

# SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-105596; File No. 4-631]

## Joint Industry Plan; Notice of Filing of the Twenty-Seventh Amendment to the National Market System Plan to Address Extraordinary Market Volatility to Establish Temporary Price Band Protections in Overnight Trading

June 1, 2026.

### I. Introduction

On May 27, 2026, Nasdaq, Inc., on behalf of Nasdaq Texas LLC (“NDTX”), Nasdaq PHLX LLC (“PHLX”), and The Nasdaq Stock Market LLC (“Nasdaq”), and the following parties to the Plan to Address Extraordinary Market Volatility (“Plan”) Pursuant to Rule 608 of Regulation NMS under the Securities Exchange Act of 1934 (“Act” or “Exchange Act”)<sup>1</sup>: 24X National Exchange LLC, Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGA

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<sup>1</sup> See Securities Exchange Act Release No. 67091, 77 FR 33498 (June 6, 2012); Securities Exchange Act Release No. 68953 (February 20, 2013), 78 FR 13113 (Feb. 26, 2013); Securities Exchange Act Release No. 69287 (April 3, 2013), 78 FR 21483 (Apr. 10, 2013); Securities Exchange Act Release No. 70273 (August 27, 2013), 78 FR 54321 (September 3, 2013); Securities Exchange Act Release No. 70530 (September 26, 2013), 78 FR 60937 (October 2, 2013); Securities Exchange Act Release No. 71247 (January 7, 2014), 79 FR 2204 (January 13, 2014); Securities Exchange Act Release No. 71851 (April 3, 2014), 79 FR 19687 (April 9, 2014); Securities Exchange Act Release No. 74323 (February 19, 2015), 80 FR 10169 (February 25, 2015); Securities Exchange Act Release No. 76244 (October 22, 2015), 80 FR 66099 (October 28, 2015); Securities Exchange Act Release No. 77679 (April 21, 2016), 81 FR 24908 (April 27, 2016); Securities Exchange Act Release No. 78703 (August 26, 2016), 81 FR 60397 (September 1, 2016); Securities Exchange Act Release No. 79845 (January 19, 2017), 82 FR 8551 (January 26, 2017); Securities Exchange Act Release No. 80455 (April 13, 2017), 82 FR 18519 (April 19, 2017); Securities Exchange Act Release No. 80549 (April 28, 2017), 82 FR 20928 (May 4, 2017); Securities Exchange Act Release No. 81720 (September 26, 2017), 82 FR 45922 (October 2, 2017); Securities Exchange Act Release No. 82887 (March 15, 2018), 83 FR 12414 (March 21, 2018); Securities Exchange Act Release No. 83044 (April 12, 2018), 83 FR 17205 (April 18, 2018); Securities Exchange Act Release No. 85623 (April 11, 2019), 84 FR 16086 (April 17, 2019); Securities Exchange Act Release No. 88122 (February 5, 2020), 85 FR 7805 (February 11, 2020); Securities Exchange Act Release No. 88704 (April 21, 2020), 85 FR 23383 (April 27, 2020); Securities Exchange Act Release No. 89420 (July 29, 2020), 85 FR 46762 (August 3, 2020); Securities Exchange Act Release No. 90068 (October 1, 2020), 85 FR 63322 (October 7, 2020); Securities Exchange Act Release No. 101036 (September 16, 2024), 89 FR 77203 (September 20, 2024); Securities Exchange Act Release No. 103042 (May 14, 2025), 90 FR 21529 (May 20, 2025); Securities Exchange Act Release No. 103845 (September 3, 2025), 90 FR 43254 (September 8, 2025); Securities Exchange Act Release No. 105443 (May 12, 2026), 91 FR 27995 (May 15, 2026).

Exchange, Inc., Cboe EDGX Exchange, Inc., Financial Industry Regulatory Authority, Inc., Investors Exchange LLC, Long-Term Stock Exchange, Inc., MEMX LLC, MIAX PEARL, LLC, New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., NYSE Texas, Inc., and NYSE National, Inc., (collectively with NDTX, PHLX, and Nasdaq, “Participants”), filed with the Securities and Exchange Commission (“Commission”) pursuant to Section 11A(a)(3) of the Exchange Act<sup>2</sup> and Rule 608 thereunder,<sup>3</sup> a proposal to amend the Plan (“Twenty-Seventh Amendment”).<sup>4</sup> The proposal reflects changes unanimously approved by the Participants. The Twenty-Seventh Amendment proposes to amend the Plan to establish temporary price band protections to overnight trading (“Overnight Protections”) in anticipation of overnight trading by certain national securities exchanges. The Commission is publishing this notice to solicit comments from interested persons on the Twenty-Seventh Amendment.<sup>5</sup>

## II. Description of the Plan

Set forth in this Section II is the statement of the purpose and summary of the Twenty-Seventh Amendment, along with the information required by Rule 608(a)(4) and (5) under the Exchange Act,<sup>6</sup> prepared and submitted by the Participants to the Commission.<sup>7</sup>

### A. Statement of Purpose and Summary of the Plan Amendment

The Participants filed the Plan with the Commission on April 5, 2011, to create a market-wide limit up-limit down mechanism intended to address extraordinary market volatility in NMS

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<sup>2</sup> 15 U.S.C 78k-1(a)(3).

<sup>3</sup> 17 CFR 242.608.

<sup>4</sup> See Letter from Andrew Oppenheimer, Head of U.S. Equities, Nasdaq, to Vanessa Countryman, Secretary, Commission, dated May 27, 2026 (“Transmittal Letter”).

<sup>5</sup> 17 CFR 242.608.

<sup>6</sup> See 17 CFR 242.608(a)(4) and (a)(5).

<sup>7</sup> See Transmittal Letter, supra note 4.

Stocks, as defined in Rule 600(b)(65) of Regulation NMS under the Exchange Act.<sup>8</sup> The Plan sets forth procedures that provide for market-wide limit up-limit down requirements to prevent trades in individual NMS Stocks from occurring outside of the specified Price Bands.<sup>9</sup> These limit up-limit down requirements are coupled with Trading Pauses, as defined in Section I(Y) of the Plan, to accommodate more fundamental price moves. In particular, the Participants adopted this Plan to address extraordinary volatility in the securities markets, *i.e.*, significant fluctuations in individual securities' prices over a short period of time, such as those experienced during the “Flash Crash” on the afternoon of May 6, 2010.

As set forth in more detail in the Plan, all trading centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, are required to establish, maintain, and enforce written policies and procedures that are reasonably designed to comply with the Limit Up-Limit Down requirements specified in the Plan. The Participants believe that the Limit Up-Limit Down mechanism specified in the Plan has reduced the negative impacts of sudden, unanticipated price movements in NMS Stocks (and erroneous trades in such stocks), thereby protecting investors and promoting a fair and orderly market.<sup>10</sup>

The Participants propose a cautious approach to extending protections to the unique conditions presented by overnight markets. The proposal is to be implemented in two phases. In

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<sup>8</sup> 17 CFR 242.600(b)(65).

<sup>9</sup> Unless otherwise stated, capitalized terms are defined in the LULD Plan.

<sup>10</sup> Data collected during the pilot period between the initial filing of the Plan and the approval of the Plan on a permanent basis by the Commission, and studies conducted by the Participants and the Commission's Division of Economic and Risk Analysis demonstrated that the Plan has been beneficial to markets by serving to dampen price volatility, and the Commission approved the Plan on a permanent basis after finding that the LULD mechanism effectively addressed extraordinary market volatility. See Securities Exchange Act Release No. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018); Securities Exchange Act Release No. 85623 (April 11, 2019), 84 FR 16086 (April 17, 2019).

the first phase, the Participants propose to apply protections based on those currently used by certain ATs to constrain significant fluctuations in individual securities' prices over a short period of time. The Participants believe that these protections are narrowly tailored to current market conditions, and will promote market stability over an interim period.

During implementation of this first phase, Participants will gather and analyze information concerning overnight trading, and will use that information to develop recommendations for a final proposal to be implemented in the overnight session. The final proposal will be submitted to the Commission as a plan amendment that will remove the interim measures and replace them with revised overnight protections.

1. Authority to Amend Under Rule 608 of Regulation NMS

The Participants respectfully submit this amendment to the Plan pursuant to Rule 608 of Regulation NMS under the Exchange Act, which authorizes the Participants to act jointly in preparing, filing, and implementing national market system plans. Rule 608(a)(3) specifically provides that any two or more self-regulatory organizations, acting jointly, may file a national market system plan or any amendment thereto with the Commission. The Participants are self-regulatory organizations that are parties to the Plan and have the authority under Rule 608 to propose amendments to the Plan for Commission approval.

Section III(A) of the Plan provides that, except with respect to the addition of new Participants to the Plan, any proposed change in, addition to, or deletion from the Plan shall be effected by means of a written amendment to the Plan that: (1) sets forth the change, addition, or deletion; (2) is executed on behalf of each Participant; and (3) is approved by the SEC pursuant to Rule 608 of Regulation NMS under the Exchange Act, or otherwise becomes effective under Rule 608 of Regulation NMS under the Exchange Act.

Each of the Participants has approved this Twenty-Seventh Amendment in accordance with Section III(C) of the Plan. The Participants also received and incorporated feedback from the Plan Advisory Committee in preparing this proposal.

The Participants believe that this amendment is consistent with Section 11A of the Exchange Act and Rule 608 thereunder. Rule 608 provides that the Commission shall approve a proposed NMS plan, or proposed amendment thereto, if it finds that such plan or amendment is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act; and such plan provides that all brokers and dealers may obtain access to transaction reports and quotations on terms that are not unreasonably discriminatory.<sup>11</sup> Section 11A of the Act establishes the Congressional finding that it is in the public interest and appropriate for the protection of investors and the maintenance of fair and orderly markets to assure economically efficient execution of securities transactions, fair competition among brokers and dealers and exchange markets, and the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities.<sup>12</sup> Consistent with these standards, the proposed amendment would enhance the stability and integrity of the national market system by implementing price band protections during overnight trading sessions, thereby reducing the risk of extraordinary volatility and erroneous trades during periods of reduced liquidity.

## 2. Summary of Proposed Amendment

The Participants propose to add a new Section VIII to the Plan, entitled “Overnight Protections,” which establishes a framework for calculating and disseminating Overnight Price

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<sup>11</sup> 15 U.S.C. 78k-1(a)(1)(C).

<sup>12</sup> 15 U.S.C. 78k-1(a)(1)(C).

Bands for use during Overnight Protected Hours (defined as 9:00 p.m. Eastern Time on Sunday through Thursday to 4:00 a.m. Eastern Time on the next calendar day), and requires all trading centers that are operative during such hours to establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent trades outside of such Overnight Price Bands. In Phase 2 of the proposal, Participants intend to replace the interim Section VIII proposed in this amendment with a more permanent Section VIII to govern overnight trading protections, and expect these protections to more closely resemble the LULD program in place during Regular Trading Hours, for instance by including sliding bands.

The proposed amendment for Phase 1 includes the following key aspects:

(a) Overnight Price Bands. The Primary Listing Exchange for each NMS Stock shall calculate and disseminate to the Processors an Overnight Lower Price Band and an Overnight Upper Price Band to be applied during Overnight Protected Hours for NMS Stocks. The Overnight Price Bands shall be based on two reference prices as adjusted for any relevant corporate actions, (i) the official closing price of a stock as reported by the listing market for such NMS stock and (ii) the consolidated last round lot sale as of 7:45 p.m. Eastern Time, with the Overnight Lower Price Band being 20% lower than the lower of the reference prices, and the Overnight Upper Price Band being 20% greater than the greater of the reference prices; the Overnight Percentage Parameter for a leveraged ETP shall be 20%, multiplied by the leverage ratio. For NMS Stocks with a Closing Price of less than \$1.00, the minimum Overnight Upper Price Band and minimum Overnight Lower Price Band thresholds shall each be \$1.00 from the applicable reference price; for NMS Stocks with a Closing Price of \$1.00 or more, the

minimum Overnight Upper Price Band and minimum Overnight Lower Price Band thresholds shall each be \$3.00 from the applicable reference price. The Minimum Price Band for a leveraged ETP shall be multiplied by the leverage ratio of such product.

(b) Primary Listing Exchanges shall transmit the calculated Overnight Price Bands to the Processors no later than 8:55 p.m. Eastern Time, and the Processors shall disseminate such bands to the public prior to 9:00 p.m. Eastern Time.

(c) All trading centers in NMS Stocks that are operative during Overnight Protected Hours, must establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent both trades and the display of prices outside the Overnight Price Bands during Overnight Protected Hours.

(d) The Primary Listing Exchange of a stock may declare a Regulatory Halt in accordance with Primary Listing Exchange rules, and, if so, shall notify the Processor.<sup>13</sup> During a Regulatory Halt during Overnight Protected Hours, Participants shall reject orders. Any NMS Stock subject to a Regulatory Halt during Overnight Protected Hours shall not reopen during Overnight Protected Hours.

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<sup>13</sup> The Primary Listing Exchanges anticipate using halt codes currently available within the Processors' specifications.

(e) The proposed amendment also amends Section IV of the Plan to require that trading center policies and procedures comply with the overnight requirements specified in the new Section VIII.<sup>14</sup>

*Overnight Protected Hours*

The Participants have determined to implement overnight protections between the hours of 9:00 p.m. and 4:00 a.m. Eastern Time. The 9:00 p.m. Eastern Time commencement of the Overnight Protected Hours corresponds to the time at which the Processors will open for overnight trading, thereby ensuring that the limit up-limit down mechanism is operative from the moment overnight trading activity becomes available through the consolidated market data infrastructure. The 4:00 a.m. Eastern Time conclusion of the Overnight Protected Hours was selected to accommodate the well-established practice of issuers releasing earnings announcements, material corporate disclosures, and other price-sensitive information during pre-market hours in advance of the Regular Trading Session. By terminating Overnight Protected Hours at 4:00 a.m. Eastern Time, the Participants intend for market participants to be able to incorporate newly disclosed information into securities prices without the constraints of pricing bands based on the prior day's activity.

The Participants acknowledge that the application of price bands during Overnight Protected Hours has the potential to inhibit price discovery to some degree, insofar as the bands may constrain the range of prices at which transactions can occur during those hours. However, the Participants believe that this risk does not outweigh the significant investor protections

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<sup>14</sup> Unlike policies at certain ATSS, the proposed amendment does not include guidance regarding how to handle corporate actions during Overnight Protected Hours, as this decision will be left to the discretion of each listing exchange.

afforded by the proposed amendment. In particular, the Participants' analysis<sup>15</sup> indicates that only a minority of NMS stocks would be materially impacted by the presence of price bands during Overnight Protected Hours, suggesting that the constraining effect on price discovery would be limited in scope and would not broadly impair the market's ability to reflect fundamental value. Moreover, to the extent that the price band mechanism may in certain instances restrain price movement during the overnight session, the Participants believe that this trade-off is justified by the protections that the amendment provides against erroneous trades and aberrant executions in a low-liquidity trading environment—protections that serve the interests of investors and the integrity of the national market system. Finally, in a circumstance in which orders are consistently being placed outside the bands or the price bands are otherwise limiting price discovery, Primary Listing Exchanges will be able to declare a Regulatory Halt<sup>16</sup> to suspend trading for the remainder of the overnight session, allowing the market to resume price discovery in the more liquid environment following the end of Overnight Protected Hours.

This calibration of the Overnight Protected Hours appropriately balances the Plan's dual objectives of preventing extraordinary volatility and facilitating price discovery: during the overnight session, when liquidity is reduced and the risk of erroneous trades or transitory gaps in liquidity is heightened, the price band mechanism will prevent trades at prices far removed from a security's recent fundamental value, thereby protecting investors who might otherwise execute transactions at aberrant prices. This is in contrast to the pre-market session, when fundamental corporate information is being disseminated and absorbed by the market, and the price discovery process will be allowed to function without impediment. Accordingly, the Participants believe

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<sup>15</sup> See Section 2 above.

<sup>16</sup> In accordance with Primary Listing Exchange rules.

that the proposed Overnight Protected Hours window removes impediments to, and perfects the mechanism of, the national market system by extending proven investor protections to a trading environment that presents the types of risks that the Plan was designed to address, while preserving the market's capacity to efficiently incorporate material new information during the pre-market period.

#### *Overnight Price Band Calculation*

The Participants have designed the Overnight Price Bands to balance the Plan's dual objectives of preventing extraordinary volatility and facilitating price discovery during overnight trading sessions. The Overnight Price Bands are calculated using two reference prices: the Closing Price and a more recent Consolidated Price representing an execution in the post-market. The use of dual reference prices is designed to mitigate the risks associated with reliance on a single closing price that may become stale or unrepresentative of current market conditions by the time overnight trading commences. Material information is frequently disseminated after the close of the Regular Trading Session, and post-market trading activity may result in prices that differ meaningfully from the Closing Price.

If the Overnight Price Bands were anchored to just one price, the bands could be misaligned with prevailing market sentiment, potentially resulting in price bands that are too restrictive impeding legitimate price discovery based on post-market developments. By incorporating the Consolidated Price, the Overnight Price Bands dynamically account for post-market trading activity, ensuring that the bands reflect a price at which market participants have demonstrated a willingness to transact, which is aligned with ATS practice, while also incorporating the Closing Price to reflect market sentiment during Regular Trading hours. This dual-reference methodology grounds the Overnight Price Bands in demonstrated market

sentiment across both the Regular Trading Session and post-market hours, providing maximum flexibility in the protections while ensuring those protections remain appropriately calibrated to actual market conditions. The Participants believe that this approach is consistent with the protection of investors and the maintenance of fair and orderly markets, and removes impediments to, and perfects the mechanism of, the national market system.

The Participants selected a Percentage Parameter of 20% for Overnight Price Bands to align with the 20% static band protections currently in place for overnight trading on ATSS, while differing from ATS approach by using two reference prices in calculating those bands. Furthermore, the Participants expect that during the initial period of overnight trading hours (commonly referred to as “23/5 trading”), when market participants are adjusting to the new structure, applying the same Percentage Parameters to all stocks in the Overnight trading session will be easier for participants to understand, balancing the interest of protecting investors with ensuring transparent market practices.

The Overnight Price Bands are also subject to minimum price band thresholds<sup>17</sup> to ensure that a minimum range of permissible trading prices remains available during overnight hours. These minimum thresholds prevent the Overnight Price Bands from becoming so narrow as to unduly restrict trading activity or impede legitimate price movements, particularly for lower-priced securities where the application of percentage-based parameters alone could result in price bands of only a few cents. The Participants believe that establishing minimum price band thresholds appropriately balances investor protection against extraordinary volatility with the preservation of fair and orderly markets by ensuring that overnight trading can continue to occur

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<sup>17</sup> For stocks with a Closing Price of \$1.00 or greater, the minimum band is \$3.00, and for stocks with a Closing Price of less than \$1.00, the minimum band size is \$1.00.

within a reasonable price range, consistent with the purposes of Section 11A of the Exchange Act and Rule 608 thereunder.

#### *Primary Listing Exchange and Processor Obligations*

This proposed amendment requires the Primary Listing Exchange of an NMS Stock to calculate the price bands and disseminate them to the Processors, who will then disseminate those bands to the market. This was chosen as the approach in Phase 1 because the Processors are currently testing and implementing extensive updates<sup>18</sup> and the Participants agreed that the most effective way to implement Overnight Protections would be to reduce the burden on the Processors that would have come from calculating the bands themselves. Phase 1 is designed to require minimal work from the Processors. The Processors, however, will then disseminate the bands to the public over trade and quote multicast channels via existing fields in the LULD messages starting at approximately 8:55 p.m. Eastern Time, in line with their current role during Regular Trading Hours.

#### *Overnight Halts*

At this time, the Participants have determined not to implement automatic Trading Pauses during Overnight Protected Hours, similar to ATSS which also do not implement automatic trading pauses during overnight trading sessions (ATSS simply reject orders that fall outside their bands). This approach reflects the Participants' careful consideration of the distinct characteristics of overnight trading, including significantly reduced liquidity, lower trading volumes, and fewer active market participants relative to Regular Trading Hours. During the

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<sup>18</sup> Including to implement 23/5 trading, implement changes to collect and disseminate odd-lot quote information, incorporating fractional share trading information, preparing for amended tick sizes, implementing a new Issue Symbol Directory Message, and transitioning to a new Consolidated Tape Plan. See Securities Exchange Act Release No. 101070 (September 18, 2024), 89 FR 81620 (October 8, 2024), File No. S7-30-22; Securities Exchange Act Release No. 88827 (May 6, 2020), 85 FR 28702 (May 13, 2020).

Regular Trading Session, automatic Trading Pauses serve to provide market participants with a brief opportunity to reassess their trading interest and supply additional liquidity following a significant price movement, after which trading resumes with an auction to facilitate orderly price discovery. Instead of implementing a similar process of automatic Trading Pauses followed by an auction for the Overnight Protected Hours, Primary Listing Exchanges would instead retain discretion to announce Regulatory Halts, in accordance with Primary Listing Exchange rules, during Overnight Protected Hours, which would remain in place for the duration of the overnight trading session. The Participants have elected not to reopen trading halts with auctions during Overnight Protected Hours because they expect that there will be insufficient liquidity in the initial phase of the overnight trading session for an efficient auction to occur. Without confidence in the standard method of reopening trading following a halt, and without sufficient information to create a different method, the Participants believe that it is in the best interests of the market not to reopen trading following a halt in the overnight session.

The Participants believe that permitting the Primary Listing Exchanges to announce Regulatory Halts during Overnight Protected Hours aligns with the Plan's fundamental purpose of promoting a fair and orderly market. Under this framework, the Overnight Price Bands will continue to operate as a safeguard against trades occurring at prices that deviate significantly from a security's recent fundamental value, thereby preventing extraordinary volatility and protecting investors from executing transactions at aberrant prices. When an event occurs that a Primary Listing Exchange, in accordance with Primary Listing Exchange rules, determines merits a Regulatory Halt, the Primary Listing Exchange will have the authority, but not the obligation, to announce a Regulatory Halt if, in its judgment, such action is warranted to maintain a fair and orderly market. This discretionary approach permits the Primary Listing

Exchange to evaluate the totality of the circumstances, including any material information that may be affecting the security's price, and which may also include, in certain circumstances, prevailing liquidity conditions, before determining whether a halt is necessary and appropriate.

The Participants believe this framework is consistent with Section 11A of the Securities Exchange Act of 1934 and Rule 608 thereunder because it preserves the core investor protections of the limit up-limit down mechanism while the Participants analyze data on overnight trading, thereby removing impediments to, and perfecting the mechanism of, the national market system.

#### *Ministerial Amendments*

The Participants have proposed ministerial changes to update the addresses of certain Participants in Section II(A) of the Plan.

The Participants have also proposed a change to the definition of Regular Trading Hours, in Section I(S) to conform to the amended citation in Regulation NMS for the definition of Regular Trading Hours.<sup>19</sup>

### 3. Proposed Overnight Trading Protections Based on Current ATS Protections in Anticipation of 23/5 Exchange Trading

The Commission has recently approved applications by 24X National Exchange LLC, NYSE Arca Inc., and Nasdaq to conduct trading on a near-continuous 23/5 basis.<sup>20</sup> These approvals represent a significant expansion of exchange trading into periods that have historically been

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<sup>19</sup> 17 CFR 242.600(b)(88). See also Securities Exchange Act Release No. 99679 (March 6, 2024), 89 FR 26428 (April 15, 2024).

<sup>20</sup> See Securities Exchange Act Release No. 34-102400 (Feb. 11, 2025); 90 FR 9794 (Feb. 18, 2025) (order approving NYSE Arca Inc. proposal to lengthen its trading session to 22 hours per day, 5 days per week) ("NYSE Arca Approval Order"); Securities Exchange Act. Release No. 89-235 (Nov. 27, 2024); 89 FR 97092 (order approving application of 24X National Exchange, LLC for registration as a national securities exchange and to trade 23 hours per day, 5 days per week) ("24X Approval Order"); Securities Exchange Act Release No. 34- 105199 (April 10, 2026) 91 FR 20222 (April 15, 2026) (SR- NASDAQ-2025-109) ("Nasdaq Approval Order"). The Commission is also contemplating a similar proposal by Cboe EDGX Exchange, Inc. See Securities Exchange Act Release No. 34-105206 (April 10, 2026) 91 FR 20213 (April 15, 2026) (SR-CboeEDGX-2026-019).

characterized by lower liquidity, wider spreads, and the potential for increased price volatility due to the release of overnight news and developments in foreign markets. The Processors are preparing to commence overnight trading on December 6, 2026.<sup>21</sup>

The 20% Percentage Parameter proposed in this amendment reflects the existing price protection mechanisms employed by ATSS that currently operate in the overnight trading space. ATSS that currently facilitate overnight trading have generally adopted 20% trading bands as a market-wide price protection standard, although those bands are based on a single static price,<sup>22</sup> unlike the two reference prices in this proposal.<sup>23</sup> The Participants expect that adopting a band percentage consistent with these established ATS practices will facilitate a smoother transition for market participants as overnight trading expands to national securities exchanges. By aligning the Overnight Price Bands with protections conceptually familiar to broker-dealers, institutional investors, and retail participants who have engaged in overnight trading through ATSS, the proposed amendment reduces operational complexity and minimizes the risk of market disruption that could arise from the introduction of materially different price protection standards. The Participants submit that this alignment serves the public interest and the protection of investors by establishing uniform expectations across trading venues, thereby promoting confidence in the integrity of overnight trading and supporting the orderly expansion of 23/5 trading to the national market system.

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<sup>21</sup> See letter from Jeff Kimsey, Chair of the Operating Committees of the Equity Data Plans, dated March 23, 2026.

<sup>22</sup> See, e.g., Blue Ocean Technologies LLC, *Frequently Asked Questions*, available at <https://blueocean-tech.io/faq/>.

<sup>23</sup> Due to the different approaches of one vs. two reference prices with the same percentage parameters applied, this proposal could result in wider trading bands than those currently used by ATSS, although the current expectation is that using two reference prices will have minimal impact on the bands the majority of the time, while capturing the reality of any extraordinary shifts in the market following the close of Regular Trading Hours.

The Participants believe that the application of protections to these newly approved overnight trading sessions is necessary and appropriate and in the public interest, for the protection of investors and for the maintenance of fair and orderly markets. The fundamental purpose of the Plan—to prevent trades in individual NMS Stocks from occurring at prices that are not reflective of a fair and orderly market—applies with equal, if not greater, force during overnight periods when market conditions may exacerbate the risk of sudden, unanticipated price movements similar to the “Flash Crash.” The LULD mechanism 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. Previously conducted data and analysis have demonstrated that the LULD mechanism has been largely effective at reducing the negative impacts of such price movements,<sup>24</sup> and the Participants believe protections should extend to overnight trading sessions where similar risks—or heightened risks due to reduced liquidity—may arise.

Based on an analysis of data from the ATS Blue Ocean, the Participants expect that the impact of this proposal on actual overnight trading will be minimal, although the guardrails are valuable to the outliers. Using an approximation of the proposed overnight trading bands<sup>25</sup> and the closing price and the price of a stock as of 7:45 p.m. Eastern Time, an average of 0 S&P 500

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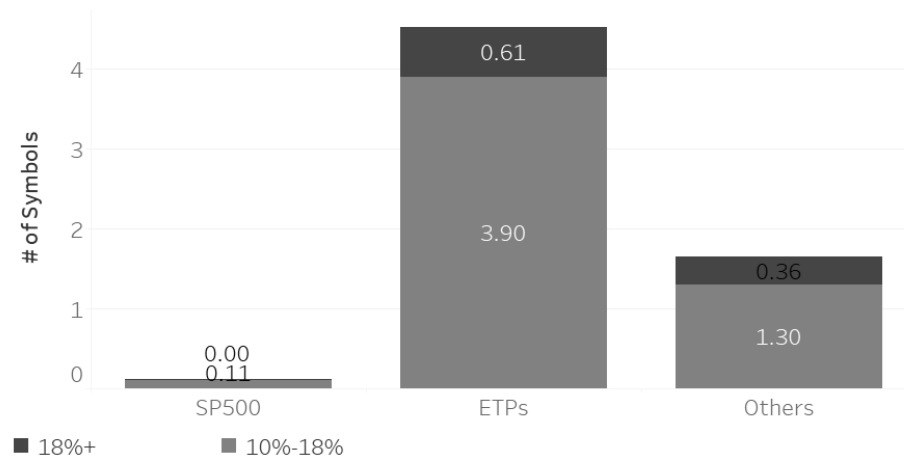
<sup>24</sup> See, e.g., Securities Exchange Act Release No. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018).

<sup>25</sup> Blue Ocean rejects orders that are 20% away from the last sale price for the security printed on a national securities exchange as of 7:30 p.m. ET, so this analysis was conducted using 18% bands as a proxy for orders likely to hit the 20% threshold of the proposed overnight trading bands. The Participants acknowledge that this analysis is unable to capture orders that are currently being cancelled or rejected for falling outside the bands, but believe that if orders were surpassing the bands, there would also be a concentration of orders that approach the bands, and so this 18% approximation should capture and reflect that reality.

stocks, 0.6 ETPs and 0.4 non-S&P 500 stocks per day, or less than 0.1% of total volume, would be impacted by the bands.

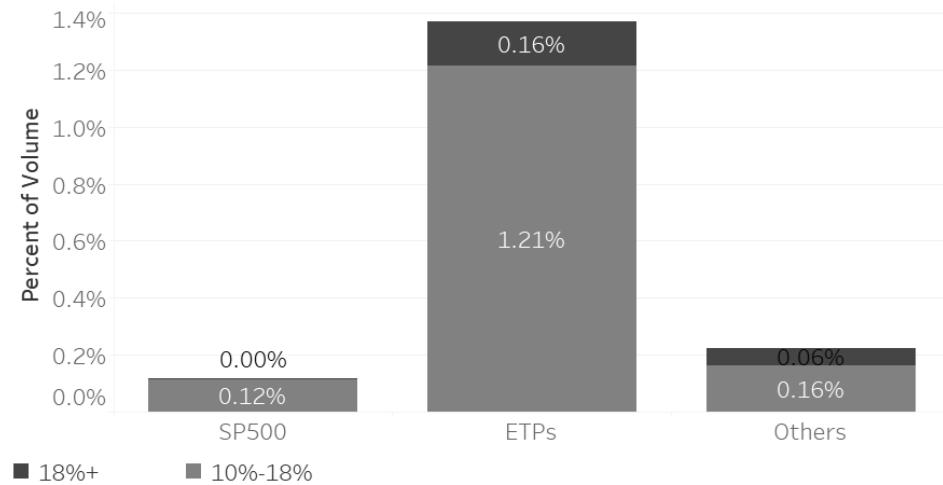
### Average Stock Count by Price Deviation on Blue Ocean

Notes: This chart shows the number of stocks with maximum price deviation between 10-18% and more than 18% relative to the dual benchmarks. Benchmark prices are based on the closing price and the last trade printed on SIP before 8 pm. For stocks priced above \$1, the minimum collar is \$3; for stocks with price below \$1, the minimum price band is \$1. The sample period is between Jan 1, 2025 and Mar 31, 2026 and half trading days are excluded. The sample only include orders executed between 9pm and 4am.



### Distribution of BOATS Volume Relative to Benchmark Prices

Notes: This chart shows the percentage of Blue Ocean's volume executed with price deviations of 10-18% and greater than 18% relative to the dual benchmarks. Benchmark prices are based on the closing price and the last trade printed on SIP before 8 pm. For stocks priced above \$1, the minimum collar is \$3; for stocks with price below \$1, the minimum price band is \$1. The sample period is between Jan 1, 2025 and Mar 31, 2026 and half trading days are excluded. The sample only include orders executed between 9pm and 4am.



Overnight trading sessions present unique challenges for market integrity, including reduced liquidity, increased information asymmetry due to overnight news flow and global

developments, and a heightened potential for erroneous trades. Implementing the proposed market protections during overnight trading sessions should limit the frequency and severity of harmful price dislocations, consistent with the purposes for which the Plan was adopted.

Indeed, the development of price band protections in the overnight trading space illustrates the organic evolution of similar safeguards in response to market need. Before national securities exchanges sought to extend their operating hours into overnight sessions, ATSS pioneered overnight trading and independently implemented price band mechanisms to protect market participants from aberrant executions during periods of reduced liquidity. The adoption of 20% price bands by ATSS operating in this space emerged as a market-driven response to the unique risks presented by overnight trading—demonstrating that sophisticated market participants recognize the necessity of such protections. Market participants who have engaged in overnight trading through ATSS have come to rely on these safeguards. These market participants have a reasonable expectation that comparable protections will accompany the expansion of overnight trading to national securities exchanges, which the Participants believe this proposed amendment will achieve, although with some differences to the ATS approach, including by using two reference prices in order to reflect relevant market activity.

#### 4. Phased Implementation of Overnight Protections

As noted above, the Participants propose to implement Overnight Protections in two phases. The amendments to the Plan set forth herein constitute Phase 1 of this implementation. Phase 2 is anticipated to be implemented in 2027, following a period of observation, data gathering, and assessment of overnight trading. As no national exchange currently conducts trading in the overnight session, comprehensive and reliable data on overnight trading activity remains limited, and the Participants recognize that the provisions of Phase 1 in the proposed

Plan may require recalibration as empirical evidence accumulates. Phase 1 is therefore designed not only to provide meaningful protections against extraordinary volatility during overnight hours, but also to serve as a structured framework for generating the granular, real-world data necessary to evaluate and refine these overnight provisions to craft a thoughtful Phase 2.

The Participants currently expect Phase 2 to include: (1) sliding price bands that adjust based on market activity during Overnight Protected Hours without imposing an absolute limit on prices (e.g., sliding the Upper Price Band to a higher price if a security is in a prolonged limit state where the national best bid is equal to the Overnight Upper Price Band); (2) the Processors calculating and disseminating the Overnight Price Bands, rather than the Primary Listing Exchanges; and (3) recalibrated Overnight Percentage Parameters, which may be lower than the proposed parameters set forth in Section VIII(A)(3) of the Plan and which may differ between Tier 1 and Tier 2 NMS Stocks.

Each of these anticipated Phase 2 enhancements reflects the Participants' recognition that certain provisions in the current proposal—including the initial Overnight Percentage Parameters, the assignment of calculation and dissemination responsibilities, and the static nature of the price bands—may not be optimally calibrated for the unique liquidity and volatility conditions that characterize overnight trading sessions. The Participants believe that the phased approach is the most prudent and responsible means of addressing these challenges, by enabling the Plan and the Commission to collect and analyze data on overnight trading before proceeding to a more complex system of overnight protections.

The Operating Committee intends to evaluate data on overnight trading and the performance of Phase 1 in 2027 and determine the appropriate timing and specifications for Phase 2. In conducting this evaluation, the Operating Committee will analyze, among other

things, the interactions between the market and Overnight Price Bands across varying liquidity conditions, the incidence and causes of any trading halts declared by Listing Exchanges, the adequacy of the Overnight Percentage Parameters in mitigating extraordinary volatility without unduly constraining legitimate price discovery, and the operational performance of the Primary Listing Exchanges in calculating Overnight Price Bands and the Processors in disseminating them. The Participants are committed to a rigorous, evidence-based assessment and intend to work collaboratively with the Commission and its Staff throughout this process to identify additional data points or analytical methodologies that may enhance the evaluation. The Participants expect to include information regarding the operations of Phase 1 in the Plan's quarterly reports, commencing with the quarterly report covering the first full quarter of overnight trading. Participants expect to submit a Phase 2 proposal for consideration by the Commission with sufficient time for implementation by the fourth quarter of 2027. The Participants will report on the evidence gathered on overnight trading together with its proposal for Phase 2 revisions to overnight protections.

Just as the Plan was initially approved on a trial basis<sup>26</sup> to allow the Participants and the public to gain valuable practical experience with Plan operations, and subsequently made permanent following extensive data collection and analysis,<sup>27</sup> the Participants' proposal to implement Overnight Protections in a phased approach will enable the Operating Committee, the Commission, and the market as a whole, to observe overnight trading and the effectiveness of the Overnight Protections and compile data to inform future decisions.

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<sup>26</sup> See Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (File No. 4-631) ("Approval Order").

<sup>27</sup> See Securities Exchange Act Release No. 85623 (April 11, 2019), 84 FR 16086 (April 17, 2019) (File No. 4-631).

The Plan has always operated on the premise that the Participants will engage in a continuous data-intensive review of the National Market System and the Plan's impact on that market. That premise carries particular force here, where the implementation of protections to Overnight Protected Hours presents novel challenges—including thinner liquidity, wider spreads, and the potential for price dislocations driven by international developments or after-hours corporate announcements—that cannot be fully anticipated or addressed through existing data alone. The current provisions of the proposal reflect the Participants' best judgment based on available information, but the Participants recognize that certain parameters and operational assignments may require adjustment once real-world evidence becomes available. The proposed two-phased approach, based on a review of the evidence prior to implementing a final proposal, is consistent with that fundamental approach, and will enable the Operating Committee and the Commission to collaborate to review new information.

The Commission has repeatedly emphasized the importance of ongoing review and assessment to ensure that the Plan continues to achieve its objective of reducing extraordinary volatility. The Participants believe that the same data-driven approach is appropriate for overnight protections, and that the restrained approach of observing the interim effects of this Twenty-Seventh Amendment during new overnight trading hours will enable the Plan to respond to market activity with overnight protections that are effective and specifically tailored to the particular circumstances that present during overnight trading.

#### 5. Consistency with the Purposes of the Plan and the Exchange Act

The Participants believe that the proposed amendment is necessary and appropriate in the public interest, for the protection of investors, and for the maintenance of fair and orderly markets, because extending the protections afforded by the Plan to overnight hours is consistent

with the fundamental purposes of the Plan. The Plan was originally adopted to address extraordinary volatility in the securities markets and to prevent trades in individual NMS Stocks from occurring outside of Price Bands selected to maintain orderly market conditions. These objectives are equally applicable—and may be more critical—during overnight trading sessions when market conditions may be less liquid and more susceptible to price dislocations. The efficacy of current LULD mechanisms in addressing extraordinary market volatility, moreover, informs the Participants’ belief that it is appropriate to also establish price protections in the new overnight trading environment.

The Participants believe that the proposed amendment is consistent with Section 11A(a)(1)(C) of the Exchange Act, which directs the Commission to facilitate the establishment of a national market system that assures, among other things, economically efficient execution of securities transactions, fair competition among brokers and dealers and among markets, and the practicability of brokers executing investors’ orders in the best market.<sup>28</sup> Applying uniform protections across all trading centers that operate during Overnight Protected Hours promotes fair competition and ensures that investor protection does not vary based on the venue at which an order is executed during overnight hours.

This Twenty-Seventh Amendment to the Plan would enhance the public interest, protect investors, and help maintain fair and orderly markets, while removing impediments to and perfecting the mechanism of the national market system in conformance with Rule 608.<sup>29</sup> This proposed amendment establishes guardrails for overnight trading to mitigate the risk of excessive volatility in markets and will help to prevent extreme price swings and erroneous trades, which

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<sup>28</sup> 15 U.S.C. 78k-1(a)(1)(C) and (a)(2).

<sup>29</sup> 17 CFR 242.608(b)(2).

will protect investors from excessive volatility in the new overnight trading session. The amendment appropriately balances the dual objectives of preventing extraordinary volatility and facilitating price discovery, and will thus enhance confidence in the market as a whole by demonstrating the exchange industry's thoughtful approach to implementing new market protections in the new world of 23/5 Trading.

B. Governing or Constituent Documents

The governing documents of the Processor, as defined in Section I(P) of the Plan, will not be affected by the Amendment.

C. Implementation of Amendment

The Participants will announce the operative date of the amendment ("Operative Date"), which will be subject to the completion of certain systems changes by the Processors for the Unlisted Trading Privileges (UTP) Plan and Consolidated Tape Association (CTA) Plan to ensure dissemination of overnight trading bands.

D. Development and Implementation Phases

The Participants propose to implement the proposed amendment on the Operative Date. As discussed, a separate "Phase 2" proposal will be filed with the Commission at a later date. Phase 1 overnight protections will remain in place until the operative date of such Phase 2 proposal.

E. Analysis of Impact on Competition

The Participants believe that the proposed amendment does not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Exchange Act. The proposed amendment to the Plan would apply to all market participants equally and would not impose a competitive burden on one category of market participants in favor of any

other category of market participant. The proposed amendment would apply to trading on all trading centers that operate during Overnight Protected Hours, and all NMS Stocks (other than rights and warrants, which are excluded from the Plan) would be subject to the amended Plan's requirements. The Participants do not believe that the proposed amendment introduces terms that are unreasonably discriminatory for the purposes of Section 11A(c)(1)(D) of the Exchange Act because it would apply to all market participants equally.

F. Written Understanding or Agreements Relating to Interpretation of, or Participation in, Plan

The Participants have no written understandings or agreements relating to interpretation of the Plan. Section II(C) of the Plan sets forth how any entity registered as a national securities exchange or national securities association may become a Participant.

G. Approval of Amendment of the Plan

Each of the Participants has approved this Twenty-Seventh Amendment in accordance with Section III(C) of the Plan. The Participants also received and incorporated feedback from the Plan Advisory Committee in preparing this proposal. Each of the Plan's Participants has executed a written amended Plan.

H. Description of Operation of Facility Contemplated by the Proposed Amendment

Not applicable.

I. Terms and Conditions of Access

Section II(C) of the Plan provides that any entity registered as a national securities exchange or national securities association under the Exchange Act may become a Participant by: (1) becoming a participant in the applicable Market Data Plans, as defined in Section I(F) of the Plan; (2) executing a copy of the Plan, as then in effect; (3) providing each then-current

Participant with a copy of such executed Plan; and (4) effecting an amendment to the Plan as specified in Section III(B) of the Plan.

J. Method of Determination and Imposition, and Amount of, Fees and Charges

This section is not applicable as the proposed amendment to the Plan does not involve fees or charges.

K. Method and Frequency of Processor Evaluation

Not applicable.

L. Dispute Resolution

Section III(C) of the Plan provides that each Participant shall designate an individual to represent the Participant as a member of an Operating Committee. No later than the initial date of the Plan, the Operating Committee shall designate one member of the Operating Committee to act as the Chair of the Operating Committee. Any recommendation for an amendment to the Plan from the Operating Committee that receives an affirmative vote of at least two-thirds of the Participants, but is less than unanimous, shall be submitted to the Commission as a request for an amendment to the Plan initiated by the Commission under Rule 608.

III. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the amendment is consistent with the Exchange Act and the rules thereunder. 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](mailto:rule-comments@sec.gov). Please include file number 4-631 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 4-631. 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 filing will be available for inspection and copying at the principal office of the Exchange. Do not include personal 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 4-631 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.<sup>30</sup>

**Sherry R. Haywood,**

*Assistant Secretary.*

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<sup>30</sup> 17 CFR 200.30-3(a)(85).

**EXHIBIT A**

Proposed new language is double-underlined; proposed deletions are in [~~brackets and  
strikethrough~~]

PLAN TO ADDRESS EXTRAORDINARY MARKET VOLATILITY

SUBMITTED TO

THE SECURITIES AND EXCHANGE COMMISSION

PURSUANT TO RULE 608 OF REGULATION NMS

UNDER THE

SECURITIES EXCHANGE ACT OF 1934

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## Preamble

The Participants submit to the SEC this Plan establishing procedures to address extraordinary volatility in NMS Stocks. The procedures provide for market-wide limit up-limit down requirements that prevent trades in individual NMS Stocks from occurring outside of the specified Price Bands. These limit up-limit down requirements are coupled with Trading Pauses to accommodate more fundamental price moves. The Plan procedures are designed, among other things, to protect investors and promote fair and orderly markets. The Participants developed this Plan pursuant to Rule 608(a)(3) of Regulation NMS under the Exchange Act, which authorizes the Participants to act jointly in preparing, filing, and implementing national market system plans.

I. Definitions

(A) "Eligible Reported Transactions" shall have the meaning prescribed by the Operating Committee and shall generally mean transactions that are eligible to update the last sale price of an NMS Stock.

(B) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(C) "Limit State" shall have the meaning provided in Section VI of the Plan.

(D) "Limit State Quotation" shall have the meaning provided in Section VI of the Plan.

(E) "Lower Price Band" shall have the meaning provided in Section V of the Plan.

(F) "Market Data Plans" shall mean the effective national market system plans through which the Participants act jointly to disseminate consolidated information in compliance with Rule 603(b) of Regulation NMS under the Exchange Act.

(G) "National Best Bid" and "National Best Offer" shall have the meaning provided in Rule 600(b)(42) of Regulation NMS under the Exchange Act.

(H) "NMS Stock" shall have the meaning provided in Rule 600(b)(47) of Regulation NMS under the Exchange Act.

(I) "Opening Price" shall mean the price of a transaction that opens trading on the Primary Listing Exchange. If the Primary Listing Exchange opens with quotations, the "Opening Price" shall mean the closing price of the NMS Stock on the Primary Listing Exchange on the previous trading day, or if no such closing price exists, the last sale on the Primary Listing Exchange.

(J) "Operating Committee" shall have the meaning provided in Section III(C) of the Plan.

(K) "Participant" means a party to the Plan.

(L) "Plan" means the plan set forth in this instrument, as amended from time to time in accordance with its provisions.

(M) "Percentage Parameter" shall mean the percentages for each tier of NMS Stocks set forth in Appendix A of the Plan.

(N) "Price Bands" shall have the meaning provided in Section V of the Plan.

(O) "Primary Listing Exchange" shall mean the Participant on which an NMS Stock is listed. If an NMS Stock is listed on more than one Participant, the Participant on which the NMS Stock has been listed the longest shall be the Primary Listing Exchange.

(P) "Processor" shall mean the single plan processor responsible for the consolidation of information for an NMS Stock pursuant to Rule 603(b) of Regulation NMS under the Exchange Act.

(Q) "Pro-Forma Reference Price" shall have the meaning provided in Section V(A)(2) of the Plan.

(R) "Reference Price" shall have the meaning provided in Section V of the Plan.

(S) "Regular Trading Hours" shall have the meaning provided in Rule 600(b)(~~64~~88) of Regulation NMS under the Exchange Act. For purposes of the Plan, Regular Trading Hours can end earlier than 4:00 p.m. ET in the case of an early scheduled close.

(T) "Regulatory Halt" shall have the meaning specified in the Market Data Plans.

(U) "Reopening Price" shall mean the price of a transaction that reopens trading on the Primary Listing Exchange following a Trading Pause or a Regulatory Halt, or, if the Primary Listing Exchange reopens with quotations, the midpoint of those quotations.

(V) "SEC" shall mean the United States Securities and Exchange Commission.

(W) "Straddle State" shall have the meaning provided in Section VII(A)(2) of the Plan.

(X) "Trading center" shall have the meaning provided in Rule 600(b)(78) of Regulation NMS under the Exchange Act.

(Y) "Trading Pause" shall have the meaning provided in Section VII of the Plan.

(Z) "Upper Price Band" shall have the meaning provided in Section V of the Plan.

## II. Parties

### (A) List of Parties

The parties to the Plan are as follows:

- (1) 24X National Exchange LLC  
One Landmark Square, 18<sup>th</sup> Floor  
Stamford, Connecticut 06901
- (2) Cboe BZX Exchange, Inc.  
400 South LaSalle Street  
Chicago, Illinois 60605
- (3) Cboe BYX Exchange, Inc.  
400 South LaSalle Street  
Chicago, Illinois 60605
- (4) Cboe EDGA Exchange, Inc.  
400 South LaSalle Street  
Chicago, Illinois 60605
- (5) Cboe EDGX Exchange, Inc.  
400 South LaSalle Street  
Chicago, Illinois 60605
- (6) Financial Industry Regulatory Authority, Inc.  
1735 K Street, NW  
Washington, DC 20006
- (7) Investors Exchange LLC  
~~4~~ 3 World Trade Center, ~~44<sup>th</sup>~~ 58<sup>th</sup> Floor  
New York, New York 10007

- (8) Long-Term Stock Exchange, Inc.  
101 Greenwich St., Suite 11A  
New York, NY 10006
- (9) MEMX LLC  
~~1111 Town Square Place, Suite 520~~ 525 Washington Blvd, Suite 300  
Jersey City, NJ 07310
- (10) MIAX Pearl, LLC  
7 Roszel Road, Suite 1A  
Princeton, NJ 08540
- (11) Nasdaq Texas LLC  
One Liberty Plaza  
New York, New York 10006
- (12) Nasdaq PHLX LLC  
1900 Market Street  
Philadelphia, Pennsylvania 19103
- (13) The Nasdaq Stock Market LLC  
1 Liberty Plaza  
165 Broadway  
New York, NY 10006
- (14) NYSE National, Inc.  
11 Wall Street  
New York, NY 10005
- (15) New York Stock Exchange LLC  
11 Wall Street  
New York, New York 10005
- (15) NYSE American LLC  
11 Wall Street  
New York, New York 10005
- (16) NYSE Arca, Inc.  
11 Wall Street  
New York, New York 10005
- (17) NYSE Texas, Inc.  
11 Wall Street  
New York, New York 10005

(B) Compliance Undertaking

By subscribing to and submitting the Plan for approval by the SEC, each Participant agrees to comply with and to enforce compliance, as required by Rule 608(c) of Regulation NMS under the Exchange Act, by its members with the provisions of the Plan. To this end, each Participant shall adopt a rule requiring compliance by its members with the provisions of the Plan, and each Participant shall take such actions as are necessary and appropriate as a participant of the Market Data Plans to cause and enable the Processor for each NMS Stock to fulfill the functions set forth in this Plan.

(C) New Participants

The Participants agree that any entity registered as a national securities exchange or national securities association under the Exchange Act may become a Participant by: (1) becoming a participant in the applicable Market Data Plans; (2) executing a copy of the Plan, as then in effect; (3) providing each then-current Participant with a copy of such executed Plan; and (4) effecting an amendment to the Plan as specified in Section III (B) of the Plan.

(D) Advisory Committee

(1) Formation. Notwithstanding other provisions of this Plan, an Advisory Committee to the Plan shall be formed and shall function in accordance with the provisions set forth in this section.

(2) Composition. Members of the Advisory Committee shall be selected for two-year terms as follows:

(A) Advisory Committee Selections. By affirmative vote of a majority of the Participants, the Participants shall select at least one representatives

from each of the following categories to be members of the Advisory Committee: (1) a broker-dealer with a substantial retail investor customer base; (2) a broker-dealer with a substantial institutional investor customer base; (3) an alternative trading system; (4) a broker-dealer that primarily engages in trading for its own account; and (5) an investor.

(3) Function. Members of the Advisory Committee shall have the right to submit their views to the Operating Committee on Plan matters, prior to a decision by the Operating Committee on such matters. Such matters shall include, but not be limited to, proposed material amendments to the Plan.

(4) Meetings and Information. Members of the Advisory Committee shall have the right to attend meetings of the Operating Committee and to receive any information concerning Plan matters; provided, however, that the Operating Committee may meet in executive session if, by affirmative vote of a majority of the Participants, the Operating Committee determines that an item of Plan business requires confidential treatment.

### III. Amendments to Plan

#### (A) General Amendments

Except with respect to the addition of new Participants to the Plan, any proposed change in, addition to, or deletion from the Plan shall be effected by means of a written amendment to the Plan that: (1) sets forth the change, addition, or deletion; (2) is executed on behalf of each Participant; and, (3) is approved by the SEC pursuant to Rule 608 of Regulation NMS under the Exchange Act, or otherwise becomes effective under Rule 608 of Regulation NMS under the Exchange Act.

(B) New Participants

With respect to new Participants, an amendment to the Plan may be effected by the new national securities exchange or national securities association executing a copy of the Plan, as then in effect (with the only changes being the addition of the new Participant's name in Section II(A) of the Plan) and submitting such executed Plan to the SEC for approval. The amendment shall be effective when it is approved by the SEC in accordance with Rule 608 of Regulation NMS under the Exchange Act or otherwise becomes effective pursuant to Rule 608 of Regulation NMS under the Exchange Act.

(C) Operating Committee

(1) Each Participant shall select from its staff one individual to represent the Participant as a member of an Operating Committee, together with a substitute for such individual. The substitute may participate in deliberations of the Operating Committee and shall be considered a voting member thereof only in the absence of the primary representative. Each Participant shall have one vote on all matters considered by the Operating Committee. No later than the initial date of Plan operations, the Operating Committee shall designate one member of the Operating Committee to act as the Chair of the Operating Committee.

The Operating Committee shall monitor the procedures established pursuant to this Plan and advise the Participants with respect to any deficiencies, problems, or recommendations as the Operating Committee may deem appropriate. The Operating Committee shall establish specifications and procedures for the implementation and operation of the Plan that are consistent with the provisions of this Plan and the

Appendixes thereto. With respect to matters in this paragraph, Operating Committee decisions shall be approved by a simple majority vote.

(2) Any recommendation for an amendment to the Plan from the Operating Committee that receives an affirmative vote of at least two-thirds of the Participants, but is less than unanimous, shall be submitted to the SEC as a request for an amendment to the Plan initiated by the Commission under Rule 608 of Regulation NMS.

IV. Trading Center Policies and Procedures

All trading centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to comply with the limit up - limit down requirements specified in Sections VI and VIII of the Plan, and to comply with the Trading Pauses specified in Section VII of the Plan.

V. Price Bands

(A) Calculation and Dissemination of Price Bands

(1) The Processor for each NMS stock shall calculate and disseminate to the public a Lower Price Band and an Upper Price Band during Regular Trading Hours for such NMS Stock. The Price Bands shall be based on a Reference Price for each NMS Stock that equals the arithmetic mean price of Eligible Reported Transactions for the NMS stock over the immediately preceding five-minute period (except for periods following openings and reopenings, which are addressed below). If no Eligible Reported Transactions for the NMS Stock have occurred over the immediately preceding five-minute period, the previous Reference Price shall remain in effect. The Price Bands for an NMS Stock shall be calculated by applying the Percentage Parameter 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 Price Bands shall be calculated during Regular Trading Hours. Between 3:35 p.m. and 4:00 p.m. ET, or in the case of an early scheduled close, during the last 25 minutes of trading before the early scheduled close, the Price Bands shall be calculated by applying double the Percentage Parameters set forth in Appendix A for (i) all Tier 1 NMS Stocks and (ii) Tier 2 NMS Stocks priced equal to or below \$3.00. If the Processor has not yet disseminated Price Bands, but a Reference Price is available, a trading center may calculate and apply Price Bands based on the same Reference Price that the Processor would use for calculating such Price Bands until such trading center receives Price Bands from the Processor. If, under Section VII(B)(2), the Primary Listing Exchange notifies the Processor that it is unable to reopen an NMS Stock due to a systems or technology issue and it has not declared a Regulatory Halt, the Processor will calculate and disseminate Price Bands by applying triple the Percentage Parameters set forth in Appendix A for the first 30 seconds such Price Bands are disseminated.

(2) The Processor shall calculate a Pro-forma Reference Price on a continuous basis during Regular Trading Hours, as specified in Section V(A)(1) of the Plan. If a Pro-forma Reference Price has not moved by 1% or more from the Reference Price currently in effect, no new Price Bands shall be disseminated, and the current Reference Price shall remain the effective Reference Price. When the Pro-forma Reference Price has moved by 1% or more from the Reference Price currently in effect, the Pro-forma Reference Price shall become the Reference Price, and the

Processor shall disseminate new Price Bands based on the new Reference Price; provided, however, that each new Reference Price shall remain in effect for at least 30 seconds.

(B) Openings

(1) Except when a Regulatory Halt is in effect at the start of Regular Trading Hours, the first Reference Price for a trading day shall be the Opening Price on the Primary Listing Exchange in an NMS Stock if such Opening Price occurs less than five minutes after the start of Regular Trading Hours.

During the period less than five minutes after the Opening Price, a Pro-Forma Reference Price shall be updated on a continuous basis to be the arithmetic mean price of Eligible Reported Transactions for the NMS Stock during the period following the Opening Price (including the Opening Price), and if it differs from the current Reference Price by 1% or more shall become the new Reference Price, except that a new Reference Price shall remain in effect for at least 30 seconds. Subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

(2) If the Opening Price on the Primary Listing Exchange in an NMS Stock does not occur within five minutes after the start of Regular Trading Hours, the first Reference Price for a trading day shall be the arithmetic mean price of Eligible Reported Transactions for the NMS Stock over the preceding five minute time period, and subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

(C) Reopenings

(1) Following a Trading Pause in an NMS Stock, and if the Primary Listing Exchange has not declared a Regulatory Halt, if the Primary Listing Exchange reopens trading with a transaction or quotation that does not include a zero bid or zero offer, the next Reference Price shall be the Reopening Price on the Primary Listing Exchange. Subsequent Reference Prices shall be determined in the manner prescribed for normal openings, as specified in Section V(B)(1) of the Plan. If the Primary Listing Exchange notifies the Processor that it is unable to reopen an NMS Stock due to a systems or technology issue, or if the Primary Listing Exchange reopens trading with a quotation that has a zero bid or zero offer, or both, the next Reference Price shall be the last effective Price Band that was in a Limit State before the Trading Pause. Subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

(2) Following a Regulatory Halt, the next Reference Price shall be the Opening or Reopening Price on the Primary Listing Exchange if such Opening or Reopening Price occurs within five minutes after the end of the Regulatory Halt, and subsequent Reference Prices shall be determined in the manner prescribed for normal openings, as specified in Section V(B)(1) of the Plan. If such Opening or Reopening Price has not occurred within five minutes after the end of the Regulatory Halt, the Reference Price shall be equal to the arithmetic mean price of Eligible Reported Transactions for the NMS Stock over the preceding five minute time period, and subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

VI. Limit Up-Limit Down Requirements

(A) Limitations on Trades and Quotations Outside of Price Bands

(1) All trading centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent trades at prices that are below the Lower Price Band or above the Upper Price Band for an NMS Stock. Single-priced opening, reopening, and closing transactions on the Primary Listing Exchange, however, shall be excluded from this limitation. In addition, any transaction that both (i) does not update the last sale price (except if solely because the transaction was reported late or because the transaction was an odd-lot sized transaction), and (ii) is excepted or exempt from Rule 611 under Regulation NMS shall be excluded from this limitation.

(2) 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. When a National Best Offer is equal to the Lower Price Band or a National Best Bid is equal to the Upper Price Band for an NMS Stock, the Processor shall distribute such National Best Bid or National Best Offer with an appropriate flag identifying it as a "Limit State Quotation".

(3) All trading centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent the display of offers below the Lower Price Band and bids above the Upper Price Band for an NMS

Stock. The Processor shall disseminate an offer below the Lower Price Band or bid above the Upper Price Band that may be submitted despite such reasonable policies and procedures, but with an appropriate flag identifying it as non-executable; provided, however, that any such bid or offer shall not be included in National Best Bid or National Best Offer calculations.

(B) Entering and Exiting a Limit State

(1) All trading for an NMS Stock shall immediately enter a Limit State if the National Best Offer equals the Lower Price Band and does not cross the National Best Bid, or the National Best Bid equals the Upper Price Band and does not cross the National Best Offer.

(2) When trading for an NMS Stock enters a Limit State, the Processor shall disseminate this information by identifying the relevant quotation (i.e., a National Best Offer that equals the Lower Price Band or a National Best Bid that equals the Upper Price Band) as a Limit State Quotation. At this point, the Processor shall cease calculating and disseminating updated Reference Prices and Price Bands for the NMS Stock until either trading exits the Limit State or trading resumes with an opening or re-opening as provided in Section V.

(3) Trading for an NMS Stock shall exit a Limit State if, within 15 seconds of entering the Limit State, the entire size of all Limit State Quotations are executed or cancelled.

(4) If trading for an NMS Stock exits a Limit State within 15 seconds of entry, the Processor shall immediately calculate and disseminate updated Price Bands based on a Reference Price that equals the arithmetic mean price of Eligible Reported Transactions

for the NMS Stock over the immediately preceding five-minute period (including the period of the Limit State).

(5) If trading for an NMS Stock does not exit a Limit State within 15 seconds of entry, the Limit State will terminate when the Primary Listing Exchange declares a Trading Pause pursuant to Section VII of the Plan or at the end of Regular Trading Hours.

## VII. Trading Pauses

### (A) Declaration of Trading Pauses

(1) If trading for an NMS Stock does not exit a Limit State within 15 seconds of entry during Regular Trading Hours, then the Primary Listing Exchange shall declare a Trading Pause for such NMS Stock and shall notify the Processor.

(2) The Primary Listing Exchange may also declare a Trading Pause for an NMS Stock when an NMS Stock is in a Straddle State, which is when National Best Bid (Offer) is below (above) the Lower (Upper) Price Band and the NMS Stock is not in a Limit State, and trading in that NMS Stock deviates from normal trading characteristics such that declaring a Trading Pause would support the Plan's goal to address extraordinary market volatility. The Primary Listing Exchange shall develop policies and procedures for determining when it would declare a Trading Pause in such circumstances. If a Trading Pause is declared for an NMS Stock under this provision, the Primary Listing Exchange shall notify the Processor.

(3) The Processor shall disseminate Trading Pause information to the public. No trades in an NMS Stock shall occur during a Trading Pause, but all bids and offers may be displayed.

(B) Reopening of Trading During Regular Trading Hours

(1) Five minutes after declaring a Trading Pause for an NMS Stock, and if the Primary Listing Exchange has not declared a Regulatory Halt, the Primary Listing Exchange shall attempt to reopen trading using its established reopening procedures. The Processor will publish the following information that the Primary Listing Exchange provides to the Processor in connection with such reopening: auction reference price; auction collars; and number of extensions to the reopening auction. The Trading Pause shall end when the Primary Listing Exchange reports a Reopening Price.

(2) The Primary Listing Exchange shall notify the Processor if it is unable to reopen trading in an NMS Stock due to a systems or technology issue and if it has not declared a Regulatory Halt. The Processor shall disseminate this information to the public.

(3) Trading centers may not resume trading in an NMS Stock following a Trading Pause without Price Bands in such NMS Stock.

(4) The Processor shall update the Price Bands as set forth in Section V(C)(1) - (2) of the Plan after receiving notification from the Primary Listing Exchange of a Reopening Price following a Trading Pause (or a resume message in the case of a reopening quote that has a zero bid or zero offer, or both) or that it is unable to reopen trading following a Trading Pause due to a systems or technology issue, provided that if the Primary Listing Exchange is unable to reopen due to a systems or technology issue, the update to the Price Bands will be no earlier than ten minutes after the beginning of the Trading Pause.

(C) Trading Pauses Within Ten Minutes of the End of Regular Trading Hours

(1) If an NMS Stock is in a Trading Pause during the last ten minutes of trading before the end of Regular Trading Hours, the Primary Listing Exchange shall not reopen trading and shall attempt to execute a closing transaction using its established closing procedures. All trading centers may begin trading the NMS Stock when the Primary Listing Exchange executes a closing transaction.

(2) If the Primary Listing Exchange does not execute a closing transaction within five minutes after the end of Regular Trading Hours, all trading centers may begin trading the NMS Stock.

VIII. Overnight Protections

(A) For the purposes of this section VIII, the following definitions shall apply:

(1) “Closing Price” of an NMS Stock shall mean the Listing Market Official Closing Price of an NMS Stock, adjusted for relevant corporate actions.

(2) “Consolidated Price” shall mean the consolidated last round lot sale price of an NMS Stock as of 7:45 p.m., Eastern Time, adjusted for relevant corporate actions.

(3) “Overnight Percentage Parameter” shall mean 20% for both Tier 1 and Tier 2 NMS Stocks and non-leveraged ETPs; the Overnight Percentage Parameters for a leveraged ETP shall be 20%, multiplied by the leverage ratio of such product.

(4) “Overnight Price Bands” shall have the meaning provided in Section VIII(B)(1) of the Plan.

(5) “Overnight Protected Hours” will begin at 9:00 p.m. Eastern Time on Sunday through Thursday and conclude at 4:00 a.m. Eastern Time on the next calendar day.

(6) “Overnight Reference Prices” shall mean the two reference prices used for calculating Overnight Price Bands: (i) the Closing Price; and (ii) the Consolidated Price.

Any term not defined in this Section VIII(A) shall have the meaning assigned to it in Section I.

(B) Overnight Price Bands

(1) The Primary Listing Exchange for each NMS Stock shall calculate and disseminate to the Processors an Overnight Lower Price Band and an Overnight Upper Price Band (each as defined below) to be disseminated by the Processors and applied during Overnight Protected Hours for such NMS Stock. The Overnight Price Bands for an NMS Stock shall be calculated by applying the Overnight Percentage Parameter for such NMS Stock to the Overnight Reference Prices. The Overnight Lower Price Band shall be an Overnight Percentage Parameter below the lower of the two Overnight Reference Prices, and the Overnight Upper Price Band shall be an Overnight Percentage Parameter above the higher of the two Overnight Reference Prices.

(2) Minimum Price Bands. For any NMS Stock with a Closing Price of less than \$1.00, the minimum Overnight Upper Price Band and the minimum Overnight Lower Price Band shall each be \$1.00 from the applicable Overnight Reference Price. For any NMS Stock with a Closing Price of \$1.00 or more, the minimum Overnight Upper Price Band and the minimum Overnight Lower Price Band shall each be \$3.00 from the applicable Overnight Reference Price. The Minimum Price Band for a leveraged ETP shall be multiplied by the leverage ratio of such product.

(3) The Primary Listing Exchange for each NMS Stock shall be responsible for determining the Overnight Reference Prices and calculating the Overnight Price

Bands. Each Primary Listing Exchange shall transmit the calculated Overnight Price Bands to the Processors no later than 8:55 p.m. Eastern Time.

(4) The Processors shall disseminate to the public the Overnight Price Bands provided by the Primary Listing Exchange prior to 9:00 p.m. Eastern Time.

(C) All trading centers in NMS Stocks that are operative during Overnight Protected Hours, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent trades at prices that are below the Overnight Lower Price Band or above the Overnight Upper Price Band for an NMS Stock during Overnight Protected Hours.

(D) During the Overnight Protected Hours, the Primary Listing Exchange for an NMS Stock may declare a Regulatory Halt, in accordance with Primary Listing Exchange rules. In the event the Primary Listing Exchange declares a Regulatory Halt it shall notify the Processor, which shall disseminate notice of the halt. Once a Regulatory Halt is declared, trading in such NMS stock will not reopen during Overnight Protected Hours.

#### ~~VIII~~. Implementation

The initial date of Plan operations shall be April 8, 2013. Overnight Protections, as described in Section VIII, are expected to commence on December 6, 2026.

#### ~~IX~~. Withdrawal from Plan

If a Participant obtains SEC approval to withdraw from the Plan, such Participant may withdraw from the Plan at any time on not less than 30 days' prior written notice to each of the other Participants. At such time, the withdrawing Participant shall have no further rights or obligations under the Plan.

XI. Counterparts and Signatures

The Plan may be executed in any number of counterparts, no one of which need contain all signatures of all Participants, and as many of such counterparts as shall together contain all such signatures shall constitute one and the same instrument.

IN WITNESS THEREOF, this Plan has been executed as of the \_\_\_ day of \_\_\_\_\_ 2026 by each of the parties hereto.

24X NATIONAL EXCHANGE  
LLC

BY: \_\_\_\_\_

CBOE BYX EXCHANGE, INC

BY: \_\_\_\_\_

CBOE EDGX EXCHANGE, INC.

BY: \_\_\_\_\_

INVESTORS EXCHANGE LLC

BY: \_\_\_\_\_

MEMX LLC

BY: \_\_\_\_\_

CBOE BZX EXCHANGE, INC.

BY: \_\_\_\_\_

CBOE EDGA EXCHANGE, INC.

BY: \_\_\_\_\_

FINANCIAL INDUSTRY  
REGULATORY AUTHORITY, INC.

BY: \_\_\_\_\_

LONG-TERM STOCK  
EXCHANGE, INC.

BY: \_\_\_\_\_

MIAX PEARL, LLC

BY: \_\_\_\_\_

NASDAQ TEXAS LLC

BY: \_\_\_\_\_

THE NASDAQ STOCK MARKET  
LLC

BY: \_\_\_\_\_

NEW YORK STOCK EXCHANGE  
LLC

BY: \_\_\_\_\_

NYSE ARCA, INC.

BY: \_\_\_\_\_

NASDAQ PHLX LLC

BY: \_\_\_\_\_

NYSE NATIONAL, INC.

BY: \_\_\_\_\_

NYSE AMERICAN LLC

BY: \_\_\_\_\_

NYSE TEXAS, INC.

BY: \_\_\_\_\_

## Appendix A - Percentage Parameters

### I. Tier 1 NMS Stocks

(1) Tier 1 NMS Stocks shall include all NMS Stocks included in the S&P 500 Index and the Russell 1000 Index, and the exchange-traded products ("ETP") identified as Schedule 1 to this Appendix. Schedule 1 to the Appendix will be reviewed and updated semi-annually based on the fiscal year by the Primary Listing Exchange to add ETPs that meet the criteria, or delete ETPs that are no longer eligible. To determine eligibility for an ETP to be included as a Tier 1 NMS Stock, all ETPs across multiple asset classes and issuers, including domestic equity, international equity, fixed income, currency, and commodities and futures will be identified. Leveraged ETPs will be excluded and the list will be sorted by notional consolidated average daily volume ("CADY"). The period used to measure CADY will be from the first day of the previous fiscal half year up until one week before the beginning of the next fiscal half year. Daily volumes will be multiplied by closing prices and then averaged over the period. ETPs, including inverse ETPs, that trade over \$2,000,000 CADY will be eligible to be included as a Tier 1 NMS Stock. The semi-annual updates to Schedule 1 do not require an amendment to the Plan. The Primary Listing Exchanges will maintain the updated Schedule 1 on their respective websites.

(2) The Percentage Parameters for Tier 1 NMS Stocks with a Reference Price more than \$3.00 shall be 5%.

(3) The Percentage Parameters for Tier 1 NMS Stocks with a Reference Price equal to \$0.75 and up to and including \$3.00 shall be 20%.

(4) The Percentage Parameters for Tier 1 NMS Stocks with a Reference Price less than \$0.75 shall be the lesser of (a) \$0.15 or (b) 75%.

(5) The Reference Price used for determining which Percentage Parameter shall be applicable during a trading day shall be based on the closing price of the NMS Stock on the Primary

Listing Exchange on the previous trading day, or if no closing price exists, the last sale on the Primary Listing Exchange reported by the Processor.

II. Tier 2 NMS Stocks

(1) Tier 2 NMS Stocks shall include all NMS Stocks other than those in Tier 1, provided, however, that all rights and warrants are excluded from the Plan.

(2) The Percentage Parameters for Tier 2 NMS Stocks with a Reference Price more than \$3.00 shall be 10%.

(3) The Percentage Parameters for Tier 2 NMS Stocks with a Reference Price equal to \$0.75 and up to and including \$3.00 shall be 20%.

(4) The Percentage Parameters for Tier 2 NMS Stocks with a Reference Price less than \$0.75 shall be the lesser of (a) \$0.15 or (b) 75%.

(5) Notwithstanding the foregoing, the Percentage Parameters for a Tier 2 NMS Stock that is a leveraged ETP shall be the applicable Percentage Parameter set forth in clauses (2), (3), or (4) above, multiplied by the leverage ratio of such product.

(6) The Reference Price used for determining which Percentage Parameter shall be applicable during a trading day shall be based on the closing price of the NMS Stock on the Primary Listing Exchange on the previous trading day, or if no closing price exists, the last sale on the Primary Listing Exchange reported by the Processor.

Appendix A - Schedule 1 (as  
of January 2, 2020)

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
SPY	SPDR S&P 500 ETF Trust	NYSE Arca
QQQ	Invesco QQQ Trust	NASDAQ
IWM	iShares Russell 2000 ETF	NYSE Arca
EEM	iShares MSCI Emerging Markets ETF	NYSE Arca
GDX	VanEck Vectors Gold Miners ETF	NYSE Arca
HYG	iShares iBoxx \$ High Yield Corporate Bond ETF	NYSE Arca
EFA	iShares MSCI EAFE ETF	NYSE Arca
TLT	iShares 20+ Year Treasury Bond ETF	NASDAQ
GLD	SPDR Gold Trust	NYSE Arca
XLF	Financial Select Sector SPDR Fund	NYSE Arca
LQD	iShares iBoxx \$ Investment Grade Corporate Bond ETF	NYSE Arca
IVV	iShares Core S&P 500 ETF	NYSE Arca
XLU	Utilities Select Sector SPDR Fund	NYSE Arca
EWZ	iShares MSCI Brazil ETF	NYSE Arca
FXI	iShares China Large-Cap ETF	NYSE Arca
XLE	Energy Select Sector SPDR Fund	NYSE Arca
XLK	Technology Select Sector SPDR Fund	NYSE Arca
XLV	Health Care Select Sector SPDR Fund	NYSE Arca
VXX	iPath Series B S&P 500 VIX Short-Term Futures ETN	CboeBZX
XLI	Industrial Select Sector SPDR Fund	NYSE Arca
XLP	Consumer Staples Select Sector SPDR Fund	NYSE Arca
DIA	SPDR Dow Jones Industrial Average ETF Trust	NYSE Arca
VOO	Vanguard S&P 500 ETF	NYSE Arca
IEMG	iShares Core MSCI Emerging Markets ETF	NYSE Arca
IYR	iShares U.S. Real Estate ETF	NYSE Arca
GDXJ	VanEck Vectors Junior Gold Miners ETF	NYSE Arca
JNK	SPDR Bloomberg Barclays High Yield Bond ETF	NYSE Arca
XOP	SPDR S&P Oil & Gas Exploration & Production ETF	NYSE Arca
SMH	VanEck Vectors Semiconductor ETF	NASDAQ
IEF	iShares 7-10 Year Treasury Bond ETF	NASDAQ
VWO	Vanguard FTSE Emerging Markets ETF	NYSE Arca
IEFA	iShares Core MSCI EAFE ETF	CboeBZX
AGG	iShares Core U.S. Aggregate Bond ETF	NYSE Arca
VNQ	Vanguard Real Estate ETF	NYSE Arca
EMB	iShares JP Morgan USO Emerging Markets Bond ETF	NASDAQ
XLY	Consumer Discretionary Select Sector SPDR Fund	NYSE Arca
VTI	Vanguard Total Stock Market ETF	NYSE Arca
XBI	SPDR S&P BIOTECH ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
EWJ	iShares MSCI Japan ETF	NYSE Arca
MDY	SPDR S&P Midcap 400 ETF Trust	NYSE Arca
VEA	Vanguard FTSE Developed Markets ETF	NYSE Arca
XLB	Materials Select Sector SPDR Fund	NYSE Arca
KRE	SPDR S&P Regional Banking ETF	NYSE Arca
SLV	iShares Silver Trust	NYSE Arca
USO	United States Oil Fund LP	NYSE Arca
IAU	iShares Gold Trust	NYSE Arca
USMV	iShares Edge MSCI Min Vol USA ETF	CboeBZX
IBB	iShares NASDAQ Biotechnology ETF	NASDAQ
BND	Vanguard Total Bond Market ETF	NASDAQ
IJR	iShares Core S&P Small Cap ETF	NYSE Arca
SHV	iShares Short Treasury Bond ETF	NASDAQ
IWD	iShares Russell 1000 Value ETF	NYSE Arca
SPLV	Invesco S&P 500 Low Volatility ETF	NYSE Arca
IWF	iShares Russell 1000 Growth ETF	NYSE Arca
XRT	SPDR S&P Retail ETF	NYSE Arca
EWY	iShares MSCI South Korea ETF	NYSE Arca
MCHI	iShares MSCI China ETF	NASDAQ
ACWI	iShares MSCI ACWI ETF	NASDAQ
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	NASDAQ
AMLP	Alerian MLP ETF	NYSE Arca
SHY	iShares 1-3 Year Treasury Bond ETF	NASDAQ
VGK	Vanguard FTSE Europe ETF	NYSE Arca
BIL	SPDR Bloomberg Barclays 1-3 Month T-Bill ETF	NYSE Arca
EZU	iShares MSCI Eurozone ETF	CboeBZX
IJH	iShares Core S&P Mid-Cap ETF	NYSE Arca
XLRE	Real Estate Select Sector SPDR Fund	NYSE Arca
XLC	Communication Services Select Sector SPDR Fund	NYSE Arca
IWB	iShares Russell 1000 ETF	NYSE Arca
EWT	iShares MSCI Taiwan ETF	NYSE Arca
TIP	iShares TIPS Bond ETF	NYSE Arca
MTUM	iShares Edge MSCI USA Momentum Factor ETF	CboeBZX
RSX	VanEck Vectors Russia ETF	CboeBZX
VTV	Vanguard Value ETF	NYSE Arca
INDA	iShares MSCI India ETF	CboeBZX
PFF	iShares Preferred & Income Securities ETF	NASDAQ
EWH	iShares MSCI Hong Kong ETF	NYSE Arca
VT	Vanguard Total World Stock ETF	NYSE Arca

MBB	iShares MBS ETF	NASDAQ
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<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
IGV	iShares Expanded Tech-Software Sector ETF	CboeBZX
BSV	Vanguard Short-Term Bond ETF	NYSE Arca
SVXY	ProShares Short VIX Short-Term Futures ETF	NYSE Arca
BKLN	Invesco Senior Loan ETF	NYSE Arca
VIG	Vanguard Dividend Appreciation ETF	NYSE Arca
OIH	VanEck Vectors Oil Services ETF	NYSE Arca
EWV	iShares MSCI Mexico ETF	NYSE Arca
VEU	Vanguard FTSE All-World ex-US Index Fund	NYSE Arca
VCSH	Vanguard Short-Term Corporate Bond ETF	NASDAQ
SH	ProShares Short S&P500	NYSE Arca
IEI	iShares 3-7 Year Treasury Bond ETF	NASDAQ
GOVT	iShares U.S. Treasury Bond ETF	CboeBZX
SOXX	iShares PHLX Semiconductor ETF	NASDAQ
VGT	Vanguard Information Technology ETF	NYSE Arca
BNDX	Vanguard Total International Bond ETF	NASDAQ
ASHR	Xtrackers Harvest CST 300 China A-Shares ETF	NYSE Arca
ITOT	iShares Core S&P Total U.S. Stock Market ETF	NYSE Arca
IWO	iShares Russell 2000 Growth ETF	NYSE Arca
VUG	Vanguard Growth ETF	NYSE Arca
JPST	JPMorgan Ultra-Short Income ETF	CboeBZX
IWN	iShares Russell 2000 Value ETF	NYSE Arca
MINT	PIMCO Enhanced Short Maturity Active ETF	NYSE Arca
VYM	Vanguard High Dividend Yield Index ETF	NYSE Arca
ITB	iShares U.S. Home Construction ETF	CboeBZX
FEZ	SPDR EURO STOXX 50 ETF	NYSE Arca
QUAL	iShares Edge MSCI USA Quality Factor ETF	CboeBZX
EWG	iShares MSCI Germany ETF	NYSE Arca
MUB	iShares National Muni Bond ETF	NYSE Arca
IVE	iShares S&P 500 Value ETF	NYSE Arca
SCHF	Schwab International Equity ETF	NYSE Arca
VXUS	Vanguard Total International Stock ETF	NASDAQ
XHB	SPDR S&P Homebuilders ETF	NYSE Arca
AAXJ	iShares MSCI All Country Asia ex Japan ETF	NASDAQ
EWU	iShares MSCI United Kingdom ETF	NYSE Arca
IVW	iShares S&P 500 Growth ETF	NYSE Arca
KBE	SPDR S&P Bank ETF	NYSE Arca
VO	Vanguard Mid-Cap ETF	NYSE Arca
VB	Vanguard Small-Cap ETF	NYSE Arca

EMLC	VanEck Vectors J.P. Morgan EM Local Currency Bond ETF	NYSE Arca
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<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
SCHX	Schwab U.S. Large-Cap ETF	NYSE Arca
IGSB	iShares Short-Term Corporate Bond ETF	NASDAQ
ACWX	iShares MSCI ACWI ex U.S. ETF	NASDAQ
PSQ	ProShares Short QQQ	NYSE Arca
FLOT	iShares Floating Rate Bond ETF	CboeBZX
IGIB	iShares Intermediate-Term Corporate Bond ETF	NASDAQ
SJNK	SPDR Bloomberg Barclays Short Term High Yield Bond ETF	NYSE Arca
UNG	United States Natural Gas Fund LP	NYSE Arca
XME	SPDR S&P Metals & Mining ETF	NYSE Arca
BIV	Vanguard Intermediate-Term Bond ETF	NYSE Arca
NEAR	iShares Short Maturity Bond ETF	CboeBZX
DXJ	WisdomTree Japan Hedged Equity Fund	NYSE Arca
VIXY	ProShares VIX Short-Term Futures ETF	NYSE Arca
KWEB	KraneShares CSI China Internet ETF	NYSE Arca
IWR	iShares Russell Midcap ETF	NYSE Arca
EFAV	iShares Edge MSCI Min Vol EAFE ETF	CboeBZX
EWC	iShares MSCI Canada ETF	NYSE Arca
IXUS	iShares Core MSCI Total International Stock ETF	NASDAQ
EWA	iShares MSCI Australia ETF	NYSE Arca
RSP	Invesco S&P 500 Equal Weight ETF	NYSE Arca
DGRO	iShares Core Dividend Growth ETF	NYSE Arca
FDN	First Trust Dow Jones Internet Index Fund	NYSE Arca
SCZ	iShares MSCI EAFE Small-Cap ETF	NASDAQ
SCHB	Schwab U.S. Broad Market ETF	NYSE Arca
DVY	iShares Select Dividend ETF	NASDAQ
SDY	SPDR S&P Dividend ETF	NYSE Arca
IHI	iShares U.S. Medical Devices ETF	NYSE Arca
OEF	iShares S&P 100 ETF	NYSE Arca
SPIB	SPDR Portfolio Intermediate Term Corporate Bond ETF	NYSE Arca
IWS	iShares Russell Mid-Cap Value ETF	NYSE Arca
AMJ	J.P. Morgan Alerian MLP Index ETN	NYSE Arca
SCHO	Schwab Short-Term US Treasury ETF	NYSE Arca
FTSM	First Trust Enhanced Short Maturity ETF	NASDAQ
SPYG	SPDR Portfolio S&P 500 Growth ETF	NYSE Arca
SPAB	SPDR Portfolio Aggregate Bond ETF	NYSE Arca
VCLT	Vanguard Long-Term Corporate Bond ETF	NASDAQ
SCHD	Schwab US Dividend Equity ETF	NYSE Arca

EWL	iShares MSCI Switzerland ETF	NYSE Arca
IWV	iShares Russell 3000 ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
VXF	Vanguard Extended Market ETF	NYSE Arca
FVD	First Trust Value Line Dividend Index Fund	NYSE Arca
IYT	iShares Transportation Average ETF	CboeBZX
EWQ	iShares MSCI France ETF	NYSE Arca
VMBS	Vanguard Mortgage-Backed Securities ETF	NASDAQ
ILF	iShares Latin America 40 ETF	NYSE Arca
SPTL	SPDR Portfolio Long Term Treasury ETF	NYSE Arca
BLY	Vanguard Long-Term Bond ETF	NYSE Arca
VBR	Vanguard Small Cap Value ETF	NYSE Arca
VLUE	iShares Edge MSCI USA Value Factor ETF	CboeBZX
EPI	WisdomTree India Earnings Fund	NYSE Arca
VFH	Vanguard Financials ETF	NYSE Arca
VGSH	Vanguard Short-Term Treasury ETF	NASDAQ
SCHP	Schwab US TIPS ETF	NYSE Arca
USIG	iShares Broad USD Investment Grade Corporate Bond ETF	NASDAQ
IWP	iShares Russell Mid-Cap Growth ETF	NYSE Arca
ITA	iShares U.S. Aerospace & Defense ETF	CboeBZX
SCHG	Schwab U.S. Large-Cap Growth ETF	NYSE Arca
PCY	Invesco Emerging Markets Sovereign Debt ETF	NYSE Arca
IUSG	iShares Core <b>S&amp;P</b> U.S. Growth ETF	NASDAQ
SPSB	SPDR Portfolio Short Term Corporate Bond ETF	NYSE Arca
VTEB	Vanguard Tax-Exempt Bond ETF	NYSE Arca
SPYV	SPDR Portfolio S&P 500 Value ETF	NYSE Arca
GSLC	Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF	NYSE Arca
CWB	SPDR Bloomberg Barclays Convertible Securities ETF	NYSE Arca
VTIP	Vanguard Short-Term Inflation-Protected Securities ETF	NASDAQ
HYLB	Xtrackers USD High Yield Corporate Bond ETF	NYSE Arca
FLRN	SPDR Bloomberg Barclays Investment Grade Floating Rate ETF	NYSE Arca
SPEM	SPDR Portfolio Emerging Markets ETF	NYSE Arca
VHT	Vanguard Health Care ETF	NYSE Arca
PGX	Invesco Preferred ETF	NYSE Arca
EEMV	iShares Edge MSCI Min Vol Emerging Markets ETF	CboeBZX
SPDW	SPDR Portfolio Developed World ex-US ETF	NYSE Arca
NOBL	ProShares S&P 500 Dividend Aristocrats ETF	CboeBZX
HDV	iShares Core High Dividend ETF	NYSE Arca
EWP	iShares MSCI Spain ETF	NYSE Arca

SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	NYSE Arca
VBK	Vanguard Small-Cap Growth ETF	NYSE Arca
IUSV	iShares Core S&P US Value ETF	NASDAQ

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
SCHE	Schwab Emerging Markets Equity ETF	NYSE Arca
VGLT	Vanguard Long-Term Treasury ETF	NASDAQ
SCHH	Schwab U.S. REIT ETF	NYSE Arca
SPLG	SPDR Portfolio Large Cap ETF	NYSE Arca
IEUR	iShares Core MSCI Europe ETF	NYSE Arca
VV	Vanguard Large-Cap ETF	NYSE Arca
ACWV	iShares Edge MSCI Min Vol Global ETF	CboeBZX
SCHY	Schwab U.S. Large-Cap Value ETF	NYSE Arca
EFV	iShares MSCI EAFE Value ETF	CboeBZX
VPL	Vanguard FTSE Pacific ETF	NYSE Arca
US	iShares S&P Small-Cap 600 Value ETF	NYSE Arca
VOE	Vanguard Mid-Cap Value ETF	NYSE Arca
SCHZ	Schwab US Aggregate Bond ETF	NYSE Arca
VDE	Vanguard Energy ETF	NYSE Arca
DBEF	Xtrackers MSCI EAFE Hedged Equity ETF	NYSE Arca
EWI	iShares MSCI Italy ETF	NYSE Arca
GBIL	Goldman Sachs Access Treasury 0-1 Year ETF	NYSE Arca
ICSH	iShares Ultra Short-Term Bond ETF	CboeBZX
FPE	First Trust Preferred Securities & Income ETF	NYSE Arca
SCHA	Schwab U.S. Small-Cap ETF	NYSE Arca
HYD	VanEck Vectors High-Yield Municipal Index ETF	CboeBZX
EDY	Vanguard Extended Duration Treasury ETF	NYSE Arca
HEDJ	WisdomTree Europe Hedged Equity Fund	NYSE Arca
VPU	Vanguard Utilities ETF	NYSE Arca
EZA	iShares MSCI South Africa ETF	NYSE Arca
HYS	PIMCO 0-5 Year High Yield Corporate Bond Index ETF	NYSE Arca
VGIT	Vanguard Intermediate-Term Treasury ETF	NASDAQ
LMBS	First Trust Low Duration Opportunities ETF	NASDAQ
SCHR	Schwab Intermediate-Term US Treasury ETF	NYSE Arca
GSY	Invesco Ultra Short Duration ETF	NYSE Arca
EPP	iShares MSCI Pacific ex-Japan ETF	NYSE Arca
FBT	First Trust NYSE Arca Biotechnology Index Fund	NYSE Arca
IYF	iShares U.S. Financials ETF	NYSE Arca
IYW	iShares U.S. Technology ETF	NYSE Arca
SRLN	SPDR Blackstone / GSO Senior Loan ETF	NYSE Arca

VNQI	Vanguard Global ex-U.S. Real Estate ETF	NASDAQ
USRY	iShares Broad USD High Yield Corporate Bond ETF	CboeBZX
IDV	iShares International Select Dividend ETF	CboeBZX
<b>MGK</b>	Vanguard Mega Cap Growth ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
TLH	iShares 10-20 Year Treasury Bond ETF	NYSE Arca
SPHD	Invesco S&P 500 High Dividend Low Volatility ETF	NYSE Arca
VTWO	Vanguard Russell 2000 ETF	NASDAQ
USFR	WisdomTree Floating Rate Treasury Fund	NYSE Arca
VOT	Vanguard Mid-Cap Growth ETF	NYSE Arca
KSA	iShares MSCI Saudi Arabia ETF	NYSE Arca
PDBC	Invesco Optimum Yield Diversified Commodity Strategy No K-1 ETF	NASDAQ
IGLB	iShares Long-Term Corporate Bond ETF	NYSE Arca
SCHM	Schwab U.S. Mid-Cap ETF	NYSE Arca
ISTB	iShares Core 1-5 Year USD Bond ETF	NASDAQ
<b>IJK</b>	iShares S&P Mid-Cap 400 Growth ETF	NYSE Arca
GLDM	SPDR Gold MiniShares Trust	NYSE Arca
DOG	ProShares Short Dow30	NYSE Arca
KBWB	Invesco KBW Bank ETF	NASDAQ
EUFN	iShares MSCI Europe Financials ETF	NASDAQ
EIDO	iShares MSCI Indonesia ETF	NYSE Arca
XAR	SPDR S&P Aerospace & Defense ETF	NYSE Arca
RWM	ProShares Short Russell2000	NYSE Arca
<b>BOND</b>	PIMCO Active Bond ETF	NYSE Arca
VDC	Vanguard Consumer Staples ETF	NYSE Arca
UUP	Invesco DB US Dollar Index Bullish Fund	NYSE Arca
SPTI	SPDR Portfolio Intermediate Term Treasury ETF	NYSE Arca
FXE	Invesco CurrencyShares Euro Trust	NYSE Arca
VSS	Vanguard FTSE All-World ex-US Small-Cap ETF	NYSE Arca
EFG	iShares MSCI EAFE Growth ETF	CboeBZX
FXO	First Trust Financials AlphaDEX Fund	NYSE Arca
XMLV	Invesco S&P MidCap Low Volatility ETF	NYSE Arca
FTEC	Fidelity MSCI Information Technology Index ETF	NYSE Arca
SPYD	SPDR Portfolio S&P 500 High Dividend ETF	NYSE Arca
QTEC	First Trust NASDAQ-100 Technology Sector Index Fund	NASDAQ
<b>THD</b>	iShares MSCI Thailand ETF	NYSE Arca
MOAT	VanEck Vectors Morningstar Wide Moat ETF	CboeBZX
EWM	iShares MSCI Malaysia ETF	NYSE Arca

RWR	SPDR Dow Jones REIT ETF	NYSE Arca
BNO	United States Brent Oil Fund LP	NYSE Arca
FTCS	First Trust Capital Strength ETF	NASDAQ
DBC	Invesco DB Commodity Index Tracking Fund	NYSE Arca
TOTL	SPDR DoubleLine Total Return Tactical ETF	NYSE Arca
EWS	iShares MSCI Singapore ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
PTLC	Pacer Trendpilot US Large Cap ETF	CboeBZX
SPTS	SPDR Portfolio Short Term Treasury ETF	NYSE Arca
GUNR	FlexShares Morningstar Global Upstream Natural Resources Index Fund	NYSE Arca
PRF	Invesco FTSE RAFI US 1000 ETF	NYSE Arca
ECH	iShares MSCI Chile ETF	CboeBZX
SPTM	SPDR Portfolio Total Stock Market ETF	NYSE Arca
MJ	ETFMG Alternative Harvest ETF	NYSE Arca
IYE	iShares U.S. Energy ETF	NYSE Arca
VOX	Vanguard Communication Services ETF	NYSE Arca
UT	iShares S&P Small-Cap 600 Growth ETF	NASDAQ
IPAY	ETFMG Prime Mobile Payments ETF	NYSE Arca
RWX	SPDR Dow Jones International Real Estate ETF	NYSE Arca
FNDX	Schwab Fundamental US Large Co. Index ETF	NYSE Arca
IAGG	iShares Core International Aggregate Bond ETF	CboeBZX
ANGL	VanEck Vectors Fallen Angel High Yield Bond ETF	NASDAQ
IEV	iShares Europe ETF	NYSE Arca
VOOG	Vanguard S&P 500 Growth ETF	NYSE Arca
FLCB	Franklin Liberty U.S. Core Bond ETF	NYSE Arca
IJJ	iShares S&P Mid-Cap 400 Value ETF	NYSE Arca
IUSB	iShares Core Total USD Bond Market ETF	NASDAQ
TBF	Proshares Short 20+ Year Treasury	NYSE Arca
BBEU	JPMorgan BetaBuilders Europe ETF	CboeBZX
SPSM	SPDR Portfolio Small Cap ETF	NYSE Arca
SIZE	iShares Edge MSCI USA Size Factor ETF	NYSE Arca
SHM	SPDR Nuveen Bloomberg Barclays Short Term Municipal Bond ETF	NYSE Arca
TUR	iShares MSCI Turkey ETF	NASDAQ
RODM	Hartford Multifactor Developed Markets (ex-US) ETF	NYSE Arca
BBJP	JPMorgan BetaBuilders Japan ETF	CboeBZX
MLPI	ETRACS Alerian MLP Infrastructure Index ETN	NYSE Arca
IXN	iShares Global Tech ETF	NYSE Arca
LGLV	SPDR SSGA US Large Cap Low Volatility Index ETF	NYSE Arca

FNDF	Schwab Fundamental International Large Co. Index ETF	NYSE Arca
SGOL	Aberdeen Standard Physical Gold Shares ETF	NYSE Arca
IGOV	iShares International Treasury Bond ETF	NASDAQ
FIXD	First Trust TCW Opportunistic Fixed Income ETF	NASDAQ
EWD	iShares MSCI Sweden ETF	NYSE Arca
ICF	iShares Cohen & Steers REIT ETF	CboeBZX
VIS	Vanguard Industrials ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
MDYV	SPDR S&P 400 Mid Cap Value ETF	NYSE Arca
SPHQ	Invesco S&P 500 Quality ETF	NYSE Arca
SKYY	First Trust Cloud Computing ETF	NASDAQ
IGF	iShares Global Infrastructure ETF	NASDAQ
REM	iShares Mortgage Real Estate ETF	CboeBZX
BOTZ	Global X Robotics & Artificial Intelligence ETF	NASDAQ
FXL	First Trust Technology AlphaDEX Fund	NYSE Arca
EMLP	First Trust North American Energy Infrastructure Fund	NYSE Arca
SUB	iShares Short-Term National Muni Bond ETF	NYSE Arca
SPLB	SPDR Portfolio Long Term Corporate Bond ETF	NYSE Arca
HEWJ	iShares Currency Hedged MSCI Japan ETF	NYSE Arca
VONG	Vanguard Russell 1000 Growth ETF	NASDAQ
IYG	iShares US Financial Services ETF	NYSE Arca
IYZ	iShares U.S. Telecommunications ETF	CboeBZX
VCR	Vanguard Consumer Discretionary ETF	NYSE Arca
DGS	WisdomTree Emerging Markets SmallCap Dividend Fund	NYSE Arca
XES	SPDR S&P Oil & Gas Equipment & Services ETF	NYSE Arca
IHF	iShares U.S. Healthcare Providers ETF	NYSE Arca
VWOB	Vanguard Emerging Markets Government Bond ETF	NASDAQ
XSLV	Invesco S&P SmallCap Low Volatility ETF	NYSE Arca
HEZU	iShares Currency Hedged MSCI Eurozone ETF	NYSE Arca
ONEQ	Fidelity Nasdaq Composite Index Tracking Stock	NASDAQ
PULS	PGIM Ultra Short Bond ETF	NYSE Arca
ARKK	ARK Innovation ETF	NYSE Arca
SLYV	SPDR S&P 600 Small Cap Value ETF	NYSE Arca
DGRW	WisdomTree US Quality Dividend Growth Fund	NASDAQ
FNDE	Schwab Fundamental Emerging Markets Large Co. Index ETF	NYSE Arca
KIE	SPDR S&P Insurance ETF	NYSE Arca
USRT	iShares Core U.S. REIT ETF	NYSE Arca
IYH	iShares U.S. Healthcare ETF	NYSE Arca
RPV	Invesco S&P 500 Pure Value ETF	NYSE Arca
DEM	WisdomTree Emerging Markets High Dividend Fund	NYSE Arca

HEFA	iShares Currency Hedged MSCI EAFE ETF	CboeBZX
XSD	SPDR S&P Semiconductor ETF	NYSE Arca
IXC	iShares Global Energy ETF	NYSE Arca
MLPA	Global X MLP ETF	NYSE Arca
ERUS	iShares MSCI Russia ETF	NYSE Arca
SIL	Global X Silver Miners ETF	NYSE Arca
DON	WisdomTree U.S. MidCap Dividend Fund	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
VNLA	Janus Henderson Short Duration Income ETF	NYSE Arca
AGGY	WisdomTree Yield Enhanced U.S. Aggregate Bond Fund	NYSE Arca
SPMD	SPDR Portfolio Mid Cap ETF	NYSE Arca
RPG	Invesco S&P 500 Pure Growth ETF	NYSE Arca
BBRE	JPMorgan BetaBuilders MSCI U.S. REIT ETF	CboeBZX
STIP	iShares 0-5 Year TIPS Bond ETF	NYSE Arca
FTSL	First Trust Senior Loan Fund	NASDAQ
PHYS	Sprott Physical Gold Trust	NYSE Arca
GXC	SPDR S&P China ETF	NYSE Arca
PPLT	Aberdeen Standard Physical Platinum Shares ETF	NYSE Arca
FXB	Invesco CurrencyShares British Pound Sterling Trust	NYSE Arca
TFI	<b>SPDR</b> Nuveen Bloomberg Barclays Municipal Bond ETF	NYSE Arca
GVI	iShares Intermediate Government/Credit Bond ETF	CboeBZX
MLPX	Global X MLP & Energy Infrastructure ETF	NYSE Arca
IXJ	iShares Global Healthcare ETF	NYSE Arca
ESGD	iShares ESG MSCI EAFE ETF	NASDAQ
FNDA	Schwab Fundamental US Small Co. Index ETF	NYSE Arca
CEF	Sprott Physical Gold and Silver Trust	NYSE Arca
SLQD	iShares 0-5 Year Investment Grade Corporate Bond ETF	NASDAQ
LEMB	iShares J.P. Morgan EM Local Currency Bond ETF	NYSE Arca
IYC	iShares U.S. Consumer Services ETF	NYSE Arca
FMB	First Trust Managed Municipal ETF	NASDAQ
PDP	Invesco DWA Momentum ETF	NASDAQ
HYLS	First Trust Tactical High Yield ETF	NASDAQ
DBEU	Xtrackers MSCI Europe Hedged Equity ETF	NYSE Arca
IDEV	iShares Core MSCI International Developed Markets ETF	NYSE Arca
REET	iShares Global REIT ETF	NYSE Arca
RYT	Invesco S&P 500 Equal Weight Technology ETF	NYSE Arca
HYMB	SPDR Nuveen Bloomberg Barclays High Yield Municipal Bond ETF	NYSE Arca
MGC	Vanguard Mega Cap ETF	NYSE Arca

IDU	iShares U.S. Utilities ETF	NYSE Arca
JPIN	J.P. Morgan Diversified Return International Equity ETF	NYSE Arca
XLG	Invesco S&P 500 Top 50 ETF	NYSE Arca
SLYG	SPDR S&P 600 Small Cap Growth ETF	NYSE Arca
SCHC	Schwab International Small-Cap Equity ETF	NYSE Arca
RWO	SPDR Dow Jones Global Real Estate ETF	NYSE Arca
VIOO	Vanguard S&P Small-Cap 600 ETF	NYSE Arca
VRP	Invesco Variable Rate Preferred ETF	NYSE Arca
FXY	Invesco Currencyshares Japanese Yen Trust	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
RDIV	Invesco S&P Ultra Dividend Revenue ETF	NYSE Arca
PXH	Invesco FTSE RAFI Emerging Markets ETF	NYSE Arca
MGV	Vanguard Mega Cap Value ETF	NYSE Arca
CORP	PIMCO Investment Grade Corporate Bond Index ETF	NYSE Arca
VAW	Vanguard Materials ETF	NYSE Arca
EWN	iShares MSCI Netherlands ETF	NYSE Arca
BWX	SPDR Bloomberg Barclays International Treasury Bond ETF	NYSE Arca
EUM	ProShares Short MSCI Emerging Markets	NYSE Arca
QYLD	Global X NASDAQ 100 Covered Call ETF	NASDAQ
PGF	Invesco Financial Preferred ETF	NYSE Arca
FREL	Fidelity MSCI Real Estate Index ETF	NYSE Arca
IGM	iShares Expanded Tech Sector ETF	NYSE Arca
IAT	iShares U.S. Regional Banks ETF	NYSE Arca
TAN	Invesco Solar ETF	NYSE Arca
VONV	Vanguard Russell 1000 Value ETF	NASDAQ
FUTY	Fidelity MSCI Utilities Index ETF	NYSE Arca
KBA	KraneShares Bosera MSCI China A Share ETF	NYSE Arca
PRFZ	Invesco FTSE RAFI US 1500 Small-Mid ETF	NASDAQ
FBND	Fidelity Total Bond ETF	NYSE Arca
FXH	First Trust Health Care AlphaDEX Fund	NYSE Arca
PSK	SPDR Wells Fargo Preferred Stock ETF	NYSE Arca
IQLT	iShares Edge MSCI Intl Quality Factor ETF	NYSE Arca
EPHE	iShares MSCI Philippines ETF	NYSE Arca
ITM	VanEck Vectors AMT-Free Intermediate Municipal Index ETF	CboeBZX
GSIE	Goldman Sachs ActiveBeta International Equity ETF	NYSE Arca
DLN	WisdomTree U.S. LargeCap Dividend Fund	NYSE Arca
HACK	ETFMG Prime Cyber Security ETF	NYSE Arca
DJP	iPath Bloomberg Commodity Index Total Return ETN	NYSE Arca
FHLC	Fidelity MSCI Health Care Index ETF	NYSE Arca
DBJP	Xtrackers MSCI Japan Hedged Equity ETF	NYSE Arca

URTH	iShares MSCI World ETF	NYSE Arca
VYMI	Vanguard International High Dividend Yield ETF	NASDAQ
FDT	First Trust Developed Markets ex-US AlphaDEX Fund	NASDAQ
BSCL	Invesco BulletShares 2021 Corporate Bond ETF	NASDAQ
FXU	First Trust Utilities AlphaDEX Fund	NYSE Arca
BSCK	Invesco BulletShares 2020 Corporate Bond ETF	NASDAQ
IYJ	iShares U.S. Industrials ETF	CboeBZX
AGZ	iShares Agency Bond ETF	NYSE Arca
INTF	iShares Edge MSCI Multifactor Intl ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
SPMB	SPDR Portfolio Mortgage Backed Bond ETF	NYSE Arca
GSG	iShares S&P GSCI Commodity Indexed Trust	NYSE Arca
PSJ	Invesco Dynamic Software ETF	NYSE Arca
SDIV	Global X Superdividend ETF	NYSE Arca
VIGI	Vanguard International Dividend Appreciation ETF	NASDAQ
RING	iShares MSCI Global Gold Miners ETF	NASDAQ
CWI	SPDR MSCI ACWI ex-US ETF	NYSE Arca
IWY	iShares Russell Top 200 Growth ETF	NYSE Arca
ESGU	iShares ESG MSCI USA ETF	NASDAQ
ZROZ	PIMCO 25+ Year Zero Coupon US Treasury Index ETF	NYSE Arca
SPIP	SPDR Portfolio TIPS ETF	NYSE Arca
FNCL	Fidelity MSCI Financials Index ETF	NYSE Arca
ESGE	iShares ESG MSCI EM ETF	NASDAQ
BAB	Invesco Taxable Municipal Bond ETF	NYSE Arca
PZA	Invesco National AMT-Free Municipal Bond ETF	NYSE Arca
MDYG	SPDR S&P 400 Mid Cap Growth ETF	NYSE Arca
RDVY	First Trust Rising Dividend Achievers ETF	NASDAQ
DSI	iShares MSCI KLD 400 Social ETF	NYSE Arca
BSCM	Invesco BulletShares 2022 Corporate Bond ETF	NASDAQ
IXG	iShares Global Financials ETF	NYSE Arca
CIBR	First Trust NASDAQ Cybersecurity ETF	NASDAQ
JHMM	John Hancock Multifactor Mid Cap ETF	NYSE Arca
FCG	First Trust Natural Gas ETF	NYSE Arca
PHB	Invesco Fundamental High Yield Corporate Bond ETF	NYSE Arca
FV	First Trust Dorsey Wright Focus 5 ETF	NASDAQ
BSJL	Invesco Bulletshares 2021 High Yield Corporate Bond ETF	NASDAQ
FNDC	Schwab Fundamental International Small Co. Index ETF	NYSE Arca
DVYE	iShares Emerging Markets Dividend ETF	NYSE Arca
DES	WisdomTree U.S. SmallCap Dividend Fund	NYSE Arca

VONE	Vanguard Russell 1000 ETF	NASDAQ
GNR	SPDR S&P Global Natural Resources ETF	NYSE Arca
FPX	First Trust US Equity Opportunities ETF	NYSE Arca
BSJK	Invesco BulletShares 2020 High Yield Corporate Bond ETF	NASDAQ
PSLV	Sprott Physical Silver Trust	NYSE Arca
SUSA	iShares MSCI USA ESG Select ETF	NYSE Arca
AOM	iShares Core Moderate Allocation ETF	NYSE Arca
IEO	iShares U.S. Oil & Gas Exploration & Production ETF	CboeBZX
XMMO	Invesco S&P MidCap Momentum ETF	NYSE Arca
PPA	Invesco Aerospace & Defense ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
NUSI	Nationwide Risk-Managed Income ETF	NYSE Arca
COMT	iShares Commodities Select Strategy ETF	NASDAQ
PDEC	Innovator S&P 500 Power Buffer ETF - December	CboeBZX
EBND	SPDR Bloomberg Barclays Emerging Markets Local Bond ETF	NYSE Arca
CMF	iShares California Muni Bond ETF	NYSE Arca
VOOV	Vanguard S&P 500 Value ETF	NYSE Arca
IGE	iShares North American Natural Resources ETF	CboeBZX
FDL	First Trust Morningstar Dividend Leaders Index Fund	NYSE Arca
PXF	Invesco FTSE RAFI Developed Markets ex-U.S. ETF	NYSE Arca
PFFD	Global X U.S. Preferred ETF	CboeBZX
ROBO	ROBO Global Robotics & Automation Index ETF	NYSE Arca
IBDL	iShares iBonds Dec 2020 Term Corporate ETF	NYSE Arca
IDLY	Invesco S&P International Developed Low Volatility ETF	NYSE Arca
FFTY	Innovator IBD 50 ETF	NYSE Arca
SPHB	Invesco S&P 500 High Beta ETF	NYSE Arca
DLS	WisdomTree International SmallCap Dividend Fund	NYSE Arca
LRGF	iShares Edge MSCI Multifactor USA ETF	NYSE Arca
SDOG	ALPS Sector Dividend Dogs ETF	NYSE Arca
QQEW	First Trust Nasdaq-100 Equal Weighted Index Fund	NASDAQ
CQQQ	Invesco China Technology ETF	NYSE Arca
EPOL	iShares MSCI Poland ETF	NYSE Arca
REZ	iShares Residential Real Estate ETF	NYSE Arca
DBA	Invesco DB Agriculture Fund	NYSE Arca
ARKW	ARK Next Generation Internet ETF	NYSE Arca
FSTA	Fidelity MSCI Consumer Staples Index ETF	NYSE Arca
JXI	iShares Global Utilities ETF	NYSE Arca
AOR	iShares Core Growth Allocation ETF	NYSE Arca
MOO	VanEck Vectors Agribusiness ETF	NYSE Arca

IBDM	iShares iBonds Dec 2021 Term Corporate ETF	NYSE Arca
GREK	Global X MSCI Greece ETF	NYSE Arca
PKW	Invesco Buyback Achievers ETF	NASDAQ
QUS	SPDR MSCI USA StrategicFactors ETF	NYSE Arca
XT	iShares Exponential Technologies ETF	NASDAQ
PALL	Aberdeen Standard Physical Palladium Shares ETF	NYSE Arca
GEM	Goldman Sachs ActiveBeta Emerging Markets Equity ETF	NYSE Arca
BBCA	JPMorgan BetaBuilders Canada ETF	CboeBZX
ESGV	Vanguard ESG U.S. Stock ETF	CboeBZX
INDY	iShares India 50 ETF	NASDAQ
FEX	First Trust Large Cap Core AlphaDEX Fund	NASDAQ

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
MNA	IQ Merger Arbitrage ETF	NYSE Arca
NFRA	FlexShares STOXX Global Broad Infrastructure Index Fund	NYSE Arca
RPAR	RPAR Risk Parity ETF	NYSE Arca
EWX	SPDR S&P Emerging Markets Small Cap ETF	NYSE Arca
BSJM	Invesco BulletShares 2022 High Yield Corporate Bond ETF	NASDAQ
FEM	First Trust Emerging Markets AlphaDEX Fund	NASDAQ
PTF	Invesco DWA Technology Momentum ETF	NASDAQ
ARKG	ARK Genomic Revolution ETF	CboeBZX
JKH	iShares Morningstar Mid-Cap Growth ETF	NYSE Arca
GBF	iShares Government/Credit Bond ETF	NYSE Arca
SILJ	ETFMG Prime Junior Silver Miners ETF	NYSE Arca
SLY	SPDR S&P 600 Small Cap ETF	NYSE Arca
FTC	First Trust Large Cap Growth AlphaDEX Fund	NASDAQ
FTA	First Trust Large Cap Value AlphaDEX Fund	NASDAQ
QDF	FlexShares Quality Dividend Index Fund	NYSE Arca
IBDN	iShares iBonds Dec 2022 Term Corporate ETF	NYSE Arca
JPUS	JPMorgan Diversified Return U.S. Equity ETF	NYSE Arca
AMZA	InfraCap MLP ETF	NYSE Arca
IBDO	iShares iBonds Dec 2023 Term Corporate ETF	NYSE Arca
SRET	Global X SuperDividend REIT ETF	NASDAQ
VNM	VanEck Vectors Vietnam ETF	CboeBZX
BSCN	Invesco Bulletshares 2023 Corporate Bond ETF	NASDAQ
USSG	Xtrackers MSCI USA ESG Leaders Equity ETF	NYSE Arca
EMRY	iShares Emerging Markets High Yield Bond ETF	CboeBZX
IPAC	iShares Core MSCI Pacific ETF	NYSE Arca
RYU	Invesco S&P 500 Equal Weight Utilities ETF	NYSE Arca
BSCO	Invesco BulletShares 2024 Corporate Bond ETF	NASDAQ

PWV	Invesco Dynamic Large Cap Value ETF	NYSE Arca
ICLN	iShares Global Clean Energy ETF	NASDAQ
SMMV	iShares Edge MSCI Min Vol USA Small-Cap ETF	CboeBZX
FLCO	Franklin Liberty Investment Grade Corporate ETF	NYSE Arca
CLOU	Global X Cloud Computing ETF	NASDAQ
PLW	Invesco 1-30 Laddered Treasury ETF	NASDAQ
100	iShares Global 100 ETF	NYSE Arca
PPH	VanEck Vectors Pharmaceutical ETF	NASDAQ
SPGP	Invesco S&P 500 GARP ETF	NYSE Arca
FINX	Global X FinTech ETF	NASDAQ
KXI	iShares Global Consumer Staples ETF	NYSE Arca
RHS	Invesco S&P 500 Equal Weight Consumer Staples ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
DIV	Global X SuperDividend US ETF	NYSE Arca
FDIS	Fidelity MSCI Consumer Discretionary Index ETF	NYSE Arca
PFXF	VanEck Vectors Preferred Securities ex Financials ETF	NYSE Arca
IYM	iShares U.S. Basic Materials ETF	NYSE Arca
SIVR	Aberdeen Standard Physical Silver Shares ETF	NYSE Arca
FXG	First Trust Consumer Staples AlphaDEX Fund	NYSE Arca
PICK	iShares MSCI Global Metals & Mining Producers ETF	CboeBZX
TFLO	iShares Treasury Floating Rate Bond ETF	NYSE Arca
IWC	iShares Micro-Cap ETF	NYSE Arca
FENY	Fidelity MSCI Energy Index ETF	NYSE Arca
NUAG	Nuveen Enhanced Yield U.S. Aggregate Bond ETF	NYSE Arca
JKE	iShares Morningstar Large-Cap Growth ETF	NYSE Arca
MXI	iShares Global Materials ETF	NYSE Arca
IBDP	iShares iBonds Dec 2024 Term Corporate ETF	NYSE Arca
LVHD	Legg Mason Low Volatility High Dividend ETF	NASDAQ
DBEH	iM DBi Hedge Strategy ETF	NYSE Arca
FXR	First Trust Industrials/Producer Durables AlphaDEX Fund	NYSE Arca
IYY	iShares Dow Jones U.S. ETF	NYSE Arca
EZM	WisdomTree U.S. MidCap Fund	NYSE Arca
XPH	SPDR S&P Pharmaceuticals ETF	NYSE Arca
DFJ	WisdomTree Japan SmallCap Dividend Fund	NYSE Arca
PCEF	Invesco CEF Income Composite ETF	NYSE Arca
LIT	Global X Lithium & Battery Tech ETF	NYSE Arca
AOK	iShares Core Conservative Allocation ETF	NYSE Arca
ILTB	iShares Core 10+ Year USD Bond ETF	NYSE Arca
IQDF	FlexShares International Quality Dividend Index Fund	NYSE Arca

USMC	Principal U.S. Mega-Cap Multi-Factor Index ETF	NASDAQ
IHE	iShares U.S. Pharmaceuticals ETF	NYSE Arca
FDVV	Fidelity High Dividend ETF	NYSE Arca
FXD	First Trust Consumer Discretionary AlphaDEX Fund	NYSE Arca
FM	iShares MSCI Frontier 100 ETF	NYSE Arca
PTMC	Pacer Trendpilot US Mid Cap ETF	CboeBZX
TDIV	First Trust NASDAQ Technology Dividend Index Fund	NASDAQ
QLTA	iShares Aaa-A Rated Corporate Bond ETF	NYSE Arca
ICVT	iShares Convertible Bond ETF	CboeBZX
SCHK	Schwab 1000 Index ETF	NYSE Arca
SMDV	ProShares Russell 2000 Dividend Growers ETF	CboeBZX
AVUS	Avantis U.S. Equity ETF	NYSE Arca
REGL	ProShares S&P MidCap 400 Dividend Aristocrats ETF	CboeBZX

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
FLQL	Franklin LibertyQ U.S. Equity ETF	CboeBZX
IXP	iShares Global Comm Services ETF	NYSE Arca
BBAX	JPMorgan BetaBuilders Developed Asia ex-Japan ETF	CboeBZX
PUI	Invesco DWA Utilities Momentum ETF	NASDAQ
XHE	SPDR S&P Health Care Equipment ETF	NYSE Arca
XSOE	WisdomTree Emerging Markets ex-State-Owned Enterprises Fund	NYSE Arca
HYEM	VanEck Vectors Emerging Markets High Yield Bond ETF	NYSE Arca
FCOM	Fidelity MSCI Communication Services Index ETF	NYSE Arca
CFA	VictoryShares US 500 Volatility Wtd ETF	NASDAQ
RYH	Invesco S&P 500 Equal Weight Health Care ETF	NYSE Arca
DBO	Invesco DB Oil Fund	NYSE Arca
CGW	Invesco S&P Global Water Index ETF	NYSE Arca
BAR	GraniteShares Gold Shares	NYSE Arca
PEY	Invesco High Yield Equity Dividend Achievers ETF	NASDAQ
IBDQ	iShares iBonds Dec 2025 Term Corporate ETF	NYSE Arca
AOA	iShares Core Aggressive Allocation ETF	NYSE Arca
EES	WisdomTree U.S. SmallCap Fund	NYSE Arca
PTNQ	Pacer Trendpilot 100 ETF	CboeBZX
CMBS	iShares CMBS ETF	NYSE Arca
ATMP	Barclays ETN+ Select MLP ETN	CboeBZX
PHO	Invesco Water Resources ETF	NASDAQ
LDUR	PIMCO Enhanced Low Duration Active ETF	NYSE Arca
CFO	VictoryShares US 500 Enhanced Volatility Wtd ETF	NASDAQ
GIGB	Goldman Sachs Access Investment Grade Corporate Bond ETF	NYSE Arca
DTD	WisdomTree U.S. Total Dividend Fund	NYSE Arca

FDLO	Fidelity Low Volatility Factor ETF	NYSE Arca
JO	iPath Series B Bloomberg Coffee Subindex Total Return ETN	NYSE Arca
HDGE	AdvisorShares Ranger Equity Bear ETF	NYSE Arca
JAGG	J.P. Morgan Exchange-Traded Fund Trust	NYSE Arca
LTPZ	PIMCO 15+ Year US TIPS Index ETF	NYSE Arca
SNLN	Highland iBoxx Senior Loan ETF	NASDAQ
SMIN	iShares MSCI India Small Cap ETF	CboeBZX
SHE	SPDR SSGA Gender Diversity Index ETF	NYSE Arca
DWX	SPDR S&P International Dividend ETF	NYSE Arca
FLTR	VanEck Vectors Investment Grade Floating Rate ETF	NYSE Arca
FEP	First Trust Europe AlphaDEX Fund	NASDAQ
GWX	SPDR S&P International Small Cap ETF	NYSE Arca
VSGX	Vanguard ESG International Stock ETF	CboeBZX
ARGT	Global X MSCI Argentina ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
AMU	ETRACS Alerian MLP Index ETN	NYSE Arca
ENZL	iShares MSCI New Zealand ETF	NASDAQ
IVOO	Vanguard S&P Mid-Cap 400 ETF	NYSE Arca
POCT	Innovator S&P 500 Power Buffer ETF - October	CboeBZX
PSCH	Invesco S&P SmallCap Health Care ETF	NASDAQ
TPYP	Tortoise North American Pipeline Fund	NYSE Arca
AWTM	Aware Ultra-Short Duration Enhanced Income ETF	NYSE Arca
xsw	SPDR S&P Software & Services ETF	NYSE Arca
IVLU	iShares Edge MSCI Intl Value Factor ETF	NYSE Arca
VRIG	Invesco Variable Rate Investment Grade ETF	NASDAQ
ZIV	VelocityShares Daily Inverse VIX Medium-Term ETN	NASDAQ
QAI	IQ Hedge Multi-Strategy Tracker ETF	NYSE Arca
FGD	First Trust Dow Jones Global Select Dividend Index Fund	NYSE Arca
XNTK	SPDR NYSE Technology ETF	NYSE Arca
PNQI	Invesco NASDAQ Internet ETF	NASDAQ
VTC	Vanguard Total Corporate Bond ETF	NASDAQ
EXI	iShares Global Industrials ETF	NYSE Arca
FLTB	Fidelity Limited Term Bond ETF	NYSE Arca
SRVR	Pacer Benchmark Data & Infrastructure Real Estate SCTR ETF	NYSE Arca
EPS	WisdomTree U.S. LargeCap Fund	NYSE Arca
FXC	Invesco CurrencyShares Canadian Dollar Trust	NYSE Arca
REMX	VanEck Vectors Rare Earth/Strategic Metals ETF	NYSE Arca
ULST	SPDR SSgA Ultra Short Term Bond ETF	NYSE Arca

BOCT	Innovator S&P 500 Buffer ETF - October	CboeBZX
SUSL	iShares ESG MSCI USA Leaders ETF	NASDAQ
TILT	FlexShares Morningstar US Market Factor Tilt Index Fund	CboeBZX
EPU	iShares MSCI Peru ETF	NYSE Arca
PWB	Invesco Dynamic Large Cap Growth ETF	NYSE Arca
BSCP	Invesco Bulletshares 2025 Corporate Bond ETF	NASDAQ
PNOV	Innovator S&P 500 Power Buffer ETF - November	CboeBZX
WIP	SPDR FTSE International Government Inflation-Protected Bond ETF	NYSE Arca
BDEC	Innovator S&P 500 Buffer ETF - December	CboeBZX
SCHI	Schwab 5-10 Year Corporate Bond ETF	NYSE Arca
PJP	Invesco Dynamic Pharmaceuticals ETF	NYSE Arca
HDEF	Xtrackers MSCI EAFE High Dividend Yield Equity ETF	NYSE Arca
IHDG	WisdomTree International Hedged Quality Dividend Growth Fund	NYSE Arca
HEWG	iShares Currency Hedged MSCI Germany ETF	NASDAQ
FIDU	Fidelity MSCI Industrials Index ETF	NYSE Arca
IBDR	iShares iBonds Dec 2026 Term Corporate ETF	NYSE Arca

<b>Ticker</b>	<b>ETP Name</b>	<b>Exchange</b>
OUSA	O'Shares FTSE US Quality Dividend ETF	NYSE Arca
FXF	Invesco CurrencyShares Swiss Franc Trust	NYSE Arca
HFXI	IQ 50 Percent Hedged FTSE International ETF	NYSE Arca
FNY	First Trust Mid Cap Growth AlphaDEX Fund	NASDAQ
AVDE	Avantis International Equity ETF	NYSE Arca
FIW	First Trust Water ETF	NYSE Arca
FNX	First Trust Mid Cap Core AlphaDEX Fund	NASDAQ
CLTL	Invesco Treasury Collateral Etf	NYSE Arca
AIA	iShares Asia 50 ETF	NASDAQ
DVOL	First Trust Dorsey Wright Momentum & Low Volatility ETF	NASDAQ
PAUG	Innovator S&P 500 Power Buffer ETF - August	CboeBZX
DIAL	Columbia Diversified Fixed Income Allocation ETF	NYSE Arca
FXZ	First Trust Materials AlphaDEX Fund	NYSE Arca

## Appendix B -- Data and Reporting

**I. Data Provision.** The Commission may request from the Primary Listing Exchanges the below data that is not otherwise publicly available. The requested data shall be collected and transmitted to the Commission in an agreed-upon format, to be provided 30 calendar days following the date of the request, or such other date as agreed upon by the Commission and Primary Listing Exchange. Data collected in connection with a Commission request shall be transmitted to the Commission with a request for confidential treatment under the Freedom of Information Act, 5 U.S.C. § 552, and the Commission's rules and regulations thereunder. This section shall expire at the time the below data becomes available via the National Market System Plan Governing the Consolidated Audit Trail or becomes publicly available.

- A. Data set of all orders entered during halts or Trading Pauses
  - 1. Normal or Auction Only orders, Arrivals, Changes, Cancels, # shares, limit/market, side, Limit State side
  - 2. Pipe delimited with field name as first record
- B. Data set of order events received during Limit States
- C. Summary data on order flow of arrivals and cancellations for each 15-second period for discrete time periods and sample stocks to be determined by the SEC in subsequent data requests. Must indicate side(s) of Limit State.
  - 1. Market/marketable sell orders arrivals and executions
    - a. Count
    - b. Shares
    - c. Shares executed
  - 2. Market/marketable buy orders arrivals and executions
    - a. Count

- b. Shares
- c. Shares executed
- 3. Count arriving, volume arriving and shares executing in limit sell orders above NBO mid-point
- 4. Count arriving, volume arriving and shares executing in limit sell orders at or below NBBO mid-point (non-marketable)
- 5. Count arriving, volume arriving and shares executing in limit buy orders at or above NBBO mid-point (non-marketable)
- 6. Count arriving, volume arriving and shares executing in limit buy orders below NBBO mid-point
- 7. Count and volume arriving of limit sell orders priced at or above NBBO mid-point plus \$0.05
- 8. Count and volume arriving of limit buy orders priced at or below NBBO mid-point minus \$0.05
- 9. Count and volume of (3-8) for cancels
- 10. Include: ticker, date, time at start, time of Limit State, all data item fields in 1, last sale prior to 15-second period (null if no trades today), range during 15-second period, last trade during 15-second period

## II. Reporting

**A. Annual Report.** No later than March 31, 2020 and annually thereafter, the Operating Committee, in consultation with the Advisory committee, will provide the Commission and make publicly available a report containing key information concerning the Plan's performance during the preceding calendar year which shall include the following items: (1) an update on the Plan's operations; (2) an analysis of any amendments to the Plan implemented during the period covered by the report; and (3) an analysis of potential material emerging issues that may directly impact the operation of the Plan.

- 1. Update on the Plan's Operations. This section of the Annual Report shall analyze the Plan's operations during the covered period, including a discussion

of any areas of the Plan's operation that require additional analysis. In particular, this section of the Annual Report shall examine the calibration of the parameters set forth in the Plan (e.g., Price Bands, duration of Limit States, impact of Straddle States, duration of Trading Pauses, and the performance of reopening procedures following a Trading Pause). This section of the Annual Report also shall consider stock characteristics and variations in market conditions over time, and may include tests that differentiate results for different characteristics, both in isolation and in combination. This section of the Annual Report shall separately analyze the impact and operations of overnight protections implemented during Overnight Protected Hours.

2. Analysis of Amendments Implemented. This section of the Annual Report shall provide an analysis of any amendments implemented during the covered period. The analysis shall include a discussion of any such amendment's operation and its impact on the overall operation of the Plan.

3. Analysis of Emerging Issues. This section of the Annual Report should vary from year-to-year and will include a discussion and analysis of the Plan's operation during a significant market event that may have occurred during the covered period. This section shall also include any additional analyses performed during the covered period on issues that were raised in previous Annual Reports.

**A. Quarterly Data.** Thirty days following the end of each calendar quarter, the Operating Committee shall provide the Commission and make publicly available a report ("Monitoring Report") including basic statistics aggregated across primary

listing exchanges regarding the Plan's operation during the preceding calendar quarter, as well as data aggregated across primary listing exchanges from the previous 12 quarters beginning with the calendar quarter covered by the first Monitoring Report. The purpose of the Monitoring Report is to identify trends in the performance and impact of the Plan on market activity. The Monitoring Report shall include data on the following events for each month during the preceding calendar quarter:

**1. Limit States, Trading Pauses, Straddle States, and Clearly Erroneous Events**

a. Definitions. For the purpose of this Section B.1 and B.2

below, the following definitions apply:

1. "Category" means the following categories of securities:

- 1) Tier 1 non-ETP securities > \$3.00
- 2) Tier 1 non-ETP securities >= \$0.75 and <= \$3.00
- 3) Tier 1 non-ETP securities < \$0.75
- 4) Tier 1 non-leveraged ETPs > \$3.00
- 5) Tier 1 non-leveraged ETPs >= \$0.75 and <= \$3.00
- 6) Tier 1 non-leveraged ETPs < \$0.75
- 7) Tier 1 leveraged ETPs > \$3.00
- 8) Tier 1 leveraged ETPs >= \$0.75 and <= \$3.00
- 9) Tier 1 leveraged ETPs < \$0.75
- 10) Tier 2 non-ETPs > \$3.00
- 11) Tier 2 non-ETPs >= \$0.75 and <= \$3.00
- 12) Tier 2 non-ETPs < \$0.75
- 13) Tier 2 non-leveraged ETPs > \$3.00
- 14) Tier 2 non-leveraged ETPs >= \$0.75 and <= \$3.00
- 15) Tier 2 non-leveraged ETPs < \$0.75
- 16) Tier 2 leveraged ETPs > \$3.00
- 17) Tier 2 leveraged ETPs >= \$0.75 and <= \$3.00
- 18) Tier 2 leveraged ETPs < \$0.75

2. "Time of Day" means the following time spans:

- 1) Opening (prior to 9:45 am ET)
- 2) Regular (between 9:45 am ET and 25 minutes prior to the end of core trading hours)
- 3) Closing (the last 25 minutes of core trading hours)

- 4) Within five minutes of a Trading Pause reopen or IPO open

b. Limit States. The Monitoring Report will include:

1. Monthly distribution statistics (mean, median, 25<sup>th</sup> percentile, and maximum) on the number of Limit States per day, broken out by Category and Time of Day.
2. Monthly distribution statistics (mean, median, 25<sup>th</sup> percentile, and maximum) on the number of NMS Stocks that experienced more than one Limit State on a single day, broken out by Category.
3. Monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99<sup>th</sup> percentile) on the number of Limit States experienced per day by individual NMS Stocks that had more than one Limit State on a single day, broken out by Category.
4. Monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99<sup>th</sup> percentile) on the total length of Limit States experienced per day by individual NMS Stocks that had more than one Limit State on a single day, broken out by Category.

c. Trading Pauses. The Monitoring Report will include:

1. Monthly distribution statistics (mean, median, 25<sup>th</sup> percentile, and maximum) on the number of Trading

Pauses per day, broken out by Category and Time of Day.

2. Monthly distribution statistics (mean, median, 25<sup>th</sup> percentile, and maximum) on the number of NMS Stocks that experienced more than one Trading Pause on a single day, broken out by Category.
3. Monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and maximum) on the number of Trading Pauses per day experienced by individual NMS Stocks having more than one Trading Pause on a single day, broken out by Category.

d. Straddle States. The Monitoring Report will include:

1. Monthly distribution statistics (mean, median, 25<sup>th</sup> percentile, and maximum) on the number of Straddle States per day, broken out by Category and Time of Day.
2. Monthly distribution statistics (mean, median, 25<sup>th</sup> percentile, and maximum) on the number of NMS Stocks that experienced more than one Straddle State on a single day, broken out by Category.
3. Monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99.9<sup>th</sup> percentile) on the total time spent in a Straddle State per day for individual NMS Stocks

experiencing one or more Straddle States on a single day,  
broken out by Category.

- e. The Monitoring Report will include the number of Clearly Erroneous Events per day for all NMS Stocks that occurred during the time when Price Bands are disseminated by the Processor, broken out by Category and Time of Day.

## **2. Reopening Data**

- a. Definitions. For the purpose of this Section B.2, the following definitions apply:

- 1. "Type of Reopening" means either (1) manual or (2) automated.
- 2. "Category" means the following categories of securities:
  - 1) Tier 1 non-ETP securities
  - 2) Tier 1 non-leveraged ETPs
  - 3) Tier 1 leveraged ETPs
  - 4) Tier 2 non-ETP securities
  - 5) Tier 2 non-leveraged ETPs
  - 6) Tier 2 leveraged ETPs
- 3. "Length of the Trading Pause" means the following durations:
  - 1) less than 6 minutes (for manual reopenings) or no extensions of the Trading Pause (for automated reopenings);
  - 2) 6 to 10 minutes (for manual reopenings) or one extension of the Trading Pause (for automated reopenings);
  - 3) more than 10 minutes (for manual reopenings) or more than one

extension of the Trading Pause (for automated reopenings)

- b. The Monitoring Report will include the following monthly data on reopenings:
1. The number of Trading Pauses per month, broken out by (1) Type of Reopening, (2) Category, and (3) Length of the Trading Pause.
  2. Monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99<sup>th</sup> percentile) on the duration of each Trading Pause, broken out by (1) Type of Reopening and (2) Category.
  3. The number of Trading Pauses ending in a:
    - 1) trade;
    - 2) quote; and
    - 3) potential closing auction,broken out by (a) Type of Reopening, (b) Category, and (c) Length of Trading Pause.
  4. For Trading Pauses in NMS Stocks preceded by a Limit Up state, monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99<sup>th</sup> percentile) on the percentage price change from the Limit Up pricing that triggered the Trading Pause to the reopening price on exiting the Trading Pause (i.e., the reopening trade or midpoint price), broken out by (1)

Category and (2) whether the Trading Pause ended in a trade or (3) in a quote (i.e., the reopening price was a midpoint).

5. For Trading Pauses in NMS Stocks preceded by a Limit Down state, monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99<sup>th</sup> percentile) on the percentage price change from the Limit Down pricing that triggered the Trading Pause to the reopening price on exiting the Trading Pause (i.e., the reopening trade or midpoint price), broken out by (1) Category and (2) whether the Trading Pause ended in a trade or (3) in a quote (i.e., the reopening price was a midpoint).
6. For Trading Pauses in NMS Stocks where the reopening process ended in a trade or quote (with resulting reference price equal to the midpoint of that quote), monthly distribution statistics (mean, median, 90<sup>th</sup> percentile, and 99<sup>th</sup> percentile) on the percentage price change from the reopening price on exiting the Trading Pause (i.e., the reopening trade or midpoint price) to
  - 1) the highest price of all last sale eligible trades;
  - 2) the lowest price of all last sale eligible trades; and
  - 3) the trade-weighted average price of all last sale eligible trades for the five minutes following the conclusion of the Trading Pause,

broken out by (a) Category, (b) whether the Trading Pause was preceded by a Limit Up state or (c) a Limit Down state, and (d) whether the Trading Pause ended in a trade or (e) in a quote (i.e., the reopening price was a midpoint).

3. Overnight Data. The Monitoring Report will include monthly data on overnight protections, such to be determined by the Participants.

**C. Reports on Market Events.** At the Commission's request, the Operating Committee shall provide the Commission and make publicly available a report analyzing the Plan's operation during a significant market event that (1) materially impacted the trading of more than one security across multiple Trading Centers; and (2) is directly related to or implicating the performance of the Plan. Such report shall be provided to the Commission no later than 30 days following the Commission's request, or at a later date as agreed upon between the Commission and the Operation Committee. The requirement to submit a report under this section may be satisfied by including the required analysis within an Annual Report.