M-ELO and M-ELO+CB use cases on the Exchange, both from new and existing users of M-ELOs and M-ELO+CBs. Ultimately, the proposal should enhance market quality by increasing opportunities for midpoint executions on the Exchange.

The Exchange notes that use of Dynamic M-ELOs and M-ELO+CBs remains voluntary for all market participants. Accordingly, if any market participant feels that the dynamic Holding Periods are still too long or too short or because competing venues offer more attractive delay mechanisms, then the participants are free to pursue other trading strategies or utilize other trading venues. They need not utilize Dynamic M-ELOs or M-ELO+CBs.

---

<sup>24</sup> See note 6, supra.



Finally, the Exchange notes that it will continue to conduct real-time surveillance to monitor the use of M-ELOs and M-ELO+CBs to ensure that such usage remains appropriately tied to the intent of the Order Types. If, as a result of such surveillance, the Exchange determines that the Dynamic M-ELO Holding Periods do not serve their intended purposes, or adversely impact market quality, then the Exchange will seek to make further re-calibrations.

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 not necessary or appropriate in furtherance of the purposes of the Act. To the contrary, the Exchange believes that this proposal will promote the competitiveness of the Exchange by rendering its M-ELO and M-ELO+CB Order Types more attractive to participants.

The Exchange adopted the M-ELO and M-ELO+CB as pro-competitive measures intended to increase participation on the Exchange by allowing certain market participants that may currently be underserved on regulated exchanges to compete based on elements other than speed. The proposed change continues to achieve this purpose. With Dynamic M-ELO Holding Periods, both M-ELOs and M-ELO+CBs will afford their users with a level of protection from information leakage and adverse selection that is better from what is achievable at present.<sup>25</sup> At the same time, the Dynamic Holding Periods will increase opportunities to interact with other like-minded investors with longer time horizons while also lowering the opportunity costs for participants that utilize M-ELOs and M-ELO+CBs, particularly for securities that trade within the “Goldilocks” zone. In sum, the proposed changes will not burden competition, but instead may promote competition for liquidity in M-ELOs and M-ELO+CBs by broadening the circumstances in which market participants may find such Orders to be useful. With the

---

<sup>25</sup> See White Paper, supra.

proposed changes, market participants will be more likely to determine that the benefits of entering M-ELOs and M-ELO+CBs outweigh the risks of doing so.

The proposed change will not place a burden on competition among market venues, as any market may adopt an order type that operates similarly to a M-ELO or a M-ELO+CB with Dynamic M-ELO Holding Periods.

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

No written comments were either solicited or received.

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 of such date (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 shall: (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 [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NASDAQ-2022-079 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-NASDAQ-2022-079. 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 Web site (<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, DC 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 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-NASDAQ-2022-079 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.<sup>26</sup>

Sherry R. Haywood

Assistant Secretary

---

<sup>26</sup> 17 CFR 200.30-3(a)(12).