

Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NYSE-2020-18 and should be submitted on or before April 13, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>14</sup>

**J. Matthew DeLesDernier,**  
*Assistant Secretary.*

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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-88406; File No. 4-631]

### Joint Industry Plan; Notice of Filing of the Twentieth Amendment to the National Market System Plan To Address Extraordinary Market Volatility by Cboe BYX Exchange, Inc., Cboe BZX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Chicago Stock Exchange, Inc., Financial Industry Regulatory Authority, Inc., Investors Exchange LLC, Long-Term Stock Exchange, NASDAQ BX, Inc., NASDAQ PHLX LLC, The Nasdaq Stock Market LLC, NYSE National, Inc., New York Stock Exchange LLC, NYSE American LLC, and NYSE Arca, Inc.

March 17, 2020.

#### I. Introduction

On February 13, 2020, NYSE Group, Inc., on behalf of the following parties to the National Market System Plan to Address Extraordinary Market Volatility ("the Plan"): <sup>1</sup> Cboe BZX Exchange, Inc.,

Cboe BYX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Chicago Stock Exchange, Inc., the Financial Industry Regulatory Authority, Inc. ("FINRA"), Investors Exchange LLC, Long-Term Stock Exchange ("LTSE"), NASDAQ BX, Inc., NASDAQ PHLX LLC, The NASDAQ Stock Market LLC ("Nasdaq"), New York Stock Exchange LLC ("NYSE"), NYSE Arca, Inc., NYSE National Inc., and NYSE American LLC (collectively, the "Participants") filed with the Securities and Exchange Commission ("Commission") pursuant to Section 11A(a)(3) of the Securities Exchange Act

noticed for immediate effectiveness the Second Amendment to the Plan. See Securities Exchange Act Release No. 68953, 78 FR 13113 (February 26, 2013). On April 3, 2013, the Commission approved the Third Amendment to the Plan. See Securities Exchange Act Release No. 69287, 78 FR 21483 (April 10, 2013). On August 27, 2013, the Commission noticed for immediate effectiveness the Fourth Amendment to the Plan. See Securities Exchange Act Release No. 70273, 78 FR 54321 (September 3, 2013). On September 26, 2013, the Commission approved the Fifth Amendment to the Plan. See Securities Exchange Act Release No. 70530, 78 FR 60937 (October 2, 2013). On January 7, 2014, the Commission noticed for immediate effectiveness the Sixth Amendment to the Plan. See Securities Exchange Act Release No. 71247, 79 FR 2204 (January 13, 2014). On April 3, 2014, the Commission approved the Seventh Amendment to the Plan. See Securities Exchange Act Release No. 71851, 79 FR 19687 (April 9, 2014). On February 19, 2015, the Commission approved the Eight Amendment to the Plan. See Securities Exchange Act Release No. 74323, 80 FR 10169 (February 25, 2015). On October 22, 2015, the Commission approved the Ninth Amendment to the Plan. See Securities Exchange Act Release No. 76244, 80 FR 66099 (October 28, 2015). On April 21, 2016, the Commission approved the Tenth Amendment to the Plan. See Securities Exchange Act Release No. 77679, 81 FR 24908 (April 27, 2016). On August 26, 2016, the Commission noticed for immediate effectiveness the Eleventh Amendment to the Plan. See Securities Exchange Act Release No. 78703, 81 FR 60397 (September 1, 2016). On January 19, 2017, the Commission approved the Twelfth Amendment to the Plan. See Securities Exchange Act Release No. 79845, 82 FR 8551 (January 26, 2017). On April 13, 2017, the Commission approved the Thirteenth Amendment to the Plan. See Securities Exchange Act Release No. 80455, 82 FR 18519 (April 19, 2017). On April 28, 2017, the Commission noticed for immediate effectiveness the Fourteenth Amendment to the Plan. See Securities Exchange Act Release No. 80549, 82 FR 20928 (May 4, 2017). On September 26, 2017, the Commission noticed for immediate effectiveness the Fifteenth Amendment to the Plan. See Securities Exchange Act Release No. 81720, 82 FR 45922 (October 2, 2017). On March 15, 2018, the Commission noticed for immediate effectiveness the Sixteenth Amendment to the Plan. See Securities Exchange Act Release No. 82887, 83 FR 12414 (March 21, 2018). On April 12, 2018, the Commission approved the Seventeenth Amendment to the Plan. See Securities Exchange Act Release No. 83044, 83 FR 17205 (April 18, 2018). On April 11, 2019, the Commission approved the Eighteenth Amendment to the Plan. See Securities Exchange Act Release No. 85623 (April 11, 2019), 84 FR 16086 (April 17, 2019). On February 5, 2020, the Commission noticed for immediate effectiveness the Nineteenth Amendment to the Plan. See Securities Exchange Act Release No. 88122 (February 5, 2020), 85 FR 7805 (February 11, 2020).

of 1934 ("Exchange Act")<sup>2</sup> and Rule 608 thereunder,<sup>3</sup> a proposal to amend the Plan ("Twentieth Amendment").<sup>4</sup> The proposal reflects changes unanimously approved by the Participants. The Twentieth Amendment proposes to: (i) Amend Section II.B of Appendix B, concerning the quarterly reports provided by the Operating Committee to the Commission; and amend the Plan to reflect the name change of the Chicago Stock Exchange, Inc. to NYSE Chicago, Inc. The Commission is publishing this notice to solicit comments from interested persons on the Twentieth 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 Eighteenth Amendment, along with the information required by Rule 608(a)(4) and (5) under the Exchange Act,<sup>6</sup> substantially 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 Stocks, as defined in Rule 600(b)(47) 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. 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 detailed above, the Plan was amended numerous times between 2011

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

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

<sup>4</sup> See Letter from Elizabeth King, General Counsel and Corporate Secretary, NYSE, to Vanessa Countryman, Secretary, Commission, dated February 13, 2020 ("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. The statement of the purpose and summary of the amendment and the information required by Rule 608(a)(4) and (5) is reproduced verbatim from the Transmittal Letter unless otherwise noted; cross-references have been revised to conform with the footnote sequencing of this notice.

<sup>8</sup> 17 CFR 242.600(b)(47).

<sup>14</sup> 17 CFR 200.30-3(a)(12).

<sup>1</sup> On May 31, 2012, the Commission approved the Plan, as modified by Amendment No. 1. See Securities Exchange Act Release No. 67091, 77 FR 33498 (June 6, 2012) (File No. 4-631) ("Approval Order"). On February 20, 2013, the Commission

and 2019. On April 11, 2019, the Commission approved the eighteenth amendment to the Plan,<sup>9</sup> which transitioned the Plan from operating on a pilot to a permanent basis. The eighteenth amendment included changes to the Plan's Appendix B, "Data and Reporting," which revised the Participants' requirements to report data about the Plan's ongoing operation to the Commission. Under the eighteenth amendment, the Plan requires the Participants to provide to the Commission an annual report assessing the Plan's performance, quarterly reports providing basic statistics, and *ad hoc* reports that may be requested by the Commission following significant market events.

Section II.B of Appendix B ("Appendix B.II.B") concerns the quarterly reports to be provided to the Commission. Appendix B.II.B currently provides that 30 days following the end of each calendar quarter, the Operating Committee shall provide the Commission and make publicly available a report including basic statistics regarding the Plan's operation ("Monitoring Report") during the preceding calendar quarter as well as aggregated data from the previous 12 quarters beginning with the calendar quarter covered by the first Monitoring Report. Appendix B.II.B requires the Monitoring Report to include data on the number and rate of recurrence of Limit States, Straddle States, and Trading Pauses for each month during the calendar quarter, as well as the performance of reopening procedures following a Trading Pause. Appendix B.II.B also currently provides that the Monitoring Report will include data on the number of Clearly Erroneous Executions that occur during the preceding calendar quarter. In addition, Appendix B.II.B currently states that the data in the Monitoring Report should be partitioned by "category" (*i.e.*, type of issue and price range), as well as by the "time of day" of the event.<sup>10</sup>

The Participants now propose to amend Appendix B.II.B in order to improve the clarity and transparency of the quarterly reporting requirements.

<sup>9</sup> See Securities Exchange Act Release No. 85623 (April 11, 2019), 84 FR 16086 (April 17, 2019) (File No. 4-631).

<sup>10</sup> In several places in the Notice describing the Monitoring Report requirements, the Participants state that they "should" do certain things or provide certain data. The Commission notes that LULD Plan requires the Participants to meet such obligations and they are not voluntary on the part of the Participants. Therefore, in instances where the Notice states that the Participants "should" include something in the Monitoring Report, the Commission notes that the LULD Plan requires that the data be provided.

The Participants also propose to make a non-substantive amendment to the Plan to reflect the name change of Chicago Stock Exchange, Inc., to NYSE Chicago, Inc.

#### 1. Proposal To Improve Clarity and Transparency of Appendix B.II.B

The Participants propose to amend Appendix B.II.B to improve its clarity and transparency by revising and supplementing the current language. In preparing to compile and aggregate the data required for the first quarterly report, the Participants determined that the language of Appendix B.II.B could be improved by, among other things: (a) Emphasizing from the outset that the data should be aggregated across primary listing exchanges, (b) specifying the specific partitions that should be applied to each data point, (c) specifying the specific distribution statistics that should be applied to each data point, and (d) providing additional clarity as to what Reopening data should be included.

The Participants emphasize that the intention of this amendment is not to substantively change the requirements in Appendix B.II.B, but to amend the language of Appendix B.II.B to give more complete directions as to the information that should be included in the quarterly Monitoring Reports.

##### a. Data Aggregated Across Primary Listing Exchanges

The opening paragraph of Appendix B.II.B currently refers to "aggregate data," but is not clear that the data for the quarterly Monitoring Report should be aggregated across primary listing exchanges, as opposed to aggregated in some other fashion. The Participants propose to amend this paragraph to make clear that the quarterly Monitoring Report will include basic statistics aggregated across primary listing exchanges regarding the Plan's operation during the preceding calendar quarter, as well as data aggregated across exchanges from the previous 12 quarters beginning with the calendar quarter covered by the first Monitoring Report.

##### b. Specific Partitions To Apply to Each Data Category

Appendix B.II.B currently contains provisions entitled "Partition stocks by category" and "Partition by time of day." The Participants propose to replace this text to specify more clearly (i) which partitions apply to the data for Limit States, Trading Pauses, Straddle States, and Clearly Erroneous Events, and which partitions apply to the data for Reopenings, which differ; (ii) the 18 different category partitions that apply

to the data for Limit States, Trading Pauses, Straddle States, and Clearly Erroneous Events; (iii) the specific time-frames covered by each time-of-day partition; and (iv) that the data provided for Reopenings must take into account the differences between manual and automated reopenings.

First, in preparing to compile the data required for the first quarterly report, the Participants determined that the partitions listed in the current Appendix B.II.B reasonably apply to the data for Limit States, Trading Pauses, Straddle States, and Clearly Erroneous Events, and that the Reopenings data requires different partitions. The Participants therefore propose to restructure Appendix B.II.B into two subsections, each with their own "Definitions" section that specifies the partitions that would be applicable to that subsection. Specifically, proposed Appendix B.II.B.1.a would define the partitions that would apply to data about Limit States, Trading Pauses, Straddle States, and Clearly Erroneous Events, and proposed Appendix B.II.B.2.a would define the partitions that would apply to data about Reopenings.

Second, the current version of Appendix B.II.B lists only eight separate "categories" into which securities should be partitioned, but the full language of that provision indicates that 18 categories are actually intended. Appendix B.II.B currently lists the first three categories as "Tier 1 non-ETP issues > \$3.00," "Tier 1 non-ETP >= \$0.75 and <= \$3.00," and "Tier 1 non-ETP issues < \$0.75," and then lists five other categories of securities that should also be divided "in each of the above categories." The Participants understand this language to mean that each of the six categories of securities listed—that is, Tier 1 non-ETPs, Tier 1 non-leveraged ETPs, Tier 1 leveraged ETPs, Tier 2 non-ETPs, Tier 2 non-leveraged ETPs, and Tier 2 leveraged ETPs—should each be further subdivided into three subcategories: Greater than \$3.00, between \$0.75 and \$3.00, and less than \$0.75. As such, the Participants propose to clearly list in the amended Appendix B.II.B.1.a.i all 18 of the categories of securities into which the Limit State, Trading Pause, Straddle State, and Clearly Erroneous Events data should be partitioned:

- (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

Third, the current Appendix B.II.B.3 states that the “time of day” partitions are “Opening (prior to 9:45 a.m. ET),” “Regular (between 9:45 a.m. ET and 3:35 p.m. ET),” “Closing (after 3:35 p.m. ET),” and “Within five minutes of a Trading Pause re-open or IPO open.” These partitions, however, assume that all trading days are full trading days, and do not account for partial trading days where the markets are scheduled to close early, such as the day after Thanksgiving and December 24. The Participants accordingly propose to amend Appendix B.II.B to add new subsection 1.a.ii, to specify that “Time of Day” means the following time spans:

- (1) Opening (prior to 9:45 a.m. ET)
- (2) Regular (between 9:45 a.m. 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

Fourth, the current Appendix B.II.B does not include any language partitioning Reopenings data between manual and automated reopenings.<sup>11</sup> The Participants accordingly propose to amend Appendix B.II.B to add new subsection 2.a.i requiring that they partition Reopening data by whether the reopening is manual or automated. The Participants also propose to add new subsection 2.a.iii, to require that the data for Reopenings be partitioned by the “Length of the Trading Pause,” which would be defined as:

- Less than 6 minutes (for manual reopenings) or no extensions of the Trading Pause (for automated reopenings);
- 6 to 10 minutes (for manual reopenings) or one extension of the

Trading Pause (for automated reopenings);

- more than 10 minutes (for manual reopenings) or more than one extension of the Trading Pause (for automated reopenings).

#### c. Specific Distribution Statistics To Apply to Each Data Category for Limit States, Trading Pauses, Straddle States, and Clearly Erroneous Events

The current Appendix I.I.B.II states in general terms that the Monitoring Report should include data on the “[n]umber of Limit States, Trading Pauses, and Straddle States per day, including distribution statistics such as the mean, median, minimum and maximum percentiles,” and the “[n]umber of NMS Stocks that experience more than one Limit State, Trading Pause, or Straddle State in a single day including the length of each Limit State, Trading Pause, and Straddle State per day.” The current version also states generally that Participants should “[P]artition stocks by category” and “[P]artition by time of day,” even though such partitions do not reasonably apply to every data set required to be supplied in the Monitoring Report.

The Participants propose to add clarity to these reporting requirements by amending Appendix B.II.B to specify the precise distribution statistics and partitions to apply to each data request. Accordingly, the Participants propose to amend Appendix B.II.B.1.b clarify that the Monitoring Report would include:

#### For Limit States

- Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of Limit States per day, broken out by Category and Time of Day.
- Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of NMS Stocks that experienced more than one Limit State on a single day, broken out by Category.
- Monthly distribution statistics (mean, median, 90th percentile, and 99th 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.
- Monthly distribution statistics (mean, median, 90th percentile, and 99th 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.

#### For Trading Pauses

- Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of Trading Pauses per day, broken out by Category and Time of Day.
- Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of NMS Stocks that experienced more than one Trading Pause on a single day, broken out by Category.
- Monthly distribution statistics (mean, median, 90th 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.

#### For Straddle States

- Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of Straddle States per day, broken out by Category and Time of Day.
- Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of NMS Stocks that experienced more than one Straddle State on a single day, broken out by Category.
- Monthly distribution statistics (mean, median, 90th percentile, and 99.9th 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

#### For Clearly Erroneous Events

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

#### d. Additional Clarity on Reopening Data

Finally, regarding Reopening data, Appendix B.II.B currently states that the Monitoring Report should include the “[n]umber of times an automated reopening process is extended for and the length of the Trading Pause,” “[w]hether the reopening process ended in a trade,” “[t]he price calculated by an automated reopening process for an NMS Stock existing a Trading Pause,” and “[f]or the five minutes following the conclusion of a Trading Pause, the highest price of all last sale eligible trades, the lowest price of all last sale eligible trades, and the average price of all last sale eligible trades.”

These provisions, however, do not specify the specific distribution statistics or partitions that the Participants should apply to any of

<sup>11</sup> For purposes of Appendix B, a reopening is considered “manual” if it is facilitated by a member of an exchange (such as a Designated Market Maker on NYSE) that has obligations under that exchange’s rules to facilitate the reopening process. (All reopenings on NYSE are manual.)

these data requests. Additionally, the Participants believe that the quality and utility of the Monitoring Report will be enhanced if they supply additional information about Reopening statistics, including how the Trading Pause ended (whether in a trade, a quote, or a potential closing auction), whether the Trading Pause was preceded by a Limit Up state versus a Limit Down state, and the percentage price change between the price that triggered the Trading Pause and the reopening price on exiting the Trading Pause.

Accordingly, the Participants propose to amend the provisions in Appendix B.II.B pertaining to Reopenings to specify that the Monitoring Report should include:

- The number of Trading Pauses per month, broken out by (a) Type of Reopening, (b) Category, and (c) Length of the Trading Pause.

- Monthly distribution statistics (mean, median, 90th percentile, and 99th percentile) on the duration of each Trading Pause, broken out by (a) Type of Reopening and (b) Category.

- The number of Trading Pauses ending in a (a) trade; (b) quote; and (c) potential closing auction, broken out by (i) Type of Reopening, (ii) Category, and (iii) Length of Trading Pause.

- For Trading Pauses in NMS Stocks preceded by a Limit Up state, monthly distribution statistics (mean, median, 90th percentile, and 99th 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 (a) Category and (b) whether the Trading Pause ended in a trade or (c) in a quote (*i.e.*, the reopening price was a midpoint).

- For Trading Pauses in NMS Stocks preceded by a Limit Down state, monthly distribution statistics (mean, median, 90th percentile, and 99th 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 (a) Category and (b) whether the Trading Pause ended in a trade or (c) in a quote (*i.e.*, the reopening price was a midpoint).

- 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, 90th percentile, and 99th percentile) on the percentage price change from the reopening price on exiting the Trading Pause (*i.e.*, the

reopening trade or midpoint price) to (a) the highest price of all last sale eligible trades, (b) the lowest price of all last sale eligible trades; and (c) 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 (i) Category, (ii) whether the Trading Pause was preceded by a Limit Up state or (iii) a Limit Down state, and (iv) whether the Trading Pause ended in a trade or (v) in a quote (*i.e.*, the reopening price was a midpoint).

The Participants believe that the proposed amendments described above will enhance clarity, improve transparency, and provide direction to the Participants in compiling and aggregating the data required in the quarterly Monitoring Reports.

## 2. Proposal To Change Name of Chicago Stock Exchange, Inc. to NYSE Chicago, Inc.

The Participants also propose to make a non-substantive amendment to the Plan to reflect the name change of Chicago Stock Exchange, Inc. to NYSE Chicago, Inc., and the change of its address from 440 South LaSalle Street, Chicago, Illinois 60605 to 11 Wall Street, New York, New York, 10005.

On October 18, 2018, the Chicago Stock Exchange, Inc. filed a proposed rule change for immediate effectiveness to amend, among other things, its rules to reflect the change of its name to NYSE Chicago, Inc.<sup>12</sup>

## 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 this proposed amendment to the Plan.

## C. Implementation of Amendment

The Participants are filing this proposed amendment pursuant to Rule 608(b)(1) of Regulation NMS under the Exchange Act.<sup>13</sup>

## D. Development and Implementation Phases

The Plan has been fully implemented, and the amendments proposed herein are immediately effective, as noted above.<sup>14</sup>

<sup>12</sup> See Securities Exchange Act Release No. 84494 (October 26, 2018), 83 FR 54953 (November 1, 2018) (SR-CHX-2018-05).

<sup>13</sup> 17 CFR 242.608.

<sup>14</sup> The Commission notes that the Exchanges incorrectly stated in the Transmittal Letter, *supra* note 4, that the proposed amendments are effective upon filing. These amendments are being proposed pursuant to Rule 608(b)(1) of Regulation NMS under the Exchange Act, and the Commission is publishing the proposed amendments for public comment as required by Rule 608(b)(1). The

## 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 Securities Exchange Act of 1934 (“Exchange Act”). The proposed amendments to Appendix B.II.B of the Plan pertain to the obligations of the Participants and the Operating Committee to provide periodic reports to the Commission about the Plan’s ongoing operation. As such, they do not apply directly to any market participants and would not impose a competitive burden on one category of market participant in favor of another category of market participant. For the same reasons, the Participants do not believe that the proposed Plan introduces terms that are unreasonably discriminatory for the purposes of Section 11A(c)(1)(D) of the Exchange Act.

## 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.

## G. Approval of Amendment of the Plan

Each of the Participants has approved the amendment in accordance with Section III(C) of the Plan. Specifically, on February 12, 2020, the Operating Committee, duly constituted and chaired by Mr. Robert Books of Cboe Global Markets, Inc., voted unanimously to amend the Plan as set forth herein. The Participants also received and incorporated feedback from the Plan Advisory Committee in preparing this proposal.

## H. 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.

Commission may approve these proposed amendments if it finds that they are consistent with the standards articulated in Rule 608(b)(2) of Regulation NMS.

*I. 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.

*J. Method and Frequency of Processor Evaluation*

This section is not applicable as the operation of the Plan is conducted by the Primary Listing Exchange.

*K. 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 (<http://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 email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed plan amendment that are filed with the Commission, and all written

communications relating to the amendment between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission’s Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the Participants’ offices. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number 4–631 and should be submitted on or before April 13, 2020.

By the Commission.

**J. Matthew DeLesDernier,**  
*Assistant Secretary.*

**Exhibit A**

Proposed new language is *italicized*; proposed deletions are in [brackets]

**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) 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) Cboe BZX Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605
- (2) Cboe BYX Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605
- (3) Cboe EDGA Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605

(4) Cboe EDGX Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605

[[5] Chicago Stock Exchange, Inc., 440 South LaSalle Street, Chicago, Illinois 60605]

(5[6]) Financial Industry Regulatory Authority, Inc., 1735 K Street NW, Washington, DC 20006

(6[7]) Investors Exchange LLC, 4 World Trade Center, 44th Floor, New York, New York 10007

(7[8]) NASDAQ BX, Inc., One Liberty Plaza, New York, New York 10006

(8[9]) NASDAQ PHLX LLC, 1900 Market Street, Philadelphia, Pennsylvania 19103

(9[10]) The Nasdaq Stock Market LLC, 1 Liberty Plaza, 165 Broadway, New York, NY 10006

(10[11]) NYSE National, Inc., 11 Wall Street, New York, NY 10005

(11[2]) New York Stock Exchange LLC, 11 Wall Street, New York, New York 10005

(12[3]) NYSE American LLC, 11 Wall Street, New York, New York 10005

(13[4]) NYSE Arca, Inc., 11 Wall Street, New York, New York 10005

(14) NYSE Chicago, 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.

(2) 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.

(3) 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 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 reopening 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. Implementation**

The initial date of Plan operations shall be April 8, 2013.

**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.

**X. 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 November 2019 [2018] by each of the parties hereto.

Cboe BZX EXCHANGE, INC.

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

Cboe EDGA EXCHANGE, INC.

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

[CHICAGO STOCK EXCHANGE, INC.

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

INVESTORS EXCHANGE LLC

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

NASDAQ PHLX LLC

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

NYSE NATIONAL, INC.

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

NYSE American LLC

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

NYSE CHICAGO, INC.

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

Cboe BYX EXCHANGE, INC.

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

Cboe EDGX EXCHANGE, INC.

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

FINANCIAL INDUSTRY REGULATORY AUTHORITY, INC.

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

NASDAQ BX, Inc.

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

THE NASDAQ STOCK MARKET LLC

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

NEW YORK STOCK EXCHANGE LLC

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

NYSE ARCA, 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 ("CADV"). The period used to measure CADV 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 CADV 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]

Ticker	ETP name	Exchange
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.
GDV	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.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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	Cboe BZX.
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.
VVO	Vanguard FTSE Emerging Markets ETF	NYSE Arca.
IEFA	iShares Core MSCI EAFE ETF	Cboe BZX.
AGG	iShares Core U.S. Aggregate Bond ETF	NYSE Arca.
VNQ	Vanguard Real Estate ETF	NYSE Arca.
EMB	iShares JP Morgan USD 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.
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	Cboe BZX.
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.
AMPLP	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	Cboe BZX.
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	Cboe BZX.
RSX	VanEck Vectors Russia ETF	Cboe BZX.
VTV	Vanguard Value ETF	NYSE Arca.
INDA	iShares MSCI India ETF	Cboe BZX.
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.
IGV	iShares Expanded Tech-Software Sector ETF	Cboe BZX.
BSV	Vanguard Short-Term Bond ETF	NYSE Arca.
SVXY	ProShares Short VIX Short-Term Futures ETF	NYSE Arca.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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	Cboe BZX.
SOXX	iShares PHLX Semiconductor ETF	NASDAQ.
VGIT	Vanguard Information Technology ETF	NYSE Arca.
BNDX	Vanguard Total International Bond ETF	NASDAQ.
ASHR	Xtrackers Harvest CSI 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	Cboe BZX.
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	Cboe BZX.
FEZ	SPDR EURO STOXX 50 ETF	NYSE Arca.
QUAL	iShares Edge MSCI USA Quality Factor ETF	Cboe BZX.
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.
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	Cboe BZX.
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	Cboe BZX.
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	Cboe BZX.
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.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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.
VXF	Vanguard Extended Market ETF	NYSE Arca.
FVD	First Trust Value Line Dividend Index Fund	NYSE Arca.
IYT	iShares Transportation Average ETF	Cboe BZX.
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.
BLV	Vanguard Long-Term Bond ETF	NYSE Arca.
VBR	Vanguard Small Cap Value ETF	NYSE Arca.
VLUE	iShares Edge MSCI USA Value Factor ETF	Cboe BZX.
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	Cboe BZX.
SCHG	Schwab U.S. Large-Cap Growth ETF	NYSE Arca.
PCY	Invesco Emerging Markets Sovereign Debt ETF	NYSE Arca.
IUSG	iShares Core S&P 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.
HVLB	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	Cboe BZX.
SPDW	SPDR Portfolio Developed World ex-US ETF	NYSE Arca.
NOBL	ProShares S&P 500 Dividend Aristocrats ETF	Cboe BZX.
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.
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.
ACVV	iShares Edge MSCI Min Vol Global ETF	Cboe BZX.
SCHV	Schwab U.S. Large-Cap Value ETF	NYSE Arca.
EFV	iShares MSCI EAFE Value ETF	Cboe BZX.
VPL	Vanguard FTSE Pacific ETF	NYSE Arca.
IJS	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	Cboe BZX.
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	Cboe BZX.
EDV	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.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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.
USHY	iShares Broad USD High Yield Corporate Bond ETF	Cboe BZX.
IDV	iShares International Select Dividend ETF	Cboe BZX.
MGK	Vanguard Mega Cap Growth ETF	NYSE Arca.
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.
IJK	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.
BOND	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	Cboe BZX.
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.
THD	iShares MSCI Thailand ETF	NYSE Arca.
MOAT	VanEck Vectors Morningstar Wide Moat ETF	Cboe BZX.
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.
PTLC	Pacer Trendpilot US Large Cap ETF	Cboe BZX.
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	Cboe BZX.
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.
IJT	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	Cboe BZX.
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.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
BBEU	JPMorgan BetaBuilders Europe ETF	Cboe BZX.
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	Cboe BZX.
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	Cboe BZX.
VIS	Vanguard Industrials ETF	NYSE Arca.
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	Cboe BZX.
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	Cboe BZX.
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	Cboe BZX.
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.
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	Cboe BZX.
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	SPDR Nuveen Bloomberg Barclays Municipal Bond ETF	NYSE Arca.
GVI	iShares Intermediate Government/Credit Bond ETF	Cboe BZX.
MLPX	Global X MLP & Energy Infrastructure ETF	NYSE Arca.
IXJ	iShares Global Healthcare ETF	NYSE Arca.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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.
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 Boserá 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	Cboe BZX.
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	Cboe BZX.
AGZ	iShares Agency Bond ETF	NYSE Arca.
INTF	iShares Edge MSCI Multifactor Intl ETF	NYSE Arca.
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.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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	Cboe BZX.
XMMO	Invesco S&P MidCap Momentum ETF	NYSE Arca.
PPA	Invesco Aerospace & Defense ETF	NYSE Arca.
NUSI	Nationwide Risk-Managed Income ETF	NYSE Arca.
COMT	iShares Commodities Select Strategy ETF	NASDAQ.
PDEC	Innovator S&P 500 Power Buffer ETF—December	Cboe BZX.
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	Cboe BZX.
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	Cboe BZX.
ROBO	ROBO Global Robotics & Automation Index ETF	NYSE Arca.
IBDL	iShares iBonds Dec 2020 Term Corporate ETF	NYSE Arca.
IDLV	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	Cboe BZX.
ESGV	Vanguard ESG U.S. Stock ETF	Cboe BZX.
INDY	iShares India 50 ETF	NASDAQ.
FEX	First Trust Large Cap Core AlphaDEX Fund	NASDAQ.
MNA	IQ Merger Arbitrage ETF	NYSE Arca.



## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
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	Cboe BZX.
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	Cboe BZX.
BSCN	Invesco Bulletshares 2023 Corporate Bond ETF	NASDAQ.
USSG	Xtrackers MSCI USA ESG Leaders Equity ETF	NYSE Arca.
EMHY	iShares Emerging Markets High Yield Bond ETF	Cboe BZX.
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	Cboe BZX.
FLCO	Franklin Liberty Investment Grade Corporate ETF	NYSE Arca.
CLOU	Global X Cloud Computing ETF	NASDAQ.
PLW	Invesco 1–30 Laddered Treasury ETF	NASDAQ.
IOO	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.
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	Cboe BZX.
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	Cboe BZX.
TDIV	First Trust NASDAQ Technology Dividend Index Fund	NASDAQ.

## APPENDIX A—SCHEDULE 1—Continued

[as of January 2, 2020]

Ticker	ETP name	Exchange
QLTA	iShares Aaa-A Rated Corporate Bond ETF	NYSE Arca.
ICVT	iShares Convertible Bond ETF	Cboe BZX.
SCHK	Schwab 1000 Index ETF	NYSE Arca.
SMDV	ProShares Russell 2000 Dividend Growers ETF	Cboe BZX.
AVUS	Avantis U.S. Equity ETF	NYSE Arca.
REGL	ProShares S&P MidCap 400 Dividend Aristocrats ETF	Cboe BZX.
FLQL	Franklin LibertyQ U.S. Equity ETF	Cboe BZX.
IXP	iShares Global Comm Services ETF	NYSE Arca.
BBAX	JPMorgan BetaBuilders Developed Asia ex-Japan ETF	Cboe BZX.
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	Cboe BZX.
CMBS	iShares CMBS ETF	NYSE Arca.
ATMP	Barclays ETN+ Select MLP ETN	Cboe BZX.
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	Cboe BZX.
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	Cboe BZX.
ARGT	Global X MSCI Argentina ETF	NYSE Arca.
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	Cboe BZX.
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.
FLT	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	Cboe BZX.
SUSL	iShares ESG MSCI USA Leaders ETF	NASDAQ.
TILT	FlexShares Morningstar US Market Factor Tilt Index Fund	Cboe BZX.

APPENDIX A—SCHEDULE 1—Continued  
[as of January 2, 2020]

Ticker	ETP name	Exchange
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	Cboe BZX.
WIP	SPDR FTSE International Government Inflation-Protected Bond ETF	NYSE Arca.
BDEC	Innovator S&P 500 Buffer ETF—December	Cboe BZX.
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.
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	Cboe BZX.
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.

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.

B. Quarterly Data. *Thirty* [30] 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 [(“Monitoring Report”) during the preceding calendar quarter, as well as data aggregated [data] 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.

[1.] The *Monitoring Report* [quarterly production] shall include data on the following events [data] for each month during the preceding calendar quarter:

a. Event Data.

- i. Number of Limit States, Trading Pauses, and Straddle States per day, including distribution statistics such as the mean, median, minimum and maximum percentiles
  - ii. Number of NMS Stocks that experience more than one Limit State Trading Pause, or Straddle State in a single day including the length of each Limit State, Trading Pause, and Straddle State per day
- b. 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
- c. Reopening Data

- i. Number of times an automated reopening process is extended for and the length of the Trading Pause
- ii. Whether the reopening process ended in a trade
- iii. The price calculated by an automated reopening process for an NMS Stock exiting a Trading Pause
- iv. For the five minutes following the conclusion of a Trading Pause, the highest price of all last sale eligible trades, the lowest price of all last sale eligible trades, and the average price of all last sale eligible trades

2. Partition stocks by category.

- a. Tier 1 non-ETP issues > \$3.00
  - b. Tier 1 non-ETP issues  $\geq$  \$0.75 and  $\leq$  \$3.00
  - c. Tier 1 non-ETP issues < \$0.75
  - d. Tier 1 non-leveraged ETPs in each of the above categories
  - e. Tier 1 leveraged ETPs in each of the above categories
  - f. Tier 2 non-ETPs in each of the above categories
  - g. Tier 2 non-leveraged ETPs in each of the above categories
  - h. Tier 2 leveraged ETPs in each of the above categories
3. Partition by time of day
- a. Opening (prior to 9:45 a.m. ET)
  - b. Regular (between 9:45 a.m. ET and 3:35 p.m. ET)
  - c. Closing (after 3:35 p.m. ET)
  - d. Within five minutes of a Trading Pause re-open or IPO open]

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

a. *Definitions.* For the purpose of this Section B.1, the following definitions apply:

- i. “Category” means the following categories of securities:

- (1) Tier 1 non-ETP securities > \$3.00
  - (2) Tier 1 non-ETP securities  $\geq$  \$0.75 and  $\leq$  \$3.00
  - (3) Tier 1 non-ETP securities < \$0.75
  - (4) Tier 1 non-leveraged ETPs > \$3.00
  - (5) Tier 1 non-leveraged ETPs  $\geq$  \$0.75 and  $\leq$  \$3.00
  - (6) Tier 1 non-leveraged ETPs < \$0.75
  - (7) Tier 1 leveraged ETPs > \$3.00
  - (8) Tier 1 leveraged ETPs  $\geq$  \$0.75 and  $\leq$  \$3.00
  - (9) Tier 1 leveraged ETPs < \$0.75
  - (10) Tier 2 non-ETPs > \$3.00
  - (11) Tier 2 non-ETPs  $\geq$  \$0.75 and  $\leq$  \$3.00
  - (12) Tier 2 non-ETPs < \$0.75
  - (13) Tier 2 non-leveraged ETPs > \$3.00
  - (14) Tier 2 non-leveraged ETPs  $\geq$  \$0.75 and  $\leq$  \$3.00
  - (15) Tier 2 non-leveraged ETPs < \$0.75
  - (16) Tier 2 leveraged ETPs > \$3.00
  - (17) Tier 2 leveraged ETPs  $\geq$  \$0.75 and  $\leq$  \$3.00
  - (18) Tier 2 leveraged ETPs < \$0.75
- ii. “Time of Day” means the following time spans:
- (1) Opening (prior to 9:45 a.m. ET)
  - (2) Regular (between 9:45 a.m. 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:

- i. Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of Limit States per day, broken out by Category and Time of Day.
- ii. Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of NMS Stocks that experienced more than one Limit State on a single day, broken out by Category.
- iii. Monthly distribution statistics (mean, median, 90th percentile, and 99th 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.
- iv. Monthly distribution statistics (mean, median, 90th percentile, and 99th 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:

- i. Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of Trading Pauses per day, broken out by Category and Time of Day.
- ii. Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of NMS Stocks that experienced more than one Trading Pause on a single day, broken out by Category.
- iii. Monthly distribution statistics (mean, median, 90th 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:

- i. Monthly distribution statistics (mean, median, 25th percentile, and maximum) on

the number of Straddle States per day, broken out by Category and Time of Day.

ii. Monthly distribution statistics (mean, median, 25th percentile, and maximum) on the number of NMS Stocks that experienced more than one Straddle State on a single day, broken out by Category.

iii. Monthly distribution statistics (mean, median, 90th percentile, and 99.9th 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:

i. “Type of Reopening” means either (1) manual or (2) automated.

ii. “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

ii. “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:

i. The number of Trading Pauses per month, broken out by (1) Type of Reopening, (2) Category, and (3) Length of the Trading Pause.

ii. Monthly distribution statistics (mean, median, 90th percentile, and 99th percentile) on the duration of each Trading Pause, broken out by (1) Type of Reopening and (2) Category.

iii. 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.

iv. For Trading Pauses in NMS Stocks preceded by a Limit Up state, monthly distribution statistics (mean, median, 90th percentile, and 99th 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).

v. For Trading Pauses in NMS Stocks preceded by a Limit Down state, monthly distribution statistics (mean, median, 90th percentile, and 99th 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).

vi. 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, 90th percentile, and 99th 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).

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.

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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-88399; File No. SR-NYSE-2020-10]

### Self-Regulatory Organizations; NYSE National, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change of a Temporary Waiver of the Co-Location Hot Hands Fee

March 17, 2020.

Pursuant to Section 19(b)(1)<sup>1</sup> of the Securities Exchange Act of 1934 (the "Act")<sup>2</sup> and Rule 19b-4 thereunder,<sup>3</sup>

notice is hereby given that, on March 16, 2020, NYSE National, Inc. ("NYSE National" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange proposes a temporary waiver of the co-location "Hot Hands" fee beginning on March 16, 2020 through March 29, 2020. The proposed rule change is available on the Exchange's website at [www.nyse.com](http://www.nyse.com), at the principal office of the Exchange, and at the Commission's Public Reference Room.

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

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

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

###### 1. Purpose

The Exchange proposes a temporary suspension of the co-location<sup>4</sup> "Hot Hands" fee beginning on March 16, 2020 through March 29, 2020, after which the Mahwah, New Jersey data center ("Data Center") is scheduled to reopen to third parties.

The Exchange is an indirect subsidiary of Intercontinental Exchange, Inc. ("ICE"). Through its ICE Data Services ("IDS") business, ICE operates the Data Center, from which the

Exchange provides co-location services to Users.<sup>5</sup>

Among those services is a "Hot Hands" service, which allows Users to use on-site Data Center personnel to maintain User equipment, support network troubleshooting, rack and stack a server in a User's cabinet; power recycling; and install and document the fitting of cable in a User's cabinet(s).<sup>6</sup> The Hot Hands fee is \$100 per half hour.

ICE has announced to each User that, starting March 16, 2020, the Data Center will be closed to third parties through March 29, 2020. Pursuant to the ICE contingency plan, the Data Center is being closed to third parties to help avoid the spread of COVID-19, which could negatively impact Data Center functions. The President of the Exchange has taken the actions required under NYSE National Rule 7.1 to close the co-location facility of the Exchange to third parties.<sup>7</sup> While the Rule 7.1 closure is in effect, User representatives will not be allowed access to the Data Center.

If a User's equipment requires work while the Rule 7.1 closure is in effect, the User will have no option but to use the Hot Hands service and, absent the proposed waiver, would incur Hot Hands fees for the work. Given that, the Exchange proposes to waive all Hot Hands fees from the date of the closing through March 29, 2020, and to add text to the Hot Hands Fee in the Price List noting the waiver. The Exchange believes that there will be sufficient Data Center staff on-site to comply with User requests for Hot Hands service.

The proposed waiver would apply equally to all Users. The proposed fee waiver would not apply differently to distinct types or sizes of market participants. Rather, it would apply uniformly to all Users.

The proposed change is not otherwise intended to address any other issues

<sup>5</sup> For purposes of the Exchange's co-location services, a "User" means any market participant that requests to receive co-location services directly from the Exchange. See *id.* at note 9. As specified in the Exchange's Price List, a User that incurs co-location fees for a particular co-location service pursuant thereto would not be subject to co-location fees for the same co-location service charged by the Exchange's affiliates the New York Stock Exchange LLC ("NYSE"), NYSE American LLC ("NYSE American"), NYSE Arca, Inc. ("NYSE Arca"), and NYSE Chicago, Inc. ("NYSE Chicago" and together, the "Affiliate SROs"). See *id.* at note 11. Each Affiliate SRO has submitted substantially the same proposed rule change to propose the changes described herein. See SR-NYSE-2020-18, SR-NYSEAmer-2020-19, SR-NYSEArca-2020-22, and SR-NYSECHX-2020-07.

<sup>6</sup> See 83 FR 26314, *supra* note 4.

<sup>7</sup> See NYSE National Rule 7.1(c) through (e). See also NYSE Rule 7.1, NYSE Arca Rules 7.1-E and 7.1-O, NYSE American Rules 7.1E and 901NY, and NYSE Chicago Rule 7.1.

<sup>4</sup> The Exchange initially filed rule changes relating to its co-location services with the Securities and Exchange Commission ("Commission") in May 2018. See Securities Exchange Act Release No. 83351 (May 31, 2018), 83 FR 26314 (June 6, 2018) (SR-NYSE-2018-07).

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

<sup>2</sup> 15 U.S.C. 78a.

<sup>3</sup> 17 CFR 240.19b-4.