

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

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any unsolicited written comments from Members or other interested parties.

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

Within 45 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission will: (a) By order approve or disapprove such proposed rule change, or (b) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

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

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include File Number SR-BYX-2016-03 on the subject line.

Paper Comments

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

All submissions should refer to File Number SR-BYX-2016-03. 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 Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than

those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for Web site 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 will also be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-BYX-2016-03 and should be submitted on or before March 21, 2016.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.⁵⁴

Robert W. Errett,

Deputy Secretary.

[FR Doc. 2016-04251 Filed 2-26-16; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-77209; File No. SR-BATS-2015-94]

Self-Regulatory Organizations; BATS Exchange, Inc.; Notice of Designation of a Longer Period for Commission Action on Proposed Rule Change To List and Trade Shares of the SPDR DoubleLine Emerging Markets Fixed Income ETF of the SSgA Active Trust

February 23, 2016.

On December 28, 2015, BATS Exchange, Inc. ("Exchange") filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² a proposed rule change to list and trade shares of the SPDR® DoubleLine® Emerging Markets Fixed Income ETF of the SSgA Active Trust under BATS Rule 14.11(i). The proposed rule change was published for comment in the **Federal Register** on January 15, 2016.³ The Commission has not received any comments on the proposal.

Section 19(b)(2) of the Act⁴ provides that within 45 days of the publication of

notice of the filing of a proposed rule change, or within such longer period up to 90 days as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding, or as to which the self-regulatory organization consents, the Commission shall either approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether the proposed rule change should be disapproved. The 45th day after publication of the notice for this proposed rule change is February 29, 2016. The Commission is extending this 45-day time period.

The Commission finds it appropriate to designate a longer period within which to take action on the proposed rule change so that it has sufficient time to consider this proposed rule change. Accordingly, the Commission, pursuant to Section 19(b)(2) of the Act,⁵ designates April 14, 2016, as the date by which the Commission shall either approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change (File No. SR-BATS-2015-94).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.⁶

Robert W. Errett,

Deputy Secretary.

[FR Doc. 2016-04247 Filed 2-26-16; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-77205; File No. 4-631]

Joint Industry Plan; Notice of Filing of the Tenth Amendment to the National Market System Plan To Address Extraordinary Market Volatility by BATS Exchange, Inc., BATS Y-Exchange, Inc., Chicago Stock Exchange, Inc., EDGA Exchange, Inc., EDGX Exchange, Inc., Financial Industry Regulatory Authority, Inc., NASDAQ OMX BX, Inc., NASDAQ OMX PHLX LLC, The Nasdaq Stock Market LLC, National Stock Exchange, Inc., New York Stock Exchange LLC, NYSE MKT LLC, and NYSE Arca, Inc.

February 22, 2016.

I. Introduction

On February 19, 2016, Nasdaq, Inc., on behalf of the following parties to the National Market System Plan to Address Extraordinary Market Volatility (the

⁵⁴ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ See Securities Exchange Act Release No. 76862 (Jan. 11, 2016), 81 FR 2282.

⁴ 15 U.S.C. 78s(b)(2).

⁵ *Id.*

⁶ 17 CFR 200.30-3(a)(31).

“Plan”):¹ BATS Exchange, Inc., BATS Y-Exchange, Inc., Chicago Stock Exchange, Inc., EDGA Exchange, Inc., EDGX Exchange, Inc., Financial Industry Regulatory Authority, Inc. (“FINRA”), NASDAQ OMX BX, Inc., NASDAQ OMX PHLX LLC, the Nasdaq Stock Market LLC, National Stock Exchange, Inc., the New York Stock Exchange LLC, NYSE MKT LLC, and NYSE Arca, Inc. (collectively with the FINRA, the “Participants”), filed with the Securities and Exchange Commission (“Commission”) pursuant to Section 11A of the Securities Exchange Act of 1934 (“Act”)² and Rule 608 thereunder,³ a proposal to amend the Plan (“Tenth Amendment”).⁴ The proposal reflects changes unanimously approved by the Participants. The Tenth Amendment proposes to extend the pilot for one year and to make one modification to the Plan, as discussed below. A copy of the Plan, as proposed to be amended is attached as Exhibit A

¹ 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 (Jun. 6, 2012) (File No. 4–631) (“Approval Order”). On February 26, 2013, the Commission published for immediate effectiveness the Second Amendment to the Plan. *See* Securities Exchange Act Release No. 68953 (Feb. 20, 2013), 78 FR 13113. On April 3, 2013, the Commission approved the Third Amendment to the Plan. *See* Securities Exchange Act Release No. 69287, 78 FR 21483 (Apr. 10, 2013). On September 3, 2013, the Commission published for immediate effectiveness the Fourth Amendment to the Plan. *See* Securities Exchange Act Release No. 70273 (Aug. 27, 2013), 78 FR 54321 (Fourth Amendment). On September 26, 2013, the Commission approved the Fifth Amendment to the Plan. *See* Securities Exchange Act Release No. 70530, 78 FR 60937 (Oct. 2, 2013). On January 13, 2014, the Commission published for immediate effective the Sixth Amendment to the Plan. *See* Securities Exchange Act Release No. 71247 (Jan. 7, 2014), 79 FR 2204 (Sixth Amendment). On April 3, 2014, the Commission approved the Seventh Amendment to the Plan. *See* Securities Exchange Act Release No. 71851, 79 FR 19687 (Apr. 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 (Feb. 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 (Oct. 28, 2015).

² 15 U.S.C. 78k–1.

³ 17 CFR 242.608.

⁴ *See* Letter from Paul Roland, Principal, U.S. Equities, Nasdaq, to Brent Fields, Secretary, Commission, dated February 18, 2016. (“Transmittal Letter”). This February letter replaces and supersedes, in its entirety, the letter dated October 22, 2015 from Christopher B. Stone, FINRA, to Brent J. Fields, Secretary, SEC, (proposing a tenth amendment to the Plan).

hereto. The Commission is publishing this notice to solicit comments from interested persons on the Tenth Amendment.⁵

II. Description of the Plan

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

A. Statement of Purpose and Summary of the Plan Amendment

The Participants filed the Plan on April 5, 2011, to create a market-wide Limit Up-Limit Down (“LULD”) mechanism intended to address extraordinary market volatility in NMS Stocks, as defined in Rule 600(b)(47) of Regulation NMS under the Exchange Act. The Plan sets forth procedures that provide for market-wide LULD requirements that prevent trades in individual NMS Stocks from occurring outside of the specified Price Bands.⁸ The LULD 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 the type of sudden price movements that the market experienced on the afternoon of May 6, 2010.

As set forth in more detail in the Plan, all Trading Centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to comply with the requirements specified in the Plan. More specifically, the single plan processor responsible for consolidation of information for an NMS Stock pursuant to Rule 603(b) of Regulation NMS under the Exchange Act will be responsible for calculating and disseminating a Lower Price Band and Upper Price Band, as provided for in Section V of the Plan. Section VI of the

Plan sets forth the LULD requirements of the Plan, and in particular, that 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, consistent with the Plan.

The Plan was initially approved for a one-year pilot period, which began on April 8, 2013.⁹ Accordingly, the pilot period was scheduled to end on April 8, 2014. As initially contemplated, the Plan would have been fully implemented across all NMS Stocks within six months of initial Plan operations, which meant there would have been full implementation of the Plan for six months before the end of the pilot period. However, pursuant to the Fourth Amendment to the Plan,¹⁰ the Participants modified the implementation schedule of Phase II of the Plan to extend the time period as to when the Plan would fully apply to all NMS Stocks. Accordingly, the Plan was not implemented across all NMS Stocks until December 8, 2013. Pursuant to the Sixth Amendment to the Plan,¹¹ which further modified the implementation schedule of Phase II of the Plan, the date for full implementation of the Plan was moved to February 24, 2014.

In addition, pursuant to the Seventh Amendment to the Plan,¹² the pilot period was extended from April 8, 2014 to February 20, 2015, and submission of the assessment of the Plan operations was accordingly extended to September 30, 2014. Without such extension, the Plan would have been in effect for the full trading day for less than two months before the end of the pilot period. The Participants believed that this short period of full implementation of the Plan would have provided insufficient time for both the Participants and the Commission to assess the impact of the Plan and determine whether the Plan should be modified prior to approval on a permanent basis.

⁵ 17 CFR 242.608.

⁶ *See* 17 CFR 242.608(a)(4) and (a)(5).

⁷ *See* Transmittal Letter, *supra* note 4.

⁸ Unless otherwise specified, the terms used herein have the same meaning as set forth in the Plan.

⁹ *See* Section VIII of the Plan.

¹⁰ *See supra* note 1.

¹¹ *See id.*

¹² *See id.*

The Commission set forth in its Approval Order a number of criteria for use in assessing the impact of the Plan and calibration of the Percentage Parameters. The Supplemental Joint Assessment prepared by Professor James J. Angel (“Angel Report”)¹³ and the various studies by the Participants were designed to address each of these criteria and provide data-driven support for any proposed recommendations. On September 29, 2014, the Participants submitted a Participant Impact Assessment,¹⁴ which provided the Commission with the Participants’ initial observations in each area required to be addressed under Appendix B to the Plan. On May 28, 2015, the Participants submitted a Supplemental Joint Assessment, in which the Participants recommended that the Plan be adopted as permanent, with certain modifications, and discussed the areas of analysis set forth in Appendix B to the Plan.¹⁵ On August 14, 2015, Commission staff communicated that the Participants must, among other things, provide additional analysis required pursuant to Appendix B.III.H of the Plan and consider alternative approaches to proposed changes.¹⁶

(1) Executive Summary

The Participants propose to amend the Plan to extend the pilot period of the Plan to April 21, 2017 with one modification to improve the operation of the Plan. Specifically, the Participants propose to modify the definition of Opening Price in cases where a security does not trade in the opening auction on the Primary Listing Exchange, which changes the manner in which the Reference Price of the day is determined.

Currently under the Plan, if a security opens on the Primary Listing Exchange with a quotation because no trade is executed in the opening auction, the first Reference Price for such security would be the bid and ask mid-point of such quotations on the Primary Listing Exchange (“BAM”). After reviewing the data obtained from multiple analyses, the Participants recommend revising the current methodology for determining the initial Reference Price to a methodology that uses 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.

The Participants believe that this proposed modification to the manner in which the first Reference Price of the trading day is determined will improve the operation of the Plan’s Trading Pause mechanism, so that Trading Pauses remain meaningful events that are indicative of potential volatility in the paused security.

Below the Participants also present additional analyses regarding whether Trading Pauses are too long or short and whether the reopening procedures should be adjusted. The Participants are not recommending any changes to the length of Trading Pauses or to the reopening procedures at this time, as further discussed below.

Last, the Participants are proposing to reorder three defined terms under Section I, which are currently not in alphabetical order. Specifically, the term “Reference Price” currently follows the defined terms “Regular Trading Hours” and “Regulatory Halt.” In keeping with the convention of the definitions section, the Participants are placing these terms in alphabetically order.

(2) Supplementary Analysis on the Length of Trading Pauses and Reopening Procedures

As discussed above, as required by the Plan, the Participants submitted a Participant Impact Assessment and a subsequent Supplemental Joint Assessment, in which the Participants discussed the areas of analysis set forth in Appendix B.III of the Plan. The Commission staff requested that the Participants present additional analysis on the operation of the Plan, particularly regarding Item H of Section III of Appendix B, which required that the Participants assess whether the Trading Pauses are too long or short and whether the reopening procedures should be adjusted.¹⁷

To this end, the Primary Listing Exchanges undertook a study to assess the current Plan Parameters around Trading Pauses and reopenings as well as the potential for repeat pauses. The statistical evidence suggests that the

current Plan parameters around reopenings are sufficient to promote liquidity in securities following a Trading Pause under the Plan. Although most Trading Pauses end within five minutes, the Plan permits the Primary Listing Exchange to extend the Trading Pause to 10 minutes. Following the ten minute period, market participants may resume trading, even if the Primary Listing Exchange has not reopened the security and has published a non-regulatory order imbalance halt.

(a) Nasdaq-Listed Securities

The operation of LULD during reopenings reflects the same strengths and weaknesses as trading at other times of day for subject securities. Thus, active stocks that have temporary market disruptions reopen with active participation and effective price discovery as they do at the start of the trading day (and during continuous trading). Likewise, stocks experiencing extreme price uncertainty often have price variation before and after a Trading Pause and sometimes pause repeatedly. Inactive stocks that pause often lack investor trading interest, leading to insufficient participation in reopening crosses.

The majority of securities that experience Trading Pauses currently reopen without any trades occurring in the reopening cross (3,916 out of 4,726 cases in Nasdaq-listed securities from January through August 2015, or 83% (see Table 1)). Such securities typically have very low volume and relatively wide spreads, and, therefore, the BAM Reference Price is away from the last sale price. Frequently, these securities also lack an opening cross on the day on which the pause occurs.

Trading volume in these securities following a Trading Pause typically is very low, with a mean of 264 shares and a median of zero shares over the five minute-period following the pause. In about a third of cases (36%), these securities pause again within the next five minutes because they continue to have little trading interest and Reference Prices that are not indicative of the current market for the security. Price volatility for these securities is low because they infrequently trade.

¹³ See Letter from Christopher B. Stone, Vice President, FINRA, to Brent J. Fields, Secretary, SEC, dated May 28, 2015 and accompanying Supplemental Joint Assessment, prepared by Professor James Angel (the “Supplemental Joint Assessment” or “Angel Report”). This report is

available for public viewing at <http://www.sec.gov/comments/4-631/4-631.shtml>.

¹⁴ See Joint SROs letter to Brent J. Fields, Secretary, SEC, dated September 29, 2014 (“Participant Impact Assessment”).

¹⁵ See *supra* note 13.

¹⁶ See Letter from Stephen Luparello, Director, Division of Trading Markets, to Christopher B. Stone, Chairman of the Plan Operating Committee, dated August 14, 2015 (“Luparello Letter”).

¹⁷ See Luparello Letter.

Table 1: Nasdaq Listed LULD Trading Pauses

| Nasdaq-listed LULD halts Jan-Aug 2015, relationship between cross size and activity within 5 minutes of re-open | | | | | | | | |
|--|----------------|-------|---|-------------------------|-----------|------------------------------|--------|--------|
| Cross Size Group | Count of halts | Pct | Percent of cases that halt again within 5 minutes | Volume within 5 minutes | | Price range within 5 minutes | | Median |
| | | | | Mean | Median | Mean | Median | |
| 0 Shares | 3,916 | 82.9% | 36.2% | 264 | 0 | 2% | 0% | |
| 1 - 100 shares | 199 | 4.2% | 4.5% | 318 | 10 | 2% | 0% | |
| 101 - 1,000 shares | 326 | 6.9% | 4.9% | 1,309 | 11 | 4% | 1% | |
| 1,001 - 10,000 shares | 168 | 3.6% | 20.2% | 21,104 | 2,362 | 8% | 7% | |
| 10,001 - 100,000 shares | 105 | 2.2% | 48.6% | 349,543 | 182,195 | 16% | 14% | |
| > 100,000 shares | 12 | 0.3% | 41.7% | 1,557,825 | 1,355,777 | 11% | 11% | |
| Total | 4,726 | | 32.4% | | | | | |
| Nasdaq-listed LULD halts Jan-Aug 2015, relationship between cross size and activity within 5 minutes of re-open (without Aug 24) | | | | | | | | |
| Cross Size Group | Count of halts | Pct | Percent of cases that halt again within 5 minutes | Volume within 5 minutes | | Price range within 5 minutes | | Median |
| | | | | Mean | Median | Mean | Median | |
| 0 Shares | 3,854 | 85.0% | 36.3% | 261 | 0 | 2% | 0% | |
| 1 - 100 shares | 190 | 4.2% | 4.2% | 329 | 20 | 2% | 0% | |
| 101 - 1,000 shares | 284 | 6.3% | 3.9% | 1,205 | 1 | 4% | 1% | |
| 1,001 - 10,000 shares | 113 | 2.5% | 14.2% | 25,278 | 1,583 | 8% | 6% | |
| 10,001 - 100,000 shares | 84 | 1.9% | 45.2% | 407,615 | 214,899 | 15% | 15% | |
| > 100,000 shares | 7 | 0.2% | 28.6% | 2,199,927 | 3,093,142 | 12% | 11% | |
| Total | 4,532 | | 32.5% | | | | | |
| Nasdaq-listed LULD halts Jan-Aug 2015, relationship between cross size and activity within 5 minutes of re-open (Aug 24 only) | | | | | | | | |
| Cross Size Group | Count of halts | Pct | Percent of cases that halt again within 5 minutes | Volume within 5 minutes | | Price range within 5 minutes | | Median |
| | | | | Mean | Median | Mean | Median | |
| 0 Shares | 62 | 32.0% | 30.6% | 429 | 0 | 2% | 0% | |
| 1 - 100 shares | 9 | 4.6% | 11.1% | 82 | 1 | 0% | 0% | |
| 101 - 1,000 shares | 42 | 21.6% | 11.9% | 2,013 | 200 | 8% | 8% | |
| 1,001 - 10,000 shares | 55 | 28.4% | 32.7% | 12,529 | 4,690 | 8% | 7% | |
| 10,001 - 100,000 shares | 21 | 10.8% | 61.9% | 117,253 | 15,536 | 19% | 12% | |
| > 100,000 shares | 5 | 2.6% | 60.0% | 658,883 | 349,766 | 10% | 6% | |
| Total | 194 | | 30.4% | | | | | |

Securities that have small reopening crosses (*i.e.*, cross sizes up to 1,000 shares in Table 1) are less likely to pause again (less than 5% of the time during the first five minutes following a Trading Pause) than securities that reopen without a trade. These securities also have relatively stable prices despite their low volumes.

The behavior of stocks that have larger reopening crosses (*i.e.*, above 1,000 shares and especially above 10,000 shares) suggests news driven volatility. In particular, securities with a trade size of more than 1,000 shares in the reopening cross were much more

likely to halt again in the next five minutes than securities with trade sizes of 1,000 shares or less in the reopening cross. These securities are more likely to trade actively and experience greater price variation in the subsequent five minutes and, therefore, are more likely to pause again within the next five minutes, reflecting continued price uncertainty. However, reopening crosses with more than 1,000 shares are less common, making up about 6% of pauses.

i. Market Conditions

Participants also considered whether market conditions stabilized after

Trading Pauses. Nasdaq compared spreads before and after each Pause (*see* Table 2). For example, Tier 1 Nasdaq-listed securities that have a reopening cross, relative quoted spreads averaged less than 1% at the time of the Pause (63 basis points), widened after the pause, but returned to 10–20 basis points 15 minutes later (10–20 basis points is \$0.01–\$0.02 on a \$10 stock). Tier 1 securities that do not have an auction and Tier 2 stocks follow a similar pattern, but with wider average spreads. The results are consistent with the impact and recovery from a news event or temporary lack of liquidity.

Table 2: Relative Quoted Spreads around LULD Trading Pauses

| Relative quoted spreads around halts, Nasdaq-listed, Jan 2 - Aug 31, 2015 | | | | | | | | | |
|---|------------------|----------------------|------------|----------------|------------------|---------------------|------------|----------------|------------------|
| Tier | Re-opening cross | Average spread in BP | | | | Median spread in BP | | | |
| | | At halt | At re-open | After 1 minute | After 15 minutes | At halt | At re-open | After 1 minute | After 15 minutes |
| 1 | Yes | 63 | 181 | 72 | 13 | 74 | 334 | 112 | 22 |
| 1 | No | 853 | 2,136 | 1,825 | 777 | 595 | 1,963 | 484 | 88 |
| 2 | Yes | 433 | 634 | 365 | 312 | 464 | 1,051 | 1,052 | 786 |
| 2 | No | 8,719 | 4,898 | 3,832 | 2,659 | 3,120 | 3,207 | 1,611 | 937 |

| Relative quoted spreads around halts, Nasdaq-listed, Jan 2 - Aug 31, 2015; August 24th removed | | | | | | | | | |
|--|------------------|----------------------|------------|----------------|------------------|---------------------|------------|----------------|------------------|
| Tier | Re-opening cross | Average spread in BP | | | | Median spread in BP | | | |
| | | At halt | At re-open | After 1 minute | After 15 minutes | At halt | At re-open | After 1 minute | After 15 minutes |
| 1 | Yes | 57 | 127 | 125 | 11 | 2 | 34 | 51 | 16 |
| 1 | No | 853 | 2,136 | 1,825 | 777 | 595 | 1,963 | 484 | 88 |
| 2 | Yes | 329 | 454 | 316 | 313 | 437 | 1,035 | 1,024 | 815 |
| 2 | No | 8,889 | 4,966 | 3,898 | 2,698 | 3,165 | 3,207 | 1,601 | 932 |

| Relative quoted spreads around halts, Nasdaq-listed, August 24, 2015 only | | | | | | | | | |
|---|------------------|----------------------|------------|----------------|------------------|---------------------|------------|----------------|------------------|
| Tier | Re-opening cross | Average spread in BP | | | | Median spread in BP | | | |
| | | At halt | At re-open | After 1 minute | After 15 minutes | At halt | At re-open | After 1 minute | After 15 minutes |
| 1 | Yes | 217 | 817 | 315 | 114 | 160 | 462 | 197 | 27 |
| 1 | No | - | - | - | - | - | - | - | - |
| 2 | Yes | 1,669 | 1,991 | 1,863 | 1,185 | 706 | 1,271 | 1,241 | 543 |
| 2 | No | 7,268 | 7,610 | 3,331 | 2,769 | 2,005 | 3,220 | 1,654 | 1,417 |

Note: Means in these tables are weighted across stocks by average daily volume.

Nasdaq also looked at how prices converge toward the national best bid-ask ("NBBO") midpoint 15 minutes after a reopening (Table 3). For example, Tier 1 stocks that have a reopening cross (not including August 24th) approached the benchmark relatively smoothly. The

reopening cross averaged within 4% of the benchmark and the NBBO midpoint a minute after reopening was within 2% of the benchmark.

Tier 1 stocks that did not have a reopening cross and Tier 2 stocks approach the benchmark more erratically. As a sign of the sustained

lack of liquidity in many of these situations, the BAM often remains far from where it will be 15 minutes after the reopen. The reopening cross price, when it occurs, is on average much closer to the benchmark than the BAM even a minute after the reopen.

Table 3: Bid-Ask Mid-Points and Reopening Price Comparison

| Bid-ask midpoints and re-opening price compared, Nasdaq-listed, Jan 1 - Aug 31, 2015 | | | | | | | | | |
|--|------------------|---|------------------|-------------------|-------------------------------|---|------------------|-------------------|-------------------------------|
| Tier | Re-opening cross | Mean difference from BAM 15 minutes after halt (basis points) | | | | Median difference from BAM 15 minutes after halt (basis points) | | | |
| | | BAM at time of halt | Re-opening cross | BAM at re-opening | BAM 1 minute after re-opening | BAM at time of halt | Re-opening cross | BAM at re-opening | BAM 1 minute after re-opening |
| 1 | Yes | 876 | 657 | 631 | 528 | 841 | 583 | 635 | 504 |
| 1 | No | 506 | | 751 | 470 | 340 | | 774 | 72 |
| 2 | Yes | 145,455 | 1,653 | 32,080 | 3,775 | 586 | 613 | 393 | 161 |
| 2 | No | 24,586,581 | | 24,843,028 | 405,303 | 2,080 | | 797 | 34 |

| Bid-ask midpoints and re-opening price compared, Nasdaq-listed, Jan 1 - Aug 31, 2015; August 24th removed | | | | | | | | | |
|---|------------------|---|------------------|-------------------|-------------------------------|---|------------------|-------------------|-------------------------------|
| Tier | Re-opening cross | Mean difference from BAM 15 minutes after halt (basis points) | | | | Median difference from BAM 15 minutes after halt (basis points) | | | |
| | | BAM at time of halt | Re-opening cross | BAM at re-opening | BAM 1 minute after re-opening | BAM at time of halt | Re-opening cross | BAM at re-opening | BAM 1 minute after re-opening |
| 1 | Yes | 465 | 355 | 332 | 187 | 310 | 311 | 215 | 153 |
| 1 | No | 506 | | 751 | 470 | 340 | | 774 | 72 |
| 2 | Yes | 163,859 | 1,624 | 35,997 | 4,079 | 545 | 555 | 354 | 134 |
| 2 | No | 25,166,311 | | 25,429,359 | 414,856 | 2,107 | | 797 | 32 |

| Bid-ask midpoints and re-opening price compared, Nasdaq-listed, August 24, 2015 only | | | | | | | | | |
|--|------------------|---|------------------|-------------------|-------------------------------|---|------------------|-------------------|-------------------------------|
| Tier | Re-opening cross | Mean difference from BAM 15 minutes after halt (basis points) | | | | Median difference from BAM 15 minutes after halt (basis points) | | | |
| | | BAM at time of halt | Re-opening cross | BAM at re-opening | BAM 1 minute after re-opening | BAM at time of halt | Re-opening cross | BAM at re-opening | BAM 1 minute after re-opening |
| 1 | Yes | 1,366 | 1,084 | 1,096 | 915 | 1,257 | 801 | 872 | 747 |
| 1 | No | | | | | | | | |
| 2 | Yes | 1,473 | 1,615 | 1,150 | 1,043 | 814 | 964 | 669 | 367 |
| 2 | No | 1,717,708 | | 11,927 | 4,743 | 1,058 | | 794 | 491 |

Note: Means in these tables are weighted across stocks by average daily volume.

ii. Repeat Pauses

The frequency of repeated Trading Pauses in a single stock is an area of concern. From January to August 2015, 1,532 securities representing 33% of Nasdaq-listed stocks paused within five minutes of a previous pause (Table 3). Most of the pauses were in Tier 2 stocks that had little or no trading, and the Trading Pauses frequently were caused by Reference Prices that were not indicative of the current market.

There were about 100 cases that occurred in more active Nasdaq-listed stocks. One interpretation of repeat Trading Pauses in actively-traded stocks is that it reflects continued uncertainty and price volatility that cannot be avoided. Another interpretation is that the current LULD Trading Pause process can be improved.

A possible course to address these types of occurrences would be to extend the time the Primary Listing Exchange has to complete the reopening auction beyond 10 minutes and to examine whether price volatility declines. The hope would be that, with additional time, market participants would arrive at a price level that would remain stable after the reopen.

However, the data indicates that extending the duration of a Trading Pause would be unlikely to result in additional liquidity or the elimination of price instability and repeat pauses. First, 15 out of 55 Trading Pauses in Tier 1 Nasdaq-listed stocks occurred within five minutes of the opening cross, which is a very active price discovery process lasting longer than five minutes. If the opening cross of the

day often cannot address all concerns regarding price volatility, the Participants believe it is unlikely that extending pause durations would significantly reduce volatility.

Second, Nasdaq currently extends the duration of Trading Pauses in its stocks under certain conditions (see Table 4). This occurred in 58 cases between January and August 2015. The mean and median lengths of these delays were four and one minute, respectively. During the delays, the mean and median net numbers of orders entered (new orders less cancels) were 16 and three. The mean and median net new shares were 12,310 and 2,010. Despite the delay, in 24 of these cases, there was another pause within five minutes of the delayed reopen.

Table 4: Delayed Reopening Crosses

| Outcome of delayed re-opening crosses in Nasdaq-listed stocks, Jan-Aug 2015 | | | | | | |
|---|---------|--------------|--------|--------|--------------|---------|
| Number of cases | 58 | | | | | |
| Number of cases with a re-opening cross | 53 | | | | | |
| Number of cases that halt again within 5 minutes | 24 | | | | | |
| <u>Summary statistics of 58 cases:</u> | | | | | | |
| | Minimum | 1st Quartile | Median | Mean | 3rd Quartile | Max |
| Number of minutes delay | <1 | 1 | 1 | 5 | 4 | 38 |
| Number of orders entered | 0 | 5 | 14 | 47 | 29 | 831 |
| Number of orders cancelled | 0 | 2 | 11 | 30 | 21 | 795 |
| Net number of orders entered | -7 | 0 | 3 | 16 | 10 | 221 |
| Number of shares entered | 0 | 924 | 4,167 | 41,330 | 18,150 | 860,600 |
| Number of shares cancelled | 0 | 448 | 2,010 | 12,310 | 6,906 | 214,000 |
| Net number of shares entered | -9,010 | -70 | 233 | 29,020 | 8,471 | 674,500 |
| Size of cross | 0 | 100 | 1,000 | 22,160 | 5,841 | 654,400 |
| Note: The summary statistics for orders/shares entered, cancelled and net are independently calculated from the cases and therefore do not sum across rows. | | | | | | |

Another course to address repeat Trading Pauses is to widen the Price Bands temporarily after reopening the stock. While this would reduce the number of repeat pauses, it works against the goal of containing volatility.

A further alternative is to widen the Price Band on the recovery side, to allow the price to return to where it was before the previous pause without pausing again. The Participants find that these adjustments to Price Bands should

be considered as part of future consideration of adjusting Price Bands to minimize volatility.

(b) NYSE-Listed Securities

Table 5: NYSE Reopenings H1:2015

| Table 5a: NYSE Reopenings H1 2015 | | | | | | | | | | Medians: Spread Change versus pre-Halt | | | |
|-----------------------------------|----------|------|---------|--------|-------------|------------------|-------------------|------------------|-------------------|---|-----------|------------|-------------|
| Listing | Exchange | Tier | Auction | Count | Mdn. Shares | Mdn. Sprd. Prior | Mdn. Sprd. Reopen | Mdn. Sprd. 1-min | Mdn. Sprd. 15 min | Mdn. Time to Reopen | At Reopen | Post 1-min | Post 15-min |
| NYSE | 1 | Y | 19 | 57,488 | \$0.010 | \$0.070 | \$0.080 | \$0.030 | 05:18 | \$0.060 | \$0.070 | \$0.020 | |
| NYSE | 1 | N | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| NYSE | 2 | Y | 17 | 7,500 | \$0.020 | \$0.090 | \$0.090 | \$0.060 | 05:19 | \$0.070 | \$0.070 | \$0.040 | |
| NYSE | 2 | N | 34 | N/A | \$8.910 | \$1.190 | \$0.790 | \$0.350 | 05:14 | -\$7.720 | -\$8.120 | -\$8.560 | |

| Table 5b: NYSE Reopenings August 24, 2015 | | | | | | | | | | Medians: Spread Change versus pre-Halt | | | |
|---|----------|------|---------|-------|-------------|------------------|-------------------|------------------|-------------------|---|-----------|------------|-------------|
| Listing | Exchange | Tier | Auction | Count | Mdn. Shares | Mdn. Sprd. Prior | Mdn. Sprd. Reopen | Mdn. Sprd. 1-min | Mdn. Sprd. 15 min | Mdn. Time to Reopen | At Reopen | Post 1-min | Post 15-min |
| NYSE | 1 | Y | 28 | 4,950 | \$0.110 | \$0.650 | \$0.230 | \$0.055 | 06:07 | \$0.540 | \$0.120 | -\$0.055 | |
| NYSE | 1 | N | 1 | N/A | \$0.110 | \$0.030 | \$0.050 | \$0.020 | 05:35 | -\$0.080 | -\$0.060 | -\$0.090 | |
| NYSE | 2 | Y | 31 | 1,129 | \$0.530 | \$0.660 | \$0.220 | \$0.170 | 06:11 | \$0.130 | -\$0.310 | -\$0.360 | |
| NYSE | 2 | N | 18 | N/A | \$3.645 | \$0.955 | \$0.795 | \$0.450 | 05:05 | -\$2.690 | -\$2.850 | -\$3.195 | |

Table 5 above shows the record of Trading Pauses and reopenings on the NYSE during the first half of 2015 and on August 24, 2015. The data excludes pauses in the last 10 minutes of trading, where the only trade possible was the closing auction trade executed pursuant to established closing procedures.

Throughout the first half of 2015, there were 19 Trading Pauses in Tier 1 NYSE-listed securities and 51 in Tier 2 NYSE-listed securities. All of the pauses in Tier 1 securities resulted in a reopening auction, but only 1/3 of pauses in Tier 2 securities resulted in a reopening auction.

On August 24, 2015, 28 of the 29 pauses in Tier 1 NYSE-listed securities reopened with an auction. This included NYSE opening auctions that followed a Trading Pause at 9:35 a.m.¹⁸ which NYSE categorizes as a regular open, but is a reopening from a Plan perspective. Some of these opens

occurred following a subsequent order imbalance halt. An analysis of the pauses in Tier 1 securities would be unhelpful because it is not possible to obtain statistical significance comparing the market quality of the 28 securities that executed a reopening auction to the one security that did not.

Tier 2 NYSE-listed securities that entered a Trading Pause during the first half of 2015 reopened with an auction 1/3 of the time. Many of the Tier 2 securities that were subjected to a pause were extremely illiquid (*e.g.*, preferred and when-issued securities), with very wide spreads prior to the pause, indicative of data outliers. The data do show that spreads narrowed for Tier 2 securities within 15 minutes after reopening regardless of whether the security reopened with an auction.

In addition, the data for the first half of 2015 show that the median time to reopen Tier 2 securities after a pause

were not appreciably different than the median time to reopen Tier 1 securities, all of which opened with an auction (Table 6). The Tier 2 securities that reopened without an auction following a pause were generally extremely illiquid. As shown in Table 6 below, the median number of days these symbols traded on the NYSE was 79 out of 124 trading days in the first half of 2015, and the median number of trades per day on the NYSE was only 7.4 trades with a median NYSE average daily volume of 2,281 shares. The Participants do not believe that extending the auction time for such illiquid securities would be likely to attract additional trading interest. Nevertheless, when there is a substantial order imbalance, waiting longer than five minutes may be useful, as would issuing an order imbalance halt after 10 minutes if deemed necessary.

Table 6: Trading Summary of Tier 2 Securities without Reopening Auctions H1:2015

| Distinct Symbols | Halts | Median Days Eligible to Trade | Median Days Traded | Median NYSE Avg. Daily Trades | Median NYSE Avg. Daily Volume |
|------------------|-------|-------------------------------|--------------------|-------------------------------|-------------------------------|
| 24 | 27 | 124 | 79 | 7.4 | 2,281 |

Of the 49 pauses in Tier 2 securities on August 24, 2015, 31 securities reopened with an auction (some of which were categorized by NYSE as regular opening auctions). Three very high-priced Tier 2 securities partially skew the results, as well as several

preferred stocks. If such securities are excluded, the median pre-pause spread in the remaining nine securities was \$0.76, while the reopening, one-minute and 15-minute spreads were \$0.80, \$0.65 and \$0.54, respectively. This data shows continued tightening following

the reopening, and the Participants reiterate that extending the time to reopen would be unlikely to significantly alter the results.

NYSE Arca-Listed Securities

¹⁸ All times refer to Eastern Standard Time unless otherwise noted.

Table 7: NYSE Arca Reopenings H1:2015

| Table 7a NYSE Arca Reopenings: H1 2015 | | | | | | | | | | | Medians: | | |
|--|------|---------|-------|-------------|------------------|-------------------|------------------|-------------------|---------------------|-----------|-------------------------------|-------------|--|
| Listing | | | | | | | | | | | Spread Change versus pre-Halt | | |
| Exchange | Tier | Auction | Count | Mdn. Shares | Mdn. Sprd. Prior | Mdn. Sprd. Reopen | Mdn. Sprd. 1-min | Mdn. Sprd. 15 min | Mdn. Time to Reopen | At Reopen | Post 1-min | Post 15-min | |
| NYSE Arca | 1 | Y | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| NYSE Arca | 1 | N | 18 | N/A | \$0.815 | \$0.100 | \$0.060 | \$0.050 | 05:39 | -\$0.715 | -\$0.755 | -\$0.765 | |
| NYSE Arca | 2 | Y | 29 | 100 | \$2.410 | \$1.300 | \$0.790 | \$0.250 | 05:11 | -\$1.110 | -\$1.620 | -\$2.160 | |
| NYSE Arca | 2 | N | 1469 | N/A | \$2.100 | \$0.840 | \$0.130 | \$0.110 | 05:45 | -\$1.260 | -\$1.970 | -\$1.990 | |

| Table 7b NYSE Arca Reopenings: August 24, 2015 | | | | | | | | | | | Medians: | | |
|--|------|---------|-------|-------------|------------------|-------------------|------------------|-------------------|---------------------|-----------|-------------------------------|-------------|--|
| Listing | | | | | | | | | | | Spread Change versus pre-Halt | | |
| Exchange | Tier | Auction | Count | Mdn. Shares | Mdn. Sprd. Prior | Mdn. Sprd. Reopen | Mdn. Sprd. 1-min | Mdn. Sprd. 15 min | Mdn. Time to Reopen | At Reopen | Post 1-min | Post 15-min | |
| NYSE Arca | 1 | Y | 635 | 2,604 | \$0.600 | \$1.600 | \$3.295 | \$1.360 | 05:43 | \$1.000 | \$2.695 | \$0.760 | |
| NYSE Arca | 1 | N | 65 | N/A | \$1.680 | \$2.020 | \$2.635 | \$0.990 | 05:38 | \$0.340 | \$0.955 | -\$0.690 | |
| NYSE Arca | 2 | Y | 118 | 304 | \$1.795 | \$3.155 | \$4.990 | \$2.680 | 05:38 | \$1.360 | \$3.195 | \$0.885 | |
| NYSE Arca | 2 | N | 181 | N/A | \$2.910 | \$3.280 | \$3.065 | \$1.695 | 05:38 | \$0.370 | \$0.155 | -\$1.215 | |

During the first half of 2015, there were 27 pauses in NYSE Arca-listed Tier 1 ETPs. Table 7a, however, only includes data from 18 Tier 1 NYSE Arca-listed ETPs because the Participants excluded nine pauses that occurred on March 31, 2015 in the UTG to ZSML range, as NYSE Arca had quoting and reopening issues in those securities that day. These 18 Tier 1 ETPs have very low volume and are only categorized as Tier 1 securities because of a few high volume days.

With regard to the 1,498 Tier 2 NYSE Arca-listed ETPs that were paused during the first half of 2015, over 98% did not reopen with an auction. However, such Tier 2 ETPs that did not reopen with an auction saw spreads tighten more quickly than those Tier 2 ETPs that did reopen with an auction.

The inability of a security to reopen with an auction may be due to a lack of interest in these very illiquid securities. Table 7a shows that Tier 2 securities that had no auction exhibited tighter median spreads pre-pause, at reopen, post one-minute and post 15-minutes than those Tier 2 securities that did reopen with an auction.

Based on this data, there is little basis for a proposal to extend the pause time beyond the current maximum of 10 minutes. Finally, many of the pauses in Tier 2 ETPs occurred early in the trading session and may have been caused by skewed BAM Reference Prices, as illustrated in the discussion of the proposed amendment relating to the methodology for determining the first

Reference Price of the trading day. Accordingly, certain of these pauses may have been avoided with the application of a different initial Reference Price methodology.

On August 24, 2015, trading volumes were much higher than normal, contributing to the ability to reopen substantially more paused securities using auctions. Early in the trading session, several NYSE Arca-listed ETPs paused multiple times in a short period, which may have led ETP liquidity providers to delay entering the market until after 10:00 a.m. The fact that only 150 of the 635 pauses in Tier 1 NYSE Arca-listed securities occurred after 10:00 a.m., and only 36 pauses occurred after 10:15 a.m., appears to reflect the withdrawal of such liquidity providers (see Table 7b).

On August 24, 2015, median spreads following reopening for NYSE Arca-listed ETPs that reopened with an auction continued to be wider than the median pre-pause spreads, even 15 minutes after those paused securities had reopened. However, it should be noted that some securities had more than one pause during the 15-minute period after reopening following the initial pause, which may have impacted median spread data at the post 15-minute mark.

Multiple pauses within 15 minutes of reopening after the initial pause may indicate that some of the median spreads noted in the post 15-minute column actually represent the spread for a pause that occurred shortly after a

secondary pause. This may have impacted the post 15-minute median spread calculation, as it would represent a quote only minutes following the secondary pause (but that was 15 minutes after the initial pause). However, spreads for all NYSE Arca-listed ETPs were substantially tighter at post 15-minutes compared to the spreads at reopening, and the securities that reopened without an auction also had tighter spreads at post 15 minutes compared to pre-pause spreads.

Additional Data—NYSE MKT and BATS

During the first half of 2015 and on August 24, 2015, neither NYSE MKT-listed nor BATS-listed securities experienced a large sample of pauses, making any conclusions based on data from these markets of limited value. NYSE MKT did not have pauses in any Tier 1 securities¹⁹ during the first half of 2015, and averaged only two pauses per month in Tier 2 securities (for a total of 13 pauses, seven of which reopened with auctions). On August 24, 2015, four NYSE MKT securities experienced pauses, with three securities reopening with an auction. BATS-listed securities were paused seven times in the first half of 2015, five of which occurred immediately after the LULD bands narrowed at 9:45 a.m. On August 24, 2015, BATS-listed ETPs were paused three times.

The data from these small samples are inconclusive, but are represented below in Table 8 for completeness:

¹⁹NYSE MKT lists one Tier 1 security. Five of BATS' ETPs are categorized as Tier 1. All BATS-listed securities are ETPs.

Table 8: NYSE MKT Reopenings H1:2015

| Table 8a: NYSE MKT Reopenings: H1 2015 | | | | | | | | | | Medians: Spread Change versus pre-Halt | | |
|--|------|---------|-------|-------------|------------------|-------------------|------------------|-------------------|---------------------|---|------------|-------------|
| Listing Exchange | Tier | Auction | Count | Mdn. Shares | Mdn. Sprd. Prior | Mdn. Sprd. Reopen | Mdn. Sprd. 1-min | Mdn. Sprd. 15 min | Mdn. Time to Reopen | At Reopen | Post 1-min | Post 15-min |
| NYSE MKT | 1 | Y | 0 | N/A | N/A | N/A | N/A | N/A | N/A | | | |
| NYSE MKT | 1 | N | 0 | N/A | N/A | N/A | N/A | N/A | N/A | | | |
| NYSE MKT | 2 | Y | 7 | 2,100 | \$0.050 | \$0.030 | \$0.100 | \$0.070 | 05:13 | -\$0.020 | \$0.050 | \$0.020 |
| NYSE MKT | 2 | N | 6 | N/A | \$0.245 | \$0.325 | \$0.330 | \$0.220 | 05:10 | \$0.080 | \$0.085 | -\$0.025 |

| Table 8b: NYSE MKT Reopenings: August 24, 2015 | | | | | | | | | | Spread Change versus pre-Halt | | |
|--|------|---------|-------|-------------|------------------|-------------------|------------------|-------------------|---------------------|-------------------------------|------------|-------------|
| Listing Exchange | Tier | Auction | Count | Mdn. Shares | Mdn. Sprd. Prior | Mdn. Sprd. Reopen | Mdn. Sprd. 1-min | Mdn. Sprd. 15 min | Mdn. Time to Reopen | At Reopen | Post 1-min | Post 15-min |
| NYSE MKT | 1 | Y | 0 | N/A | N/A | N/A | N/A | N/A | N/A | | | |
| NYSE MKT | 1 | N | 0 | N/A | N/A | N/A | N/A | N/A | N/A | | | |
| NYSE MKT | 2 | Y | 3 | 1,350 | \$0.560 | \$0.380 | \$0.400 | \$0.250 | 05:33 | -\$0.180 | -\$0.160 | -\$0.310 |
| NYSE MKT | 2 | N | 1 | N/A | \$0.630 | \$0.900 | \$0.200 | \$0.200 | 05:18 | \$0.270 | -\$0.430 | -\$0.430 |

(c) Participant's Conclusion on the Length of Trading Pauses and Reopening Procedures

The current LULD rules already permit the Primary Listing Exchange to extend the initial five-minute Trading Pause to 10 minutes. The Participants' data prepared by Nasdaq and NYSE provide no indication that extending Trading Pauses beyond 10 minutes would prevent repeat pauses. Currently, Primary Listing Exchanges may extend the pause duration to 10 minutes in order to optimize the exchange reopening cross process and the Participants believe that this option to extend pause durations should remain part of the Primary Listing Exchange reopening process. However, absent clear evidence that longer pauses have resulted in better post-reopen market quality, the Participants recommend no change to the reopening process as it relates to LULD.

The Primary Listing Exchange may wish to consider extending the reopening auction process following a pause beyond the initial five minutes on a more frequent basis and, in rare cases, may wish to consider calling a non-regulatory Imbalance Halt if the Primary Listing Exchange determines that reopening would add to volatility.²⁰

(3) Modification to Initial Reference Price Methodology

The Plan provides that the first Reference Price for a trading day is the Opening Price on the Primary Listing Exchange if such Opening Price occurs less than five minutes after the start of Regular Trading Hours. However, if the

Primary Listing Exchange opens with quotations, the first Reference Price for a trading day is the BAM.²¹

When the Participants proposed the Plan, several comment letters expressed concern that the application of Price Bands during the opening and closing could be disruptive to price discovery.²² The Participants have assessed the impact of Trading Pauses as well as the quality of trading around Trading Pauses. While the Participants' assessment of the impact of Trading Pauses indicates that the Plan has reduced the frequency of price dislocations in stocks, the Participants also found extensive evidence showing that the vast majority of Trading Pauses that currently occur are in stocks that did not trade at or near the time of the Trading Pause.

The Participants found that the use of the Primary Listing Exchange's BAM often produced a skewed initial Reference Price when trading interest is extremely thin or non-existent, rendering a security illiquid. This scenario occurs when the opening bid-ask quotes are wide or skewed and not indicative of the current market for the security. Back-testing analysis showed that nearly all of these Trading Pauses likely would not have occurred if the first Reference Price for the day was determined using the Primary Listing Exchange's previous closing price instead of the BAM because the BAM of the first quote may not represent fair value in less liquid securities. Therefore, the Participants recommend

revising the current Plan methodology for determining the initial Reference Price to a methodology that uses the closing price of the security on the Primary Listing Exchange on the previous trading day, and if no such closing price exists, the last sale on the Primary Listing Exchange reported to the Processor.

Although market makers do not have obligations prior to a security opening, they will often bracket the market around what they believe to be the fair value of a security. For example, the market maker may determine that a security is likely to open around \$10 and would, before the market opens, enter a bid of \$7 and an offer of \$13. If no other orders enter the market prior to the open, the mid-point would then be \$10, and, even if there is no opening trade, the exchange would establish a valid open Reference Price.

However, if a market participant were to enter an aggressive bid prior to the open for such security at \$10, then the mid-point would become skewed; in this example, the mid-point would be set at \$11.50 for a security with a fair value of \$10. If this were a Tier 2 security, the initial lower limit would be 20% below \$11.50, or \$9.20 (assuming it is not a leveraged ETP), and the upper limit would be set at \$13.80. At 9:45 a.m., the bands would narrow to 10%, which would put the lower band at \$10.35 and the Upper Price Band at \$12.65. If the security should be trading near \$10, this would immediately result in a Trading Pause as the offer attempted to decline below the Lower Price Band of \$10.35.

Another example illustrating the impact of using BAM as the first Reference Price when quotes are not indicative of the security's trading price

²⁰ While other markets may resume trading after 10 minutes, most markets wait until the Primary Listing Exchange has reopened.

²¹ If such trade or quote has not occurred by 9:35 a.m., the open reference price for the trading day is the arithmetic mean price of eligible reported transactions for such price over the preceding five minute time period.

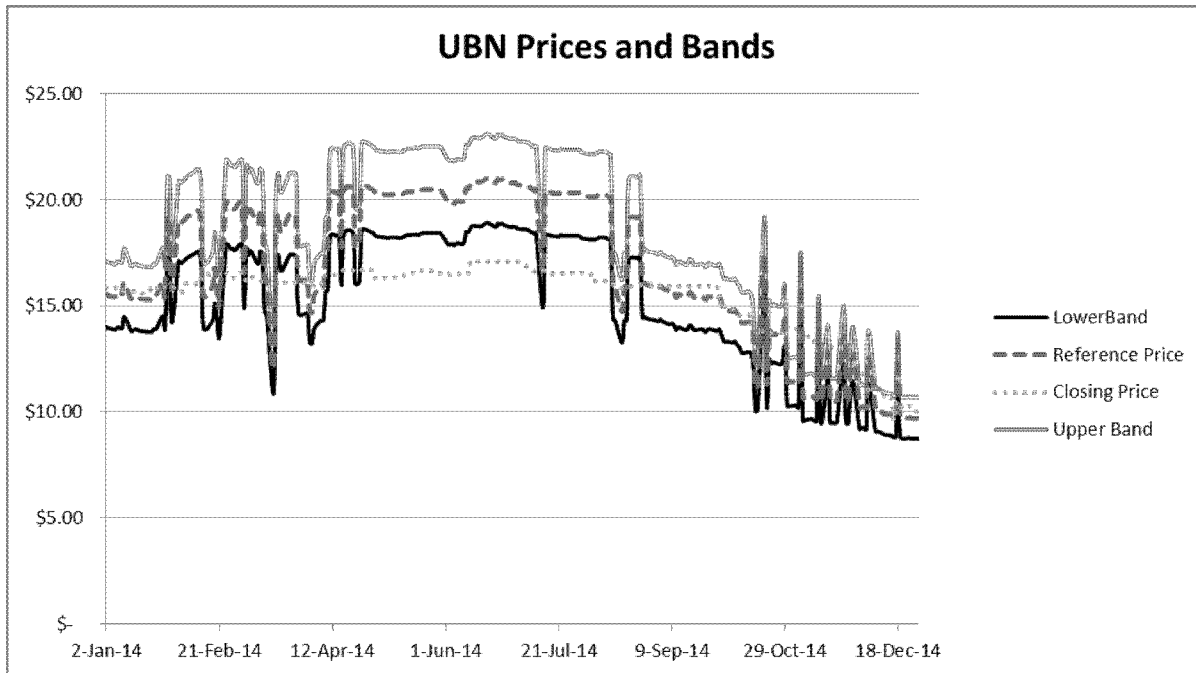
²² See Approval Order, *supra* note 1.

is depicted in the following example and graph (Chart 1).²³ As an example of the BAM deviating from the Reference Price, Professor James J. Angel studied, the UBS ETRACS CMCI Energy Total Return ETN (UBN). Chart 1 below shows the Upper and Lower Price

Bands, with the reference and closing price of the day to display the imbalance between the intraday bands and the closing price. For an extended duration in 2014, the opening Lower Price Band was frequently above the security's closing price. The ETN

experienced 111 Trading Pauses in 2014. The majority of the pauses occurred at 9:45 a.m., just as the Price Bands narrowed from double-wide (20%) to single-wide (10%).

Chart 1: Deviation of BAM from Reference Price



The analysis performed in the Angel Report also directly supports the Participants' observations regarding the need to adjust the procedure for determining an initial Reference Price when there is no trading interest in the opening auction.²⁴ In such cases, the Participants believe the previous closing price generally is a better indication of the current market than a Reference Price based on the BAM. Participants also note that a small number of securities are responsible for a vast majority of Limit States and Straddle States. For example, from the inception of LULD in April 2013 through December 31, 2014, there were approximately two million Limit States, 4.8 million Straddle States and 8,500 Trading Pauses. Approximately 91% of the two million Limit States are accounted for by 50 securities that relied on a Reference Price that was calculated based on the BAM. Further, these securities also were responsible

for as many as 81% of Straddle States and 30% of Trading Pauses.²⁵

The Participants believe that the disproportionately high number of Trading Pauses in stocks that did not trade in the opening cross can reduce market participant attention to Trading Pauses. On volatile days, Trading Pauses in stocks that have not traded distract attention from the smaller number of stocks that are in Limit State or paused because of significant order imbalances. The distraction necessitates an unnecessary filtering requirement that could discourage submission of offsetting trading interest during the Limit State and the reopening auction.

In addition to the analysis contained in the Angel Report, the Participants performed the following data analysis to support the proposed recommendations intended to address the current use of the BAM as the first Reference Price for illiquid securities. Back-testing of securities listed on Nasdaq and NYSE

trading venues has shown that, in stocks that have no opening cross, the previous closing price results in fewer Trading Pauses than the BAM.²⁶

(a) Nasdaq-Listed Securities

Between the start of LULD in 2013 and September 22, 2015, 9,118 Trading Pauses occurred in Nasdaq-listed stocks before they had a trade. In the majority of those cases (5,404), after the Trading Pause was lifted, there were no trades at any point in the entire trading day for the security, which further supports that the pauses were uninformative because they were caused by lack of trading interest, rather than price volatility (Table 9).

Of the cases where there was trading later in the day in the security, in the vast majority of cases, the closing price that day was closer to the previous day's close than the opening BAM. The rows highlighted in red in Table 9 are those where the difference matters most

²³ Analysis and graph provided by Professor James J. Angel.

²⁴ See Angel Report, Section V: The Opening Reference Price Problem.

²⁵ See Angel Report, Table 3: Impact of Bad Reference Prices on Numbers of Observations at page 17.

²⁶ The data was analyzed based on venue to account for differences in the availability and formats of the data from NYSE and Nasdaq.

because the previous close and the opening BAM were very different.

Table 9: Nasdaq Trading Pauses with No Previous Trade

| Nasdaq-listed stocks with LULD pauses when there is no previous trade on the day, 2013 - Aug 31, 2015 | | | | |
|---|--------------|-----------------------------|--|----------------|
| Difference between BAM and previous close | Count | No trade for the entire day | Which reference price option is nearer to closing price on the day | |
| | | | BAM | Previous close |
| A 0%-10% | 532 | 251 | 32 | 249 |
| B >10%-25% | 3,149 | 1,614 | 48 | 1,487 |
| C >25%-50% | 1,084 | 613 | 16 | 455 |
| D >50%-100% | 314 | 192 | 5 | 117 |
| E >100% | 3,820 | 2,515 | 1 | 1,304 |
| F Missing | 219 | 219 | 0 | 0 |
| Total | 9,118 | 5,404 | 102 | 3,612 |

The argument against using the previous closing price is that the BAM is determined in real time and reflects the latest information. This is true when there is trading interest in a stock, but demonstrably not true in the thousands of cases each year when there is no trading interest and quotes are wide. Furthermore, when there is trading interest, stocks are more likely to have an opening cross, which obviates the need to use either the previous closing price or BAM in calculating the initial Reference Price. For example, during 2015 through August 23, approximately 550 Nasdaq-listed stocks opened without an opening cross trade, but on August 24, 2015 there were only 250 such stocks.

Participants undertook back-tests to simulate the impact of the proposed change to the first Reference Price on the number of pauses in Nasdaq-listed securities that were not trading (see Table 10).²⁷

Participants used results for 182 trading days in all Nasdaq-listed LULD-eligible securities that did not have an opening cross (which averaged 526 stocks per day) from January to September 2015. For each stock and trading day, the test lasted from 9:30 a.m. until there was either a trade or a pause in that stock. The Participants tested for Limit States using two alternative Reference Prices: (i) The Reference Price based on the current Plan parameters; and (ii) the Reference Price based on the Primary Listing

Exchange previous close. For this approach there were four possible comparative outcomes: (i) Both resulted in a Limit State and Trading Pause; (ii) neither resulted in a Limit State or Trading Pause; (iii) the current bands resulted in a Limit State and Trading Pause, but the previous close bands did not; and (iv) the previous close bands resulted in a Limit State and Trading Pause, but the current bands did not. Generally, the Participants expected to find that (i) and (ii) cases would be indicative of both Reference Prices having worked equally well and that excessive (iii) and (iv) cases would be indicative of poorly functioning Reference Prices under one alternative or the other.

²⁷ See Appendix A for details on how the back-testing was done.

Table 10: Back Test of Trading Pauses in Stocks with No Opening Cross

| Back-test of halts in stocks without an opening cross, Nasdaq-listed stocks, January 2 - September 22, 2015 | |
|--|--------|
| Days | 182 |
| Total cases (each case is one LULD stock that did not have an opening cross) | 95,655 |
| Average cases / day | 525.6 |
| <u>Results:</u> | |
| Average number of cases per day where neither benchmark would result in a pause | 512.7 |
| Average number of cases per day where both benchmarks would result in a pause | 0.8 |
| Average number of cases where the BAM Reference Price resulted in a pause, but the previous close would not | 10.7 |
| Average number of cases where the previous close may have resulted in a pause, but the BAM Reference Price did not | 1.3 |
| <u>Overall:</u> | |
| Current average number of stocks with pauses after opening on a quote (using BAM) | 12.9 |
| Expected average number of stocks with pauses after opening on a quote (using previous close) | 2.1 |
| Reduction in daily stocks with pauses after opening on a quote | 83% |

On average, 512.7 stocks per day would not pause with the Reference Price determined by either BAM or the previous close. An average of 0.8 stocks per day would have paused with the Reference Price determined by either method. An average of 10.7 stocks per day pause using the current BAM Reference Price, but would not pause using the previous close Reference Price. Finally, an average of 1.3 stocks per day may pause using the previous close Reference Price but would not using the BAM Reference Price.

Participants believe that, for Nasdaq-listed securities, the 10.7 stocks per day in which the current Price Bands paused, but the previous close bands would not pause, could have been avoided if Price Bands based on the previous close were used in cases where there is no opening auction for a stock. This would represent an 83% reduction in the number of stocks pausing after opening on a quote.

(b) NYSE-Listed Securities

The methodology that NYSE used for its analyses tested the NBBO first and continued to use the BAM as the initial Reference Price if the width of the quote was less than or equal to one-half of the applicable Price Band width, but if outside of such parameters, the previous closing price was instead utilized (the "NYSE Methodology"). The differences in results between the methodology

applied by Nasdaq in subsection (a) above (*i.e.*, using the previous closing price only rather than checking the mid-quote first) and the NYSE Methodology were not substantial and are discussed further in subsection (d) below.

NYSE's analyses applied the NYSE Methodology to all LULD Price Bands until there was either a trade in the security or until a pause was signaled in actual trading. The analyses considered a new pause any time a security hit a simulated Limit State based on the revised bands under the NYSE Methodology. Note, however, that this tends to overestimate pauses because, according to Nasdaq's analysis, only approximately five of every eight securities that hit a Limit State would ultimately enter a pause.

NYSE Arca Results

Participants analyzed data from the first half of 2015, as well as for August 24, 2015, and found that the NYSE Methodology would have substantially reduced the number of pauses due to skewed quotes. NYSE defined a skewed quote as an opening quote for which the bid and offer were wide and for which an aggressive buyer or seller posted an order that resulted in a mid-point far from the security's market value. The NYSE simulation used the last sale on the Primary Listing Exchange whenever the Reference Price would have been based on such a skewed quote.

As shown in Table 11, below, during the first half of 2015, NYSE Arca had a daily average of 14 Tier 1 securities and 432 Tier 2 securities that opened on a quote. Of these, two Tier 1 and 119 Tier 2 securities typically used initial Reference Prices that were based on skewed quotes. However, most Tier 1 securities execute an opening auction, or have an initial quote that is tight enough to allow for the use of the mid-quote as a valid Reference Price. On average, each day, 0.1 Tier 1 and 10.9 Tier 2 securities were paused when their Reference Prices were based on skewed quotes (compared to 0.01 Tier 1 securities and 0.02 Tier 2 securities with good first Reference Prices that were paused during the same period). Application of the revised NYSE Methodology would have prevented all Tier 1 pauses and an average of 9.8 of 10.9 daily Tier 2 pauses (*i.e.*, a reduction of 90.5%).

Participants have determined that it is critical that revising the initial Reference Price methodology does not cause pauses that would not otherwise have occurred using the current methodology. The data shows that application of the NYSE Methodology would have resulted in no such pauses in Tier 1 securities and 0.07 such pauses in Tier 2 securities per day.

Participants also reviewed the simulation data (*see* Table 11) to determine if any securities that actually

experienced a pause using the current methodology would have experienced a pause earlier in the same trading day if the NYSE Methodology had been applied. Participants found that there

was an average of one such pause per day that would have occurred for Tier 2 securities and there were no such occurrences for Tier 1 securities. However, the Participants do not

consider this to be an issue, as these securities would have been subject to pauses already; the NYSE Methodology merely resulted in a pause occurring earlier in the trading session.

Table 11: NYSE Arca Open Reference Price Analysis

| | Securities Opening on a Quote | | Securities Using Last Sale (Skewed Reference) | | Securities With Halt Good Reference | | Securities With Halt Skewed | | Skewed Reference Halts Prevented | | Securities With Potential Halt and Skewed Reference Where Potential Halt Occurs Earlier | | Securities With Potential New Halt and Skewed Reference Price | |
|----------------------|-------------------------------|--------|---|--------|-------------------------------------|--------|-----------------------------|--------|----------------------------------|--------|---|--------|---|--------|
| | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 |
| H1 2015 | | | | | | | | | | | | | | |
| Average | 13.8 | 431.7 | 2.4 | 118.8 | 0.01 | 0.02 | 0.1 | 10.9 | 0.1 | 9.8 | 0.0 | 1.0 | 0.00 | 0.07 |
| Median | 14 | 437.5 | 2.0 | 118.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 9.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| Minimum | 6 | 285.0 | 0.0 | 88.0 | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maximum | 24 | 525.0 | 6.0 | 171.0 | 1.0 | 1.0 | 2.0 | 23.0 | 2.0 | 21.0 | 0.0 | 4.0 | 0.0 | 1.0 |
| Aug. 24, 2015 | 6.0 | 318.0 | 5.0 | 204.0 | 0.0 | 1.0 | 2.0 | 45.0 | 2.0 | 44.0 | 0.0 | 1.0 | 0.0 | 1.0 |

NYSE Results

Application of the NYSE Methodology during the first half of 2015 for NYSE-listed securities would

have prevented a total of 31 pauses, all in Tier 2 securities; on August 24, 2015, seven pauses would have been prevented (see Table 12). Participants estimate that a maximum of three

pauses would have been caused by the NYSE Methodology that would not have occurred using the current methodology, all in Tier 2 securities.

Table 12: NYSE Open Reference Price Analysis

| | Securities Opening on a Quote | | Securities Using Last Sale (Skewed Reference) | | Securities With Halt Good Reference | | Securities With Halt Skewed | | Skewed Reference Halts Prevented | | Securities With Potential Halt and Skewed Reference Where Potential Halt Occurs Earlier | | Securities With Potential New Halt and Skewed Reference Price | |
|----------------------|-------------------------------|--------|---|--------|-------------------------------------|--------|-----------------------------|--------|----------------------------------|--------|---|--------|---|--------|
| | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 |
| H1 2015 | | | | | | | | | | | | | | |
| Average | 1.4 | 474.8 | 0.5 | 48.1 | 0.00 | 0.02 | 0.0 | 0.3 | 0.00 | 0.25 | 0.00 | 0.02 | 0.00 | 0.02 |
| Median | 1 | 476.5 | 0.0 | 47.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Minimum | 0 | 346.0 | 0.0 | 31.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maximum | 5 | 560.0 | 2.0 | 81.0 | 0.0 | 1.0 | 0.0 | 3.0 | 0.0 | 3.0 | 0.0 | 1.0 | 0.0 | 1.0 |
| Aug. 24, 2015 | 0.0 | 240.0 | 0.0 | 54.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | 7.0 | 0.0 | 1.0 | 0.0 | 1.0 |

NYSE MKT Results

Application of the NYSE Methodology had no substantive impact on NYSE MKT-listed securities. For the

first half of 2015, two pauses would have been avoided, and there would have been no pauses caused by the NYSE Methodology that would

otherwise not have occurred using the current methodology. There would have been no impact on pauses on August 24, 2015 (Table 13).

Table 13: NYSE MKT Open Reference Price Analysis

| | Securities Opening on a Quote | | Securities Using Last Sale (Skewed Reference) | | Securities With Halt Good Reference | | Securities With Halt Skewed | | Securities With Skewed Reference Halts Prevented | | Securities With Potential Halt and Skewed Reference Where Potential Halt Occurs Earlier | | Securities With Potential New Halt and Skewed Reference Price | |
|----------------------|-------------------------------|--------|---|--------|-------------------------------------|--------|-----------------------------|--------|--|--------|---|--------|---|--------|
| | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 | Tier 1 | Tier 2 |
| H1 2015 | | | | | | | | | | | | | | |
| Average | 0.0 | 141.9 | 0.0 | 56.7 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.02 | 0.0 | 0.0 | 0.00 | 0.00 |
| Median | 0 | 144.5 | 0.0 | 55.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Minimum | 0 | 94.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maximum | 0 | 168.0 | 0.0 | 85.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aug. 24, 2015 | 0.0 | 93.0 | 0.0 | 37.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Table 14: NYSE and NYSE MKT September 2013 Analysis of Alternate Open Reference Price Methods

| ROLLED OUT NYSE + NYSE MKT | | | | | | NOT ROLLED OUT NYSE + NYSE MKT | | | | | |
|---------------------------------------|---------------------------|-------------------|----------------|--------------|----------|---------------------------------------|---------------------------|-------------------|----------------|--------------|----------|
| Possible Limit States or Halts Using* | | | | | | Possible Limit States or Halts Using* | | | | | |
| Date | Actual Halts Before Trade | Most Recent Trade | LULD Ref Price | Previous Day | | Date | Actual Halts Before Trade | Most Recent Trade | LULD Ref Price | Previous Day | |
| | | | | us Day | Openin | | | | | us Day | Openin |
| | | | | BAM | g BAM | | | | BAM | g BAM | |
| 8/5/2013 | 0 | 0 | 0 | 0 | 0 | 8/5/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/6/2013 | 0 | 0 | 0 | 0 | 0 | 8/6/2013 | 0 | 0 | 0 | 0 | 1 |
| 8/7/2013 | 0 | 0 | 0 | 0 | 0 | 8/7/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/8/2013 | 0 | 0 | 0 | 0 | 0 | 8/8/2013 | 0 | 0 | 0 | 0 | 1 |
| 8/9/2013 | 0 | 0 | 0 | 0 | 0 | 8/9/2013 | 0 | 0 | 0 | 0 | 1 |
| 8/12/2013 | 0 | 0 | 0 | 0 | 0 | 8/12/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/13/2013 | 0 | 0 | 0 | 0 | 0 | 8/13/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/14/2013 | 0 | 0 | 0 | 0 | 0 | 8/14/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/15/2013 | 0 | 0 | 0 | 0 | 0 | 8/15/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/16/2013 | 0 | 0 | 0 | 0 | 0 | 8/16/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/19/2013 | 0 | 0 | 0 | 0 | 0 | 8/19/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/20/2013 | 0 | 1 | 0 | 0 | 0 | 8/20/2013 | 0 | 0 | 0 | 0 | 1 |
| 8/21/2013 | 1 | 0 | 0 | 0 | 1 | 8/21/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/22/2013 | 0 | 0 | 0 | 0 | 0 | 8/22/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/23/2013 | 0 | 0 | 0 | 0 | 0 | 8/23/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/26/2013 | 1 | 0 | 0 | 0 | 0 | 8/26/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/27/2013 | 0 | 0 | 0 | 0 | 1 | 8/27/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/28/2013 | 0 | 0 | 0 | 0 | 0 | 8/28/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/29/2013 | 0 | 0 | 0 | 0 | 0 | 8/29/2013 | 0 | 0 | 0 | 0 | 1 |
| 8/30/2013 | 1 | 0 | 0 | 0 | 1 | 8/30/2013 | 0 | 0 | 0 | 0 | 0 |
| 9/3/2013 | 0 | 0 | 0 | 0 | 0 | 9/3/2013 | 0 | 0 | 0 | 0 | 0 |
| 9/4/2013 | 2 | 0 | 0 | 0 | 2 | 9/4/2013 | 0 | 0 | 0 | 0 | 0 |
| 9/5/2013 | 0 | 0 | 0 | 0 | 0 | 9/5/2013 | 0 | 0 | 0 | 0 | 0 |
| 9/6/2013 | 1 | 0 | 0 | 0 | 1 | 9/6/2013 | 0 | 0 | 0 | 0 | 0 |
| 9/9/2013 | 0 | 0 | 0 | 0 | 0 | 9/9/2013 | 0 | 0 | 0 | 0 | 0 |
| Total | 6 | 1 | 0 | 0 | 6 | Total | 0 | 0 | 0 | 0 | 5 |

(c) Participants' Conclusion on First Reference Price

The Participants find that the vast majority of Trading Pauses occur when the current Plan methodology results in inappropriate Reference Prices. This occurs most often in low volume securities when there is no opening cross on the Primary Listing Exchange

and the NBBO is wide or far from most recent last sale price of the security.²⁸

The Participants explored and back-tested multiple options for fixing the problem and recommend that the Plan be amended to change the first Reference Price when there is no

²⁸ When there is no opening trade and the Primary Listing Exchange does not have a previous closing price for a security (such as on its first day of trading or due to a technical problem), the Primary Listing Exchange BAM will be the Reference Price.

opening trade from the BAM to the Primary Listing Exchange previous closing price.

The Participants believe that the proposed amendments are consistent with Section 11A of the Exchange Act and Rule 608, of Regulation NMS thereunder,²⁹ which authorizes the Participants to act jointly in preparing,

²⁹ 17 CFR 242.608.

filing and implementing national market system plans.

(d) Alternative Approaches To Establishing the First Reference Price

The Commission staff requested that Participants consider alternative approaches to establishing the initial Reference Price when a security does not open on a trade. Under the current Plan, the Primary Listing Exchange determines the first Reference Price using BAM when no trade is executed in the opening auction, which the Participants believe results in unnecessary and avoidable trading pauses.

i. Utilize the mid-point of the prior day's last NBBO and the last LULD Reference Price:

In 2013 the Participants considered utilizing the mid-point of the prior day's

last NBBO and the prior day's last LULD Reference Price to determine the open reference price. The Participants found that, while these simulations also resulted in a reduction of pauses, such alternative methods were not as effective in reducing the number of pauses as using the most recent last sale eligible execution on the Primary Listing Exchange.

The results of those analyses are shown in Table 14, above, and Table 15, below. Results in Table 14 reflect those results for securities on NYSE and NYSE MKT that were subject to LULD at the time of the analyses. Results in Table 15 include those for the NYSE Arca-listed securities that were subject to LULD at the time of the analyses. These tables compare the number of securities subject to LULD that had been

paused before a trade had been executed with the estimated number of securities that would have been paused if the following methods had instead been implemented:

- Most recent prior day trade;
- Prior day's final LULD Reference Price;
- Final regular hours NBBO mid-point; and
- First NBBO mid-point.

The Participants also reviewed, for securities that were not yet subject to LULD at the time of the analyses, theoretical possible pauses using these same methods. The results showed that using the most recent prior day's last sale or the prior day's final LULD Reference Price resulted in far fewer pauses than the current methodology utilizing the BAM.

Table 15: NYSE Arca September 2013 Analysis of Alternate Open Reference Price Methods

| ROLLED OUT NYSE ARCA | | | | | | NOT ROLLED OUT NYSE ARCA | | | | | |
|---------------------------------------|--------------------|-------------------|--------------------|-----------|-------------|---------------------------------------|--------------------|-------------------|--------------------|-----------|-------------|
| Possible Limit States or Halts Using* | | | | | | Possible Limit States or Halts Using* | | | | | |
| Date | Actual | Previous | | Previous | | Date | Actual | Previous | | Previous | |
| | Halts Before Trade | Most Recent Trade | Day LULD Ref Price | Day BAM | Opening BAM | | Halts Before Trade | Most Recent Trade | Day LULD Ref Price | Day BAM | Opening BAM |
| 8/5/2013 | 0 | 0 | 0 | 0 | 0 | 8/5/2013 | 0 | 1 | 0 | 1 | 44 |
| 8/6/2013 | 0 | 0 | 0 | 0 | 0 | 8/6/2013 | 0 | 0 | 0 | 1 | 39 |
| 8/7/2013 | 1 | 0 | 0 | 0 | 0 | 8/7/2013 | 0 | 0 | 0 | 2 | 40 |
| 8/8/2013 | 0 | 0 | 0 | 0 | 0 | 8/8/2013 | 0 | 0 | 0 | 0 | 41 |
| 8/9/2013 | 0 | 0 | 0 | 0 | 0 | 8/9/2013 | 0 | 0 | 0 | 1 | 39 |
| 8/12/2013 | 2 | 0 | 0 | 1 | 5 | 8/12/2013 | 0 | 1 | 0 | 1 | 32 |
| 8/13/2013 | 0 | 0 | 0 | 0 | 3 | 8/13/2013 | 0 | 0 | 0 | 0 | 35 |
| 8/14/2013 | 5 | 0 | 0 | 1 | 6 | 8/14/2013 | 0 | 0 | 0 | 1 | 44 |
| 8/15/2013 | 1 | 0 | 0 | 0 | 3 | 8/15/2013 | 0 | 2 | 0 | 2 | 32 |
| 8/16/2013 | 3 | 0 | 0 | 0 | 4 | 8/16/2013 | 0 | 2 | 0 | 2 | 50 |
| 8/19/2013 | 47 | 2 | 0 | 4 | 49 | 8/19/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/20/2013 | 11 | 2 | 2 | 5 | 17 | 8/20/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/21/2013 | 4 | 3 | 0 | 0 | 9 | 8/21/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/22/2013 | 10 | 0 | 0 | 1 | 15 | 8/22/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/23/2013 | 5 | 2 | 0 | 3 | 9 | 8/23/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/26/2013 | 7 | 1 | 1 | 1 | 12 | 8/26/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/27/2013 | 10 | 2 | 1 | 3 | 18 | 8/27/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/28/2013 | 0 | 1 | 0 | 2 | 11 | 8/28/2013 | 0 | 0 | 0 | 0 | 0 |
| 8/29/2013 | 1 | 0 | 0 | 0 | 1 | 8/29/2013 | 0 | 3 | 0 | 1 | 9 |
| 8/30/2013 | 0 | 0 | 0 | 0 | 0 | 8/30/2013 | 0 | 1 | 0 | 2 | 14 |
| 9/3/2013 | 2 | 0 | 0 | 0 | 2 | 9/3/2013 | 0 | 0 | 0 | 0 | 12 |
| 9/4/2013 | 1 | 0 | 0 | 0 | 1 | 9/4/2013 | 0 | 0 | 0 | 0 | 10 |
| 9/5/2013 | 0 | 0 | 0 | 0 | 0 | 9/5/2013 | 0 | 1 | 0 | 1 | 5 |
| 9/6/2013 | 1 | 0 | 0 | 0 | 2 | 9/6/2013 | 0 | 0 | 0 | 0 | 10 |
| 9/9/2013 | 1 | 0 | 0 | 0 | 0 | 9/9/2013 | 0 | 0 | 0 | 0 | 14 |
| Total | 112 | 13 | 4 | 21 | 167 | Total | 0 | 11 | 0 | 15 | 470 |

ii. Delay the Establishing of the Open Reference Price

The Participants also considered a delay in establishing the open Reference

Price until 9:32 a.m., but noted that such a delay would result in a period during which there was no LULD protection after the Primary Listing

Exchange had already opened the security (Table 16).

Table 16: NYSE Arca Spread Change From Open to 9:32AM, October 2013

| | Open | 9:32 | Change |
|-------------------|--------|-------|--------|
| Average | 9.32% | 3.11% | 66.67% |
| Median | 1.88% | 0.74% | 60.82% |
| 92nd %tile | 34.09% | 5.84% | 82.88% |

Also, to review the feasibility of using such a delay, an analysis of spread changes in NYSE Arca ETPs between 9:30 a.m. and 9:32 a.m. was conducted for October 2013. This analysis used the percentage of NYSE Arca securities in the first half of 2015 that would have employed the most recent last sale eligible execution as the initial Reference Price, which was 7.94%,³⁰ to establish the appropriate threshold to use in determining which spreads should be included in the analysis. The analysis applied 7.94% to the percentile rank of spreads at the open and at 9:32 a.m. (*i.e.*, $100\% - 7.94\% = 92.06$ percentile). As shown in Table 16 above, securities in this percentile typically had a spread greater than 34% at the open, and the spread still remained relatively wide, at 5.84%, at 9:32 a.m. The risk posed by leaving securities without LULD protection for two minutes in addition to the risk that the mid-quotes may still be skewed two minutes after opening led to the Participants' determination that delaying until 9:32 a.m. to determine the open Reference Price was not a viable alternative.

iii. Pause Trading Until the NBBO Meets Some Standard of Quality

Another alternative suggestion would be pausing trading on stocks until the NBBO meets some standard of quality.

The Participants find that it is unnecessarily disruptive to put stocks into a Trading Pause when there is little trading interest. In fact, the purpose of the recommended change in the initial Reference Price calculation methodology is to reduce unnecessary Trading Pauses. Instead, it should be recognized that when the NBBO in a stock is wider than the LULD bands, the stock is in a temporary form of Trading Pause because trades cannot occur at bids and offers outside the LULD bands (a trade may occur if non-displayed orders meet at prices within the Price Bands). Trading may resume smoothly when limit orders return within the

³⁰ There was an average of 118.8 securities per day that would have used last sale as the open reference price as represented in Table 16 above. The average daily count of NYSE Arca-listed securities in the first half of 2015 was 1,493.

Price Bands. Market participants also may move their orders to the Limit State and force an auction if they believe the appropriate price is not within the Price Bands.

iv. Test the Opening NBBO

Another alternative suggestion is to test the NBBO and continue to use the BAM as the first reference price if the width of the quote is less than or equal to one-half of the applicable Price Band width, but if outside of such parameters, the previous closing price would be utilized. NYSE found that including this mid-quote check would have prevented, in the first half of 2015, an additional 54 pauses in NYSE Arca Tier 2 securities, three pauses in NYSE Arca Tier 1 securities, two pauses in NYSE Tier 1 securities and seven pauses in NYSE-listed Tier 2 securities (NYSE MKT and BATS results were not tested without the mid-quote check). However, a substantial number of such pauses were in a limited number of securities, most of which rarely traded.

Therefore, the Participants believe that at this time the added complexity and potential for continuing to have inappropriate Reference Prices from such an approach would outweigh any incremental benefits. First, the complexity added by undertaking the test in every security that does not have a trade may further delay establishing the LULD Price Bands and adds a point of failure to the Price Band calculation. Second, in some cases the NBBO is narrow, but at prices far from the security's fundamental value. Third, there is no research available to justify any particular standard of how narrow the NBBO should be before it is acceptable. Finally, Nasdaq back-testing demonstrates that, at most, one Nasdaq-listed security will pause each day because of switching from the BAM to the previous closing price, but that is not a pause that should not have happened. The fact that the price has moved away from the previous close is an indication of news.

v. Alternatives External to the LULD Plan

The Participants considered an alternative external to the LULD Plan to

mitigate wide or skewed opening quotes resulting in an inaccurate midpoint—*i.e.*, the imposition of enhanced or tighter market maker quoting obligations. Current market maker obligations generally require market makers to quote a designated percentage away from the NBBO or the last reported sale, but are not applicable until the stock has opened for trading. Thus, simply narrowing quoting obligations would be insufficient where there are no price references off which to measure, and would require a new structure to be effective prior to or upon the opening.

Noting that the purpose of the pilot period and study is to correct unintended consequences of the Plan design, the Participants believe it is not necessary to create new regulatory obligations and attendant surveillances, enforcement and penalties in order to fix a design flaw created by the Participants when the recommended system changes can fix the mid-point issue in a more targeted manner.

Other broader external solutions designed to mitigate fragmentation around the opening are beyond the scope of this study and the Participants.

(4) Discussion of Additional Potential Measures To Increase Liquidity and Promote Market Stability

Trading venues undertake a range of activities to encourage deep liquidity and stable markets. In addition to the Plan, exchanges and non-exchange trading venues compete with innovative information products, order types, and pricing to attract and promote market making. The Participants also have rules that set standards and requirements for market maker quoting, market-wide circuit breakers, clearly erroneous trades and aberrant trades.

All of these rules are interrelated, and any changes to the Plan may also affect the impact of other rules on the market. This section discusses alternatives Participants considered to promote liquidity provision and rule changes, in addition to the Plan, that the Participants believe could promote market stability.

(a) Market Maker Quoting Standards

Notwithstanding current SRO requirements for market makers, liquidity demand sometimes overwhelms supply and prices can move without a fundamental change in the value of the asset. The Participants considered alternative ways to enhance liquidity or limit such temporary price dislocations.

Specifically, Participants considered suggestions that market maker incentives and obligations could be enhanced to encourage or require greater liquidity provision near the price of the asset. Such additional depth could be expected to absorb liquidity-taking orders that would otherwise push the price away from its fundamental value. Several exchanges have implemented innovative ways for issuers to compensate market makers for enhanced market making in certain securities. Participants believe that the SEC should encourage such innovation. Participants find that efforts to increase market maker obligations without compensation are untenable in the current fragmented market structure because market makers can avoid exchange-level quoting obligations by moving market making activities to a non-exchange venue that does not share the requirements. Participants find that future market structure considerations should be given to the benefits of reducing fragmentation in certain situations, particularly in trading of illiquid stocks.

Furthermore, current market maker obligations generally require market makers to quote a designated percentage away from the NBBO or the last reported sale, but are not applicable until the stock has opened for trading. Thus, simply narrowing quoting obligations would be insufficient where there are no price references off of which to measure, and would require a new structure to be effective prior to or upon the opening.

Several industry members have also recommended that to help increase the likelihood of a successful auction, and to improve price discovery, consideration should be given to routing of all orders to the Primary Listing Exchange during a halt. Auctions provide an opportunity to aggregate liquidity, and routing to the primary exchange could reduce fragmentation and may preclude a run-off of standing orders that could have been more efficiently handled by the Primary Listing Exchange's reopening auction.

(b) Market Orders and Stop Market Orders

To limit the risk that retail investors receive executions at prices substantially different than those they expected to receive, particularly during periods of high volatility, the Participants believe consideration should be given to eliminating stop loss market orders. In addition, Participants recommend that market participants be provided the opportunity to consider and comment on proposals to limit or eliminate the use of market orders.

(c) Additional Alternatives

Additional items that warrant further consideration in this context include possibly requiring the routing of all orders to the Primary Listing Exchange during the reopening auction process. Market participants and regulators may also consider providing ETP issuers the option of waiting until 9:45 a.m. to open their securities on volatile days. This may require a specific industry rule with respect to the definition of "volatile." Finally, consideration should be given to incorporating indicative valuations into the set of criteria used to invoke auction reopenings.

B. Governing or Constituent Documents

The governing documents of the Processor, as defined in Section I(P) of the Plan, will not be affected by the Plan, but once the Plan is implemented, the Processor's obligations will change, as set forth in detail in the Plan.

C. Implementation of Plan

The initial date of the Plan operations was April 8, 2013.

D. Development and Implementation Phases

The Plan was initially implemented as a one-year pilot program in two Phases, consistent with Section VIII of the Plan: Phase I of Plan implementation began on April 8, 2013 and was completed on May 3, 2013. Implementation of Phase II of the Plan began on August 5, 2013 and was completed on February 24, 2014. Pursuant to the Ninth Amendment, the Participants extended the Pilot until April 22, 2016.³¹ Pursuant to the instant proposal, the Plan would be extended until April 21, 2017 with the proposed modifications described herein. The amendments would be implemented three months after SEC approval of Amendment No. 10.

³¹ See *supra* note 1.

E. Analysis of Impact on Competition

The proposed amendment to the Plan does not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Exchange Act. 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 the Plan

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

G. Approval of Amendment of the Plan

Each of the Plan's Participants has executed a written amended Plan.

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.

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

Not applicable.

J. Method and Frequency of Processor Evaluation

Not applicable.

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.

On February 17, 2016, the Operating Committee, duly constituted and chaired by Mr. Paul Roland, Nasdaq, met and voted unanimously to amend the Plan as set forth herein in accordance with Section III(C) of the Plan. The Plan Advisory Committee was notified in connection with the Tenth Amendment and was in favor.

III. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed Tenth Amendment is consistent with the Act.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission’s Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an email to 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 Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the Plan that are filed with the Commission, and all written communications relating to the Plan 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 Web site 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 Participants’ principal offices. All comments received will be posted without change; the Commission does not edit personal identifying information from 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 March 21, 2016.

By the Commission.
Robert W. Errett,
Deputy Secretary.

Appendix 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[, or,] [i]f 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 [midpoint of those quotations].

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

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

(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) BATS Exchange, Inc., 8050 Marshall Drive, Lenexa, Kansas 66214
- (2) BATS Y-Exchange, Inc., 8050 Marshall Drive, Lenexa, Kansas 66214
- (3) Chicago Stock Exchange, Inc., 440 South LaSalle Street, Chicago, Illinois 60605
- (4) EDGA Exchange, Inc., 8050 Marshall Drive, Lenexa, Kansas 66214
- (5) EDGX Exchange, Inc., 8050 Marshall Drive, Lenexa, Kansas 66214
- (6) Financial Industry Regulatory Authority, Inc., 1735 K Street, NW, Washington, DC 20006
- (7) NASDAQ OMX BX, Inc., One Liberty Plaza, New York, New York 10006
- (8) NASDAQ OMX PHLX LLC, 1900 Market Street, Philadelphia, Pennsylvania 19103
- (9) The Nasdaq Stock Market LLC, 1 Liberty Plaza, 165 Broadway, New York, NY 10006
- (10) National Stock Exchange, Inc., 101 Hudson, Suite 1200, Jersey City, NJ 07302
- (11) New York Stock Exchange LLC, 11 Wall Street, New York, New York 10005
- (12) NYSE MKT LLC, 11 Wall Street, New York, New York 10005
- (13) NYSE Arca, 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 9:30 a.m. and 9:45 a.m. ET, and 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. If a Reopening Price does not occur within ten minutes after the beginning of a Trading Pause, the Price Band, for the first 30 seconds following the reopening after that Trading Pause, shall be calculated by applying triple the Percentage Parameters set forth in Appendix A.

(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, the next Reference Price shall be the Reopening Price on the Primary Listing Exchange if such Reopening Price occurs within ten minutes after the beginning of the Trading Pause, 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 Reopening Price does not occur within ten minutes after the beginning of the Trading Pause, the first Reference Price following the Trading Pause shall be equal to the last effective Reference Price before the Trading Pause. Subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

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

VI. Limit Up-Limit Down Requirements

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

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

(2) When a National Best Bid is below the Lower Price Band or a National Best Offer is above the Upper Price Band for an NMS Stock, the Processor shall disseminate such National Best Bid or National Best Offer with an appropriate flag identifying it as non-executable. When a National Best Offer is equal to the Lower Price Band or a National

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

(3) All trading centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent the display of offers below the Lower Price Band and bids above the Upper Price Band for an NMS Stock. The Processor shall disseminate an offer below the Lower Price Band or bid above the Upper Price Band that may be submitted despite such reasonable policies and procedures, but with an appropriate flag identifying it as non-executable; provided, however, that any such bid or offer shall not be included in National Best Bid or National Best Offer calculations.

(B) Entering and Exiting a Limit State

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

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

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

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

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

VII. Trading Pauses

(A) Declaration of Trading Pauses

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

(2) The Primary Listing Exchange may also declare a Trading Pause for an NMS Stock when an NMS Stock is in a Straddle State, which is when National Best Bid (Offer) is

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

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

(B) Reopening of Trading During Regular Trading Hours

(1) Five minutes after declaring a Trading Pause for an NMS Stock, and if the Primary Listing Exchange has not declared a Regulatory Halt, the Primary Listing Exchange shall attempt to reopen trading using its established reopening procedures. The 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 for any reason other than a significant order imbalance and if it has not declared a Regulatory Halt. The Processor shall disseminate this information to the public, and all trading centers may begin trading the NMS Stock at this time.

(3) If the Primary Listing Exchange does not report a Reopening Price within ten minutes after the declaration of a Trading Pause in an NMS Stock, and has not declared a Regulatory Halt, all trading centers may begin trading the NMS Stock.

(4) When trading begins after a Trading Pause, the Processor shall update the Price Bands as set forth in Section V(C)(1) of the Plan.

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

(1) If a Trading Pause for an NMS Stock is declared in 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.

(A) Phase I

(1) On the initial date of Plan operations, Phase I of Plan implementation shall begin in select symbols from the Tier 1 NMS Stocks identified in Appendix A of the Plan.

(2) Three months after the initial date of Plan operations, or such earlier date as may

be announced by the Processor with at least 30 days notice, the Plan shall fully apply to all Tier 1 NMS Stocks identified in Appendix A of the Plan.

(3) During Phase I, the first Price Bands for a trading day shall be calculated and disseminated 15 minutes after the start of Regular Trading Hours as specified in Section (V)(A) of the Plan. No Price Bands shall be calculated and disseminated and therefore trading shall not enter a Limit State less than 30 minutes before the end of Regular Trading Hours.

(B) Phase II—Full Implementation

Phase II.A.: Eight months after the initial date of Plan operations, or such earlier date as may be announced by the Processor with at least 30 days notice, the Plan shall fully apply (i) to all NMS Stocks; and (ii) beginning at 9:30 a.m. ET, and ending at 3:45 p.m. ET each trading day, or earlier in the case of an early scheduled close.

Phase II.B.: By February 24, 2014, or such earlier date as may be announced by the Processor with at least 30 days notice, the Plan shall fully apply (i) to all NMS Stocks; and (ii) beginning at 9:30 a.m. ET, and ending at 4:00 p.m. ET each trading day, or earlier in the case of an early scheduled close.

(C) Pilot

The Plan shall be implemented on a pilot basis set to end on April 21[2], 2017[6].

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 [31st] 18th day of [July] February 2016[5] by each of the parties hereto.

BATS EXCHANGE, INC.

BY: _____

CHICAGO STOCK EXCHANGE, INC.

BY: _____

EDGX EXCHANGE, INC.

BY: _____

NASDAQ OMX BX, INC.

BY: _____

THE NASDAQ STOCK MARKET LLC

BY: _____

NEW YORK STOCK EXCHANGE LLC

BY: _____

NYSE ARCA, INC.

BY: _____

BATS Y-EXCHANGE, INC.

BY: _____

EDGA EXCHANGE, INC.

BY: _____

FINANCIAL INDUSTRY REGULATORY AUTHORITY, INC.

BY: _____

NASDAQ OMX PHLX LLC

BY: _____

NATIONAL STOCK EXCHANGE, INC.

BY: _____

NYSE MKT LLC

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, the Russell 1000 Index, and the exchange-traded products ("ETP") [listed on] *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 Web sites.

(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 4, 2016)

| Ticker | ETP name | Exchange |
|--------|--|-----------|
| AAXJ | iShares MSCI All Country Asia ex Japan ETF | NASDAQ |
| ACWI | iShares MSCI ACWI ETF | NASDAQ |
| ACWV | iShares MSCI All Country World Minimum Volatility ETF | NYSE Arca |
| ACWX | iShares MSCI ACWI ex US ETF | NASDAQ |
| AGG | iShares Core U.S. Aggregate Bond ETF | NYSE Arca |
| AGZ | iShares Agency Bond ETF | NYSE Arca |
| AMJ | JPMorgan Alerian MLP Index ETN | NYSE Arca |
| AML | Alerian MLP ETF | NYSE Arca |
| AMU | ETRACS Alerian MLP Index ETN | NYSE Arca |
| AOA | iShares Core Aggressive Allocation ETF | NYSE Arca |
| AOK | iShares Core Conservative Allocation ETF | NYSE Arca |
| AOM | iShares Core Moderate Allocation ETF | NYSE Arca |
| AOR | iShares Core Growth Allocation ETF | NYSE Arca |
| ASHR | Deutsche X-trackers Harvest CSI 300 China A-Shares ETF | NYSE Arca |
| ASHS | Deutsche X-trackers Harvest CSI 500 China A-Shares ETF | NYSE Arca |
| ATMP | Barclays ETN+ Select MLP ETNs | NYSE Arca |
| BAB | PowerShares Build America Bond Portfolio | NYSE Arca |
| BBH | Market Vectors Biotech ETF | NYSE Arca |
| BIL | SPDR Barclays 1–3 Month T-Bill | NYSE Arca |
| BIV | Vanguard Intermediate-Term Bond ETF | NYSE Arca |
| BKLN | PowerShares Senior Loan Portfolio | NYSE Arca |
| BLV | Vanguard Long-Term Bond ETF | NYSE Arca |
| BND | Vanguard Total Bond Market ETF | NYSE Arca |
| BNDX | SPDR Barclays Aggregate Bond ETF | NYSE Arca |
| BOND | Vanguard Total International Bond ETF | NASDAQ |
| BSCG | PIMCO Total Return Active Exchange-Traded Fund | NYSE Arca |
| BSCJ | Guggenheim BulletShares 2016 Corporate Bond ETF | NYSE Arca |
| BSCG | Guggenheim BulletShares 2017 Corporate Bond ETF | NYSE Arca |
| BSCI | Guggenheim BulletShares 2018 Corporate Bond ETF | NYSE Arca |
| BSCJ | Guggenheim BulletShares 2019 Corporate Bond ETF | NYSE Arca |
| BSCK | Guggenheim BulletShares 2020 Corporate Bond ETF | NYSE Arca |
| BSJF | Guggenheim BulletShares 2015 High Yield Corporate Bond ETF | NYSE Arca |
| BSJG | Guggenheim BulletShares 2016 High Yield Corporate Bond ETF | NYSE Arca |
| BSJH | Guggenheim BulletShares 2017 High Yield Corporate Bond ETF | NYSE Arca |
| BSJI | Guggenheim BulletShares 2018 High Yield Corporate Bond ETF | NYSE Arca |
| BSJJ | Guggenheim BulletShares 2019 High Yield Corporate Bond ETF | NYSE Arca |
| BSV | Vanguard Short-Term Bond ETF | NYSE Arca |
| BTAL | QuantShares US Market Neutral Anti-Beta Fund | NYSE Arca |
| BWX | SPDR Barclays International Treasury Bond ETF | NYSE Arca |
| CHAD | Direxion Daily CSI 300 China A Share Bear 1x Shares | NYSE Arca |
| CIU | iShares Intermediate Credit Bond ETF | NYSE Arca |
| CLY | iShares 10+ Year Credit Bond ETF | NYSE Arca |
| CMBS | iShares CMBS ETF | NYSE Arca |
| CMF | iShares California AMT-Free Muni Bond ETF | NYSE Arca |
| CNXT | Market Vectors China AMC SME-ChiNext ETF | NYSE Arca |
| CORP | PIMCO Investment Grade Corporate Bond Index Exchange-Traded Fund | NYSE Arca |
| CRED | iShares Core US Credit Bond ETF | NYSE Arca |
| CSD | Guggenheim Spin-Off ETF | NYSE Arca |
| CSJ | iShares 1–3 Year Credit Bond ETF | NYSE Arca |
| CSM | ProShares Large Cap Core Plus | BATS |
| CVY | Guggenheim Multi-Asset Income ETF | NYSE Arca |
| CWB | SPDR Barclays Convertible Securities ETF | NYSE Arca |
| CWI | SPDR MSCI ACWI ex-US ETF | NYSE Arca |
| DBA | PowerShares DB Agriculture Fund | NYSE Arca |
| DBC | PowerShares DB Commodity Index Tracking Fund | NYSE Arca |
| DBEF | Deutsche X-trackers MSCI EAFE Hedged Equity ETF | NYSE Arca |
| DBEM | Deutsche X-trackers MSCI Emerging Markets Hedged Equity ETF | NYSE Arca |
| DBEU | Deutsche X-trackers MSCI Europe Hedged Equity ETF | NYSE Arca |
| DBGH | Deutsche X-trackers MSCI Germany Hedged Equity ETF | NYSE Arca |
| DBJP | Deutsche X-trackers MSCI Japan Hedged Equity ETF | NYSE Arca |
| DBKO | Deutsche X-trackers MSCI South Korea Hedged Equity ETF | NYSE Arca |
| DBO | PowerShares DB Oil Fund | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|---|-----------|
| DEM | WisdomTree Emerging Markets High Dividend Fund | NYSE Arca |
| DES | WisdomTree SmallCap Dividend Fund | NYSE Arca |
| DFE | WisdomTree Europe SmallCap Dividend Fund | NYSE Arca |
| DFJ | WisdomTree Japan SmallCap Dividend Fund | NYSE Arca |
| DGRO | iShares Core Dividend Growth ETF | NYSE Arca |
| DGRW | WisdomTree U.S. Quality Dividend Growth Fund | NASDAQ |
| DGS | WisdomTree Emerging Markets SmallCap Dividend Fund | NYSE Arca |
| DHS | WisdomTree High Dividend Fund | NYSE Arca |
| DIA | SPDR Dow Jones Industrial Average ETF Trust | NYSE Arca |
| DJP | iPath Bloomberg Commodity Index Total Return ETN | NYSE Arca |
| DLN | WisdomTree LargeCap Dividend Fund | NYSE Arca |
| DLS | WisdomTree International SmallCap Dividend Fund | NYSE Arca |
| DOG | ProShares Short Dow30 | NYSE Arca |
| DOL | WisdomTree International LargeCap Dividend Fund | NYSE Arca |
| DON | WisdomTree MidCap Dividend Fund | NYSE Arca |
| DSI | iShares MSCI KLD 400 Social ETF | NYSE Arca |
| DTD | WisdomTree Total Dividend Fund | NYSE Arca |
| DTN | WisdomTree Dividend Ex-Financials Fund | NYSE Arca |
| DVY | iShares Select Dividend ETF | NYSE Arca |
| DWAS | PowerShares DWA SmallCap Momentum Portfolio | NYSE Arca |
| DWM | WisdomTree International Equity Fund | NYSE Arca |
| DWTR | PowerShares DWA Tactical Sector Rotation Portfolio | NASDAQ |
| DWX | SPDR S&P International Dividend ETF | NYSE Arca |
| DXGE | WisdomTree Germany Hedged Equity Fund | NASDAQ |
| DXJ | WisdomTree Japan Hedged Equity Fund | NYSE Arca |
| DXJS | WisdomTree Japan Hedged SmallCap Equity Fund | NASDAQ |
| ECH | iShares MSCI Chile Capped ETF | NYSE Arca |
| ECON | EGShares Emerging Markets Consumer ETF | NYSE Arca |
| EDIV | SPDR S&P Emerging Markets Dividend ETF | NYSE Arca |
| EDV | Vanguard Extended Duration Treasury ETF | NYSE Arca |
| EELV | PowerShares S&P Emerging Markets Low Volatility Portfolio | NYSE Arca |
| EEM | iShares MSCI Emerging Markets ETF | NYSE Arca |
| EEMA | iShares MSCI Emerging Markets Asia ETF | NASDAQ |
| EEMS | iShares MSCI Emerging Markets Small-Cap ETF | NYSE Arca |
| EEMV | iShares MSCI Emerging Markets Minimum Volatility ETF/Dup | NYSE Arca |
| EFA | iShares MSCI EAFE ETF | NYSE Arca |
| EFAV | iShares MSCI EAFE Minimum Volatility ETF | NYSE Arca |
| EFG | iShares MSCI EAFE Growth ETF | NYSE Arca |
| EFV | iShares MSCI EAFE Value ETF | NYSE Arca |
| EFZ | ProShares Short MSCI EAFE | NYSE Arca |
| EIDO | iShares MSCI Indonesia ETF | NYSE Arca |
| EIRL | iShares MSCI Ireland Capped ETF | NYSE Arca |
| EIS | iShares MSCI Israel Capped ETF | NYSE Arca |
| ELD | WisdomTree Emerging Markets Local Debt Fund | NYSE Arca |
| EMB | iShares JP Morgan USD Emerging Markets Bond ETF | NYSE Arca |
| EMHY | iShares Emerging Markets High Yield Bond ETF | BATS |
| EMLC | Market Vectors J.P. Morgan EM Local Currency Bond ETF | NYSE Arca |
| EMLP | First Trust North American Energy Infrastructure Fund | NYSE Arca |
| EPHE | iShares MSCI Philippines ETF | NYSE Arca |
| EPI | WisdomTree India Earnings Fund | NYSE Arca |
| EPOL | iShares MSCI Poland Capped ETF | NYSE Arca |
| EPP | iShares MSCI Pacific ex Japan ETF | NYSE Arca |
| EPU | iShares MSCI All Peru Capped ETF | NYSE Arca |
| ERUS | iShares MSCI Russia Capped ETF | NYSE Arca |
| EUFN | iShares MSCI Europe Financials ETF | NASDAQ |
| EUM | ProShares Short MSCI Emerging Markets | NYSE Arca |
| EUSC | WisdomTree Europe Hedged SmallCap Equity Fund | NYSE Arca |
| EWA | iShares MSCI Australia ETF | NYSE Arca |
| EWC | iShares MSCI Canada ETF | NYSE Arca |
| EWD | iShares MSCI Sweden ETF | NYSE Arca |
| EWG | iShares MSCI Germany ETF | NYSE Arca |
| EWH | iShares MSCI Hong Kong ETF | NYSE Arca |
| EWI | iShares MSCI Italy Capped ETF | NYSE Arca |
| EWJ | iShares MSCI Japan ETF | NYSE Arca |
| EWK | iShares MSCI Belgium Capped ETF | NYSE Arca |
| EWL | iShares MSCI Switzerland Capped ETF | NYSE Arca |
| EWM | iShares MSCI Malaysia ETF | NYSE Arca |
| EWN | iShares MSCI Netherlands ETF | NYSE Arca |
| EWP | iShares MSCI Spain Capped ETF | NYSE Arca |
| EWQ | iShares MSCI France ETF | NYSE Arca |
| EWS | iShares MSCI Singapore ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|---|-----------|
| EWT | iShares MSCI Taiwan ETF | NYSE Arca |
| EWU | iShares MSCI United Kingdom ETF | NYSE Arca |
| EWV | iShares MSCI Mexico Capped ETF | NYSE Arca |
| EWX | SPDR S&P Emerging Markets SmallCap ETF | NYSE Arca |
| EWY | iShares MSCI South Korea Capped ETF | NYSE Arca |
| EWZ | iShares MSCI Brazil Capped ETF | NYSE Arca |
| EZA | iShares MSCI South Africa ETF | NYSE Arca |
| EZM | WisdomTree MidCap Earnings Fund | NYSE Arca |
| EZU | iShares MSCI Eurozone ETF | NYSE Arca |
| FBT | First Trust NYSE Arca Biotechnology Index Fund | NYSE Arca |
| FCG | First Trust ISE-Revere Natural Gas Index Fund | NYSE Arca |
| FDIS | Fidelity MSCI Consumer Discretionary Index ETF | NYSE Arca |
| FDL | First Trust Morningstar Dividend Leaders Index | NYSE Arca |
| FDN | First Trust Dow Jones Internet Index Fund | NYSE Arca |
| FEM | First Trust Emerging Markets AlphaDEX Fund | NASDAQ |
| FENY | Fidelity MSCI Energy Index ETF | NYSE Arca |
| FEP | First Trust Europe AlphaDEX Fund | NASDAQ |
| FEX | First Trust Large Cap Core AlphaDEX Fund | NYSE Arca |
| FEZ | SPDR EURO STOXX 50 ETF | NYSE Arca |
| FGD | First Trust DJ Global Select Dividend Index Fund | NYSE Arca |
| FHLC | Fidelity MSCI Health Care Index ETF | NYSE Arca |
| FIDU | Fidelity MSCI Industrials Index ETF | NYSE Arca |
| FJP | First Trust Japan AlphaDEX Fund | NASDAQ |
| FKU | First Trust United Kingdom AlphaDEX Fund | NASDAQ |
| FLOT | iShares Floating Rate Bond ETF | NYSE Arca |
| FLTB | Fidelity Ltd Term Bond ETF | NYSE Arca |
| FM | iShares MSCI Frontier 100 ETF JDR | NYSE Arca |
| FMAT | Fidelity MSCI Materials Index ETF | NYSE Arca |
| FNCL | Fidelity MSCI Financials Index ETF | NYSE Arca |
| FNDA | Schwab Fundamental U.S. Small Company Index | NYSE Arca |
| FNDC | Schwab Fundamental International Small Cap Company Index | NYSE Arca |
| FNDE | Schwab Fundamental Emerging Markets Large Company Index ETF | NYSE Arca |
| FNDF | Schwab Fundamental International Large Company Index | NYSE Arca |
| FNDX | Schwab Fundamental U.S. Large Company Index | NYSE Arca |
| FNX | First Trust Mid Cap Core AlphaDEX Fund | NYSE Arca |
| FPE | First Trust Preferred Securities and Income ETF | NYSE Arca |
| FPX | First Trust US IPO Index Fund | NYSE Arca |
| FSTA | Fidelity MSCI Consumer Staples Index ETF | NYSE Arca |
| FTA | First Trust Large Cap Value AlphaDEX Fund | NYSE Arca |
| FTC | First Trust Large Cap Growth AlphaDEX Fund | NYSE Arca |
| FTEC | Fidelity MSCI Information Technology Index ETF | NYSE Arca |
| FTGC | First Trust Global Tactical Commodity Strategy Fund | NASDAQ |
| FTSL | First Trust Senior Loan ETF | NASDAQ |
| FTSM | First Trust Enhanced Short Maturity ETF | NASDAQ |
| FUTY | Fidelity MSCI Utilities Index ETF | NYSE Arca |
| FV | First Trust Dorsey Wright Focus 5 ETF | NASDAQ |
| FVD | First Trust Value Line Dividend Index Fund | NYSE Arca |
| FXA | CurrencyShares Australian Dollar Trust | NYSE Arca |
| FXB | CurrencyShares British Pound Sterling Trust | NYSE Arca |
| FXC | CurrencyShares Canadian Dollar Trust | NYSE Arca |
| FXD | First Trust Consumer Discretionary AlphaDEX Fund | NYSE Arca |
| FXE | CurrencyShares Euro Trust | NYSE Arca |
| FXG | First Trust Consumer Staples AlphaDEX Fund | NYSE Arca |
| FXH | First Trust Health Care AlphaDEX Fund | NYSE Arca |
| FXI | iShares China Large-Cap ETF | NYSE Arca |
| FXL | First Trust Technology AlphaDEX Fund | NYSE Arca |
| FXN | First Trust Energy AlphaDEX Fund | NYSE Arca |
| FXO | First Trust Financial AlphaDEX Fund | NYSE Arca |
| FXR | First Trust Industrials/Producer Durables AlphaDEX Fund | NYSE Arca |
| FXU | First Trust Utilities AlphaDEX Fund | NYSE Arca |
| FXY | CurrencyShares Japanese Yen Trust | NYSE Arca |
| FXZ | First Trust Materials AlphaDEX Fund | NYSE Arca |
| FYX | First Trust Small Cap Core AlphaDEX Fund | NYSE Arca |
| GBF | iShares Government/Credit Bond ETF | NYSE Arca |
| GDX | Market Vectors Gold Miners ETF | NYSE Arca |
| GDXJ | Market Vectors Junior Gold Miners ETF | NYSE Arca |
| GEM | Goldman Sachs ActiveBeta Emerging Markets Equity ETF | NYSE Arca |
| GLD | SPDR Gold Shares | NYSE Arca |
| GMF | SPDR S&P Emerging Asia Pacific ETF | NYSE Arca |
| GMM | SPDR S&P Emerging Markets ETF | NYSE Arca |
| GNR | SPDR S&P Global Natural Resources ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|---|-----------|
| GOVT | iShares Core US Treasury Bond ETF | NYSE Arca |
| GREK | Global X FTSE Greece 20 ETF | NYSE Arca |
| GSG | iShares S&P GSCI Commodity Indexed Trust | NYSE Arca |
| GSLC | Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF | NYSE Arca |
| GSY | Guggenheim Enhanced Short Duration ETF | NYSE Arca |
| GUNR | FlexShares Global Upstream Natural Resources Index Fund | NYSE Arca |
| GVI | iShares Intermediate Government/Credit Bond ETF | NYSE Arca |
| GWL | SPDR S&P World ex-US ETF | NYSE Arca |
| GWX | SPDR S&P International Small Cap ETF | NYSE Arca |
| GXC | SPDR S&P China ETF | NYSE Arca |
| GYLD | Arrow Dow Jones Global Yield ETF | NYSE Arca |
| HACK | PureFunds ISE Cyber Security ETF | NYSE Arca |
| HAO | Guggenheim China Small Cap ETF | NYSE Arca |
| HDGE | AdvisorShares Ranger Equity Bear ETF | NYSE Arca |
| HDV | iShares High Dividend ETF JDR | NYSE Arca |
| HEDJ | WisdomTree Europe Hedged Equity Fund | NYSE Arca |
| HEEM | iShares Currency Hedged MSCI Emerging Markets ETF | NYSE Arca |
| HEFA | iShares Currency Hedged MSCI EAFE ETF | NYSE Arca |
| HEWG | iShares Currency Hedged MSCI Germany ETF | NYSE Arca |
| HEWJ | iShares Currency Hedged MSCI Japan ETF | NYSE Arca |
| HEZU | iShares Currency Hedged MSCI Eurozone ETF | NYSE Arca |
| HYD | Market Vectors High Yield Municipal Index ETF | NYSE Arca |
| HYEM | Market Vectors Emerging High Yield Bond ETF | NYSE Arca |
| HYG | iShares iBoxx \$ High Yield Corporate Bond ETF | NYSE Arca |
| HYLD | Peritus High Yield ETF | NYSE Arca |
| HYLS | First Trust Exchange-Traded Fund IV First Trust Tactical High Yield ETF | NASDAQ |
| HYMB | SPDR Nuveen S&P High Yield Municipal Bond ETF | NYSE Arca |
| HYS | PIMCO 0–5 Year High Yield Corporate Bond Index Exchange-Traded Fund | NYSE Arca |
| IAGG | iShares International Aggregate Bond Fund | BATS |
| IAI | iShares U.S. Broker-Dealers & Securities Exchanges ETF | NYSE Arca |
| IAT | iShares US Regional Banks ETF | NYSE Arca |
| IAU | iShares Gold Trust | NYSE Arca |
| IBB | iShares Nasdaq Biotechnology ETF | NASDAQ |
| ICF | iShares Cohen & Steers REIT ETF | NYSE Arca |
| IDLB | PowerShares FTSE International Low Beta Equal Weight Portfolio | NASDAQ |
| IDLV | PowerShares S&P International Developed Low Volatility Portfolio | NYSE Arca |
| IDU | iShares US Utilities ETF | NYSE Arca |
| IDV | iShares International Select Dividend ETF | NYSE Arca |
| IEF | iShares 7–10 Year Treasury Bond ETF | NYSE Arca |
| IEFA | iShares Core MSCI EAFE ETF | NYSE Arca |
| IEI | iShares 3–7 Year Treasury Bond ETF | NYSE Arca |
| IEMG | iShares Core MSCI Emerging Markets ETF JDR | NYSE Arca |
| IEO | iShares U.S. Oil & Gas Exploration & Production ETF | NYSE Arca |
| IEUR | iShares Core MSCI Europe ETF | NYSE Arca |
| IEV | iShares Europe ETF | NYSE Arca |
| IEZ | iShares U.S. Oil Equipment & Services ETF | NYSE Arca |
| IFGL | iShares International Developed Real Estate ETF | NASDAQ |
| IFV | First Trust Dorsey Wright International Focus 5 ETF | NASDAQ |
| IGE | iShares North American Natural Resources ETF | NYSE Arca |
| IGF | iShares Global Infrastructure ETF | NYSE Arca |
| IGM | iShares North American Tech ETF | NYSE Arca |
| IGOV | iShares International Treasury Bond ETF | NASDAQ |
| IGV | iShares North American Tech-Software ETF | NYSE Arca |
| IHDG | WisdomTree International Hedged Quality Dividend Growth Fund | NYSE Arca |
| IHE | iShares US Pharmaceuticals ETF | NYSE Arca |
| IHF | iShares U.S. Healthcare Providers ETF | NYSE Arca |
| IHI | iShares U.S. Medical Devices ETF | NYSE Arca |
| IJH | iShares Core S&P Mid-Cap ETF | NYSE Arca |
| IJJ | iShares S&P Mid-Cap 400 Value ETF | NYSE Arca |
| IJK | iShares S&P Mid-Cap 400 Growth ETF | NYSE Arca |
| IJR | iShares Core S&P Small-Cap ETF | NYSE Arca |
| IJS | iShares S&P Small-Cap 600 Value ETF | NYSE Arca |
| IJT | iShares S&P Small-Cap 600 Growth ETF | NYSE Arca |
| ILF | iShares Latin America 40 ETF | NYSE Arca |
| IMLP | iPath S&P MLP ETN | NYSE Arca |
| INDA | iShares MSCI India ETF | BATS |
| INDY | iShares India 50 ETF | NASDAQ |
| IOO | iShares Global 100 ETF | NYSE Arca |
| IPAC | iShares Core MSCI Pacific ETF | NYSE Arca |
| IQDF | FlexShares International Quality Dividend Index Fund | NYSE Arca |
| ISTB | iShares Core 1–5 Year USD Bond ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|--|-----------|
| ITA | iShares US Aerospace & Defense ETF | NYSE Arca |
| ITB | iShares U.S. Home Construction ETF | NYSE Arca |
| ITE | SPDR Barclays Intermediate Term Treasury ETF | NYSE Arca |
| ITM | Market Vectors Intermediate Municipal ETF | NYSE Arca |
| ITOT | iShares Core S&P Total US Stock Market ETF | NYSE Arca |
| ITR | SPDR Barclays Intermediate Term Corporate Bond ETF | NYSE Arca |
| IUSG | iShares Core US Growth ETF | NYSE Arca |
| IUSV | iShares Core US Value ETF | NYSE Arca |
| IVE | iShares S&P 500 Value ETF | NYSE Arca |
| IVV | iShares Core S&P 500 ETF | NYSE Arca |
| IVW | iShares S&P 500 Growth ETF | NYSE Arca |
| IWB | iShares Russell 1000 ETF | NYSE Arca |
| IWC | iShares Micro-Cap ETF | NYSE Arca |
| IWD | iShares Russell 1000 Value ETF | NYSE Arca |
| IWF | iShares Russell 1000 Growth ETF | NYSE Arca |
| IWM | iShares Russell 2000 ETF | NYSE Arca |
| IWN | iShares Russell 2000 Value ETF | NYSE Arca |
| IWO | iShares Russell 2000 Growth ETF | NYSE Arca |
| IWP | iShares Russell Mid-Cap Growth ETF | NYSE Arca |
| IWR | iShares Russell Mid-Cap ETF | NYSE Arca |
| IWS | iShares Russell Mid-Cap Value ETF | NYSE Arca |
| IWV | iShares Russell 3000 ETF | NYSE Arca |
| IWY | iShares Russell Top 200 Growth ETF | NYSE Arca |
| IXC | iShares Global Energy ETF | NYSE Arca |
| IXG | iShares Global Financials ETF | NYSE Arca |
| IXJ | iShares Global Healthcare ETF | NYSE Arca |
| IXN | iShares Global Tech ETF | NYSE Arca |
| IXP | iShares Global Telecom ETF | NYSE Arca |
| IXUS | iShares Core MSCI Total International Stock ETF | NYSE Arca |
| IYC | iShares U.S. Consumer Services ETF | NYSE Arca |
| IYE | iShares U.S. Energy ETF | NYSE Arca |
| IYF | iShares US Financials ETF | NYSE Arca |
| IYG | iShares U.S. Financial Services ETF | NYSE Arca |
| IYH | iShares U.S. Healthcare ETF | NYSE Arca |
| IYJ | iShares U.S. Industrials ETF | NYSE Arca |
| IYK | iShares US Consumer Goods ETF | NYSE Arca |
| IYM | iShares U.S. Basic Materials ETF | NYSE Arca |
| IYR | iShares U.S. Real Estate ETF | NYSE Arca |
| IYT | iShares Transportation Average ETF | NYSE Arca |
| IYW | iShares US Technology ETF | NYSE Arca |
| IYY | iShares Dow Jones U.S. ETF | NYSE Arca |
| IYZ | iShares US Telecommunications ETF | NYSE Arca |
| JKD | iShares Morningstar Large-Cap ETF | NYSE Arca |
| JKE | iShares Morningstar Large-Cap Growth ETF | NYSE Arca |
| JKG | iShares Morningstar Mid-Cap ETF | NYSE Arca |
| JNK | SPDR Barclays High Yield Bond ETF | NYSE Arca |
| JO | iPath Bloomberg Coffee Subindex Total Return ETN | NYSE Arca |
| KBE | SPDR S&P Bank ETF | NYSE Arca |
| KBWB | PowerShares KBW Bank Portfolio | NYSE Arca |
| KIE | SPDR S&P Insurance ETF | NYSE Arca |
| KRE | SPDR S&P Regional Banking ETF | NYSE Arca |
| KWEB | KraneShares CSI China Internet ETF | NASDAQ |
| KXI | iShares Global Consumer Staples ETF | NYSE Arca |
| LEMB | iShares Emerging Markets Local Currency Bond ETF | NYSE Arca |
| LQD | iShares iBoxx \$ Investment Grade Corporate Bond ETF | NYSE Arca |
| LWC | SPDR Barclays Long Term Corporate Bond ETF | NYSE Arca |
| MBB | iShares MBS ETF | NYSE Arca |
| MCHI | iShares MSCI China ETF | NYSE Arca |
| MDIV | First Trust Multi-Asset Diversified Income Index Fund | NASDAQ |
| MDY | SPDR S&P MidCap 400 ETF Trust | NYSE Arca |
| MDYG | SPDR S&P 400 Mid Cap Growth ETF | NYSE Arca |
| MGC | Vanguard Mega Cap ETF | NYSE Arca |
| MGK | Vanguard Mega Cap Growth ETF | NYSE Arca |
| MGV | Vanguard Mega Cap Value ETF | NYSE Arca |
| MINT | PIMCO Enhanced Short Maturity Active Exchange-Traded Fund | NYSE Arca |
| MLPA | Global X MLP ETF | NYSE Arca |
| MLPI | ETRACS Alerian MLP Infrastructure Index ETN | NYSE Arca |
| MLPN | Credit Suisse X-Links Cushing MLP Infrastructure ETNs due April 20, 2020 | NYSE Arca |
| MLPX | Global X MLP & Energy Infrastructure ETF | NYSE Arca |
| MOAT | Market Vectors Morningstar Wide Moat ETF | NYSE Arca |
| MOO | Market Vectors Agribusiness ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|---|-----------|
| MTUM | iShares MSCI USA Momentum Factor ETF | NYSE Arca |
| MUB | iShares National AMT-Free Muni Bond ETF | NYSE Arca |
| MXI | iShares Global Materials ETF | NYSE Arca |
| NANR | SPDR S&P North American Natural Resources ETF | NYSE Arca |
| NEAR | iShares Short Maturity Bond ETF | BATS |
| NFLT | Virtus Newfleet Multi-Sector Unconstrained Bond ETF | NYSE Arca |
| NFRA | FlexShares STOXX Global Broad Infrastructure Index Fund | NYSE Arca |
| NOBL | ProShares S&P 500 Dividend Aristocrats ETF | NYSE Arca |
| OEF | iShares S&P 100 ETFJDR | NYSE Arca |
| OIH | Market Vectors Oil Service ETF | NYSE Arca |
| OIL | iPath Goldman Sachs Crude Oil Total Return Index ETN | NYSE Arca |
| ONEO | SPDR Russell 1000 Momentum Focus ETF | NYSE Arca |
| ONEQ | Fidelity NASDAQ Composite Index Tracking Stock ETF | NASDAQ |
| ONEV | SPDR Russell 1000 Low Volatility Focus ETF | NYSE Arca |
| ONEY | SPDR Russell 1000 Yield Focus ETF | NYSE Arca |
| PALL | ETFS Physical Palladium Shares | NYSE Arca |
| PBE | Powershares Dynamic Biotechnology & Genome Portfolio | NYSE Arca |
| PBJ | Powershares Dynamic Food & Beverage Portfolio | NYSE Arca |
| PBP | PowerShares S&P 500 BuyWrite Portfolio | NYSE Arca |
| PCEF | PowerShares CEF Income Composite Portfolio | NYSE Arca |
| PCY | PowerShares Emerging Markets Sovereign Debt Portfolio | NYSE Arca |
| PDP | PowerShares DWA Momentum Portfolio | NYSE Arca |
| PEK | Market Vectors ChinaAMC A-Share ETF | NYSE Arca |
| PEY | PowerShares High Yield Equity Dividend Achievers Portfolio | NYSE Arca |
| PEZ | PowerShares DWA Consumer Cyclical Momentum Portfolio | NYSE Arca |
| PFF | iShares US Preferred Stock ETF | NYSE Arca |
| PGF | PowerShares Financial Preferred Portfolio | NYSE Arca |
| PGX | PowerShares Preferred Portfolio | NYSE Arca |
| PHB | PowerShares Fundamental High Yield Corporate Bond Portfolio | NYSE Arca |
| PHDG | PowerShares S&P 500 Downside Hedged Portfolio | NYSE Arca |
| PHO | PowerShares Water Resources Portfolio | NYSE Arca |
| PHYS | Sprott Physical Gold Trust | NYSE Arca |
| PID | PowerShares International Dividend Achievers Portfolio | NYSE Arca |
| PIE | PowerShares DWA Emerging Markets Momentum Portfolio | NYSE Arca |
| PIN | PowerShares India Portfolio | NYSE Arca |
| PIZ | PowerShares DWA Developed Markets Momentum Portfolio | NYSE Arca |
| PJP | Powershares Dynamic Pharmaceuticals Portfolio | NYSE Arca |
| PKW | PowerShares Buyback Achievers Portfolio | NYSE Arca |
| PLW | PowerShares 1–30 Laddered Treasury Portfolio | NYSE Arca |
| PNQI | PowerShares NASDAQ Internet Portfolio | NASDAQ |
| PPH | Market Vectors Pharmaceutical ETF | NYSE Arca |
| PPLT | ETFS Physical Platinum Shares | NYSE Arca |
| PRF | Powershares FTSE RAFI US 1000 Portfolio | NYSE Arca |
| PRFZ | PowerShares FTSE RAFI US 1500 Small-Mid Portfolio | NASDAQ |
| PRN | PowerShares Dynamic Industrials Sector Portfolio | NYSE Arca |
| PSCH | PowerShares S&P SmallCap Health Care Portfolio | NASDAQ |
| PSCT | PowerShares S&P SmallCap Information Technology Portfolio | NASDAQ |
| PSK | SPDR Wells Fargo Preferred Stock ETF | NYSE Arca |
| PSL | PowerShares DWA Consumer Staples Momentum Portfolio | NYSE Arca |
| PSLV | Sprott Physical Silver Trust | NYSE Arca |
| PSP | PowerShares Global Listed Private Equity Portfolio | NYSE Arca |
| PSQ | ProShares Short QQQ | NYSE Arca |
| PTF | PowerShares DWA Technology Momentum Portfolio | NYSE Arca |
| PTH | PowerShares DWA Healthcare Momentum Portfolio | NYSE Arca |
| PTLC | Pacer Trendpilot 750 ETF | BATS |
| PWV | PowerShares Dynamic Large Cap Value Portfolio | NYSE Arca |
| PXF | PowerShares FTSE RAFI Developed Markets ex-U.S. Portfolio | NYSE Arca |
| PXH | PowerShares FTSE RAFI Emerging Markets Portfolio | NYSE Arca |
| PZA | PowerShares National AMT-Free Municipal Bond Portfolio | NYSE Arca |
| QABA | First Trust NASDAQ ABA Community Bank Index Fund | NASDAQ |
| QAI | IndexIQ ETF Trust—IQ Hedge Multi-Strategy Tracker ETF | NYSE Arca |
| QDF | FlexShares Quality Dividend Index Fund | NYSE Arca |
| QLTA | iShares Aaa—A Rated Corporate Bond ETF | NYSE Arca |
| QQEW | First Trust NASDAQ-100 Equal Weighted Index Fund | NASDAQ |
| QQQ | Powershares QQQ Trust Series 1 | NASDAQ |
| QUAL | iShares MSCI USA Quality Factor ETF | NYSE Arca |
| RCD | Guggenheim S&P 500 Equal Weight Consumer Discretionary ETF | NYSE Arca |
| REM | iShares Mortgage Real Estate Capped ETF | NYSE Arca |
| REZ | iShares Residential Real Estate Capped ETF | NYSE Arca |
| RFG | Guggenheim S&P Midcap 400 Pure Growth ETF | NYSE Arca |
| RHS | Guggenheim S&P 500 Equal Weight Consumer Staples ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|--|-----------|
| RIGS | Riverfront Strategic Income Fund | NYSE Arca |
| RJI | ELEMENTS Linked to the Rogers International Commodity Index—Total Return | NYSE Arca |
| RPG | Guggenheim S&P 500 Pure Growth ETF | NYSE Arca |
| RPV | Guggenheim S&P 500 Pure Value ETF | NYSE Arca |
| RSP | Guggenheim S&P 500 Equal Weight ETF | NYSE Arca |
| RSX | Market Vectors Russia ETF | NYSE Arca |
| RTH | Market Vectors Retail ETF | NYSE Arca |
| RWM | ProShares Short Russell 2000 | NYSE Arca |
| RWO | SPDR Dow Jones Global Real Estate ETF | NYSE Arca |
| RWR | SPDR Dow Jones REIT ETF | NYSE Arca |
| RWX | SPDR Dow Jones International Real Estate ETF | NYSE Arca |
| RXI | iShares Global Consumer Discretionary ETF | NYSE Arca |
| RYE | Guggenheim S&P 500 Equal Weight Energy ETF | NYSE Arca |
| RYF | Guggenheim S&P 500 Equal Weight Financials ETF | NYSE Arca |
| RYH | Guggenheim S&P 500 Equal Weight Healthcare ETF | NYSE Arca |
| RYT | Guggenheim S&P 500 Equal Weight Technology ETF | NYSE Arca |
| RZG | Guggenheim S&P Smallcap 600 Pure Growth ETF | NYSE Arca |
| SBIO | ALPS Medical Breakthroughs ETF | NYSE Arca |
| SCHA | Schwab US Small-Cap ETF | NYSE Arca |
| SCHB | Schwab US Broad Market ETF | NYSE Arca |
| SCHC | Schwab International Small-Cap Equity ETF | NYSE Arca |
| SCHD | Schwab US Dividend Equity ETF | NYSE Arca |
| SCHS | Schwab Emerging Markets Equity ETF | NYSE Arca |
| SCHF | Schwab International Equity ETF | NYSE Arca |
| SCHG | Schwab U.S. Large-Cap Growth ETF | NYSE Arca |
| SCHH | Schwab U.S. REIT ETF | NYSE Arca |
| SCHM | Schwab U.S. Mid-Cap ETF | NYSE Arca |
| SCHO | Schwab Short-Term U.S. Treasury ETF | NYSE Arca |
| SCHP | Schwab US TIPs ETF | NYSE Arca |
| SCHR | Schwab Intermediate-Term U.S. Treasury ETF | NYSE Arca |
| SCHV | Schwab U.S. Large-Cap Value ETF | NYSE Arca |
| SCHX | Schwab US Large-Cap ETF | NYSE Arca |
| SCHZ | Schwab U.S. Aggregate Bond ETF | NYSE Arca |
| SCIF | Market Vectors India Small-Cap Index ETF | NYSE Arca |
| SCJ | iShares MSCI Japan Small-Cap ETF | NYSE Arca |
| SCPB | SPDR Barclays Short Term Corporate Bond ETF | NYSE Arca |
| SCZ | iShares MSCI EAFE Small-Cap ETF | NYSE Arca |
| SDIV | Global X SuperDividend ETF | NYSE Arca |
| SDOG | ALPS Sector Dividend Dogs ETF | NYSE Arca |
| SDY | SPDR S&P Dividend ETF | NYSE Arca |
| SGOL | ETFS Physical Swiss Gold Shares | NYSE Arca |
| SH | ProShares Short S&P500 | NYSE Arca |
| SHM | SPDR Nuveen Barclays Short Term Municipal Bond ETF | NYSE Arca |
| SHV | iShares Short Treasury Bond ETF | NYSE Arca |
| SHY | iShares 1–3 Year Treasury Bond ETF | NYSE Arca |
| SHYG | iShares 0–5 Year High Yield Corporate Bond ETF | NYSE Arca |
| SJB | ProShares Short High Yield | NYSE Arca |
| SJNK | SPDR Barclays Short Term High Yield Bond ETF | NYSE Arca |
| SKYY | First Trust ISE Cloud Computing Index Fund | NASDAQ |
| SLV | iShares Silver Trust | NYSE Arca |
| SLYG | SPDR S&P 600 Small Cap Growth ETF | NYSE Arca |
| SLYV | SPDR S&P 600 Small Cap Value ETF | NYSE Arca |
| SMH | Market Vectors Semiconductor ETF | NYSE Arca |
| SNLN | Highland/iBoxx Senior Loan ETF | NYSE Arca |
| SOXX | iShares PHLX Semiconductor ETF | NASDAQ |
| SPHD | PowerShares S&P 500 High Dividend Low Volatility Portfolio | NYSE Arca |
| SPHQ | PowerShares S&P 500 High Quality Portfolio | NYSE Arca |
| SPLV | PowerShares S&P 500 Low Volatility Portfolio | NYSE Arca |
| SPY | SPDR S&P 500 ETF Trust | NYSE Arca |
| SPYG | SPDR S&P 500 Growth ETF | NYSE Arca |
| SPYX | SPDR S&P 500 Fossil Fuel Free ETF | NYSE Arca |
| SRLN | SPDR Blackstone/GSO Senior Loan ETF | NYSE Arca |
| STIP | iShares 0–5 Year TIPS Bond ETF | NYSE Arca |
| STPZ | PIMCO 1–5 Year U.S. TIPS Index Exchange-Traded Fund | NYSE Arca |
| SUB | iShares Short-Term National AMT-Free Muni Bond ETF | NYSE Arca |
| SVXY | ProShares Short VIX Short-Term Futures ETF | NYSE Arca |
| TAN | Guggenheim Solar ETF | NYSE Arca |
| TBF | ProShares Short 20+ Year Treasury | NYSE Arca |
| TDIV | First Trust NASDAQ Technology Dividend Index Fund | NASDAQ |
| TDDT | FlexShares iBoxx 3-Year Target Duration TIPS Index Fund | NYSE Arca |
| TFI | SPDR Nuveen Barclays Municipal Bond ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|--|-----------|
| THD | iShares MSCI Thailand Capped ETF | NYSE Arca |
| TIP | iShares TIPS Bond ETF | NYSE Arca |
| TLH | iShares 10–20 Year Treasury Bond ETF | NYSE Arca |
| TLO | SPDR Barclays Long Term Treasury ETF | NYSE Arca |
| TLT | iShares 20+ Year Treasury Bond ETF | NYSE Arca |
| TLTD | FlexShares Morningstar Developed Markets ex-US Factor Tilt Index Fund | NYSE Arca |
| LTLE | FlexShares Morningstar Emerging Markets Factor Tilt Index Fund | NYSE Arca |
| TOTL | SPDR Doubleline Total Return Tactical ETF | NYSE Arca |
| TUR | iShares MSCI Turkey ETF | NYSE Arca |
| UNG | United States Natural Gas Fund LP | NYSE Arca |
| URTH | iShares MSCI World ETF | NYSE Arca |
| USCI | United States Commodity Index Fund | NYSE Arca |
| USDU | WisdomTree Bloomberg U.S. Dollar Bullish Fund | NYSE Arca |
| USLB | PowerShares Russell Low Beta Equal Weight Portfolio | NASDAQ |
| USMV | iShares MSCI USA Minimum Volatility ETF | NYSE Arca |
| USO | United States Oil Fund LP | NYSE Arca |
| UUP | PowerShares DB US Dollar Index Bullish Fund | NYSE Arca |
| VAW | Vanguard Materials ETF | NYSE Arca |
| VB | Vanguard Small-Cap ETF | NYSE Arca |
| VBK | Vanguard Small-Cap Growth ETF | NYSE Arca |
| VBR | Vanguard Small-Cap Value ETF | NYSE Arca |
| VCIT | Vanguard Intermediate-Term Corporate Bond ETF | NASDAQ |
| VCLT | Vanguard Long-Term Corporate Bond ETF | NASDAQ |
| VCR | Vanguard Consumer Discretionary ETF | NYSE Arca |
| VCSH | Vanguard Short-Term Corporate Bond ETF | NASDAQ |
| VDC | Vanguard Consumer Staples ETF | NYSE Arca |
| VDE | Vanguard Energy ETF | NYSE Arca |
| VEA | Vanguard FTSE Developed Markets ETF | NYSE Arca |
| VEU | Vanguard FTSE All-World ex-US ETF | NYSE Arca |
| VFH | Vanguard Financials ETF | NYSE Arca |
| VGIT | Vanguard Intermediate-Term Government Bond ETF | NASDAQ |
| VGK | Vanguard FTSE Europe ETF | NYSE Arca |
| VGLT | Vanguard Long-Term Government Bond ETF | NASDAQ |
| VGSH | Vanguard Short-Term Government Bond ETF | NASDAQ |
| VGT | Vanguard Information Technology ETF | NYSE Arca |
| VHT | Vanguard Health Care ETF | NYSE Arca |
| VIDI | Vident International Equity Fund | NASDAQ |
| VIG | Vanguard Dividend Appreciation ETF | NYSE Arca |
| VIIX | VelocityShares VIX Short Term ETN | NASDAQ |
| VIS | Vanguard Industrials ETF | NYSE Arca |
| VIXY | ProShares VIX Short-Term Futures ETF | NYSE Arca |
| VMBS | Vanguard Mortgage-Backed Securities ETF | NASDAQ |
| VNM | Market Vectors Vietnam ETF | NYSE Arca |
| VNQ | Vanguard REIT ETF | NYSE Arca |
| VNQI | Vanguard Global ex-U.S. Real Estate ETF | NASDAQ |
| VO | Vanguard Mid-Cap ETF | NYSE Arca |
| VOE | Vanguard Mid-Cap Value ETF | NYSE Arca |
| VONE | Vanguard Russell 1000 | NASDAQ |
| VONG | Vanguard Russell 1000 Growth ETF | NASDAQ |
| VONV | Vanguard Russell 1000 Value | NASDAQ |
| VOO | Vanguard S&P 500 ETF | NYSE Arca |
| VOOG | Vanguard S&P 500 Growth ETF | NYSE Arca |
| VOT | Vanguard Mid-Cap Growth ETF | NYSE Arca |
| VOX | Vanguard Telecommunication Services ETF | NYSE Arca |
| VPL | Vanguard FTSE Pacific ETF | NYSE Arca |
| VPU | Vanguard Utilities ETF | NYSE Arca |
| VQT | Barclays ETN+ ETNs Linked to the S&P 500 Dynamic VEQTORTM Total Return Index | NYSE Arca |
| VRP | PowerShares Variable Rate Preferred Portfolio | NYSE Arca |
| VSS | Vanguard FTSE All World ex-US Small-Cap ETF | NYSE Arca |
| VT | Vanguard Total World Stock ETF | NYSE Arca |
| VTEB | Vanguard Tax-Exempt Bond Index ETF | NYSE Arca |
| VTI | Vanguard Total Stock Market ETF | NYSE Arca |
| VTIP | Vanguard Short-Term Inflation-Protected Securities ETF | NASDAQ |
| VTV | Vanguard Value ETF | NYSE Arca |
| VTWO | Vanguard Russell 2000 | NASDAQ |
| VUG | Vanguard Growth ETF | NYSE Arca |
| VUSE | Vident Core US Equity ETF | NASDAQ |
| VV | Vanguard Large-Cap ETF | NYSE Arca |
| VWO | Vanguard FTSE Emerging Markets ETF | NYSE Arca |
| VWOB | Vanguard Emerging Markets Government Bond ETF | NASDAQ |
| VXF | Vanguard Extended Market ETF | NYSE Arca |

APPENDIX A—SCHEDULE 1—Continued
(AS OF JANUARY 4, 2016)

| Ticker | ETP name | Exchange |
|--------|---|-----------|
| VXUS | Vanguard Total International Stock ETF | NASDAQ |
| VXX | iPATH S&P 500 VIX Short-Term Futures ETN | NYSE Arca |
| VXZ | iPATH S&P 500 VIX Mid-Term Futures ETN | NYSE Arca |
| VYM | Vanguard High Dividend Yield ETF | NYSE Arca |
| WIP | SPDR DB International Government Inflation-Protected Bond ETF | NYSE Arca |
| XBI | SPDR S&P Biotech ETF | NYSE Arca |
| XES | SPDR S&P Oil & Gas Equipment & Services ETF | NYSE Arca |
| XHB | SPDR S&P Homebuilders ETF | NYSE Arca |
| XHS | SPDR S&P Health Care Services ETF | NYSE Arca |
| XIV | VelocityShares Daily Inverse VIX Short Term ETN | NASDAQ |
| XLB | Materials Select Sector SPDR Fund | NYSE Arca |
| XLE | Energy Select Sector SPDR Fund | NYSE Arca |
| XLF | Financial Select Sector SPDR Fund | NYSE Arca |
| XLG | Guggenheim Russell Top 50 Mega Cap ETF | NYSE Arca |
| XLI | Industrial Select Sector SPDR Fund | NYSE Arca |
| XLK | Technology Select Sector SPDR Fund | NYSE Arca |
| XLP | Consumer Staples Select Sector SPDR Fund | NYSE Arca |
| XLU | Utilities Select Sector SPDR Fund | NYSE Arca |
| XLV | Health Care Select Sector SPDR Fund | NYSE Arca |
| XLY | Consumer Discretionary Select Sector SPDR Fund | NYSE Arca |
| XME | SPDR S&P Metals & Mining ETF | NYSE Arca |
| XOP | SPDR S&P Oil & Gas Exploration & Production ETF | NYSE Arca |
| XPH | SPDR S&P Pharmaceuticals ETF | NYSE Arca |
| XRT | SPDR S&P Retail ETF | NYSE Arca |
| XSD | SPDR S&P Semiconductor ETF | NYSE Arca |
| XTN | SPDR S&P Transportation ETF | NYSE Arca |
| ZIV | VelocityShares Daily Inverse VIX Medium Term ETN | NASDAQ |
| ZROZ | PIMCO 25+ Year Zero Coupon U.S. Treasury Index Exchange-Traded Fund | NYSE Arca |

Appendix B—Data

Unless otherwise specified, the following data shall be collected and transmitted to the SEC in an agreed-upon format on a monthly basis, to be provided 30 calendar days following month end. Unless otherwise specified, the Primary Listing Exchanges shall be responsible for collecting and transmitting the data to the SEC. Data collected in connection with Sections II(E)—(G) below shall be transmitted to the SEC with a request for confidential treatment under the Freedom of Information Act. 5 U.S.C. 552, and the SEC’s rules and regulations thereunder.

I. Summary Statistics

- A. Frequency with which NMS Stocks enter a Limit State. Such summary data shall be broken down as follows:
 - 1. Partition stocks by category
 - a. Tier 1 non-ETP issues > \$3.00
 - b. Tier 1 non-ETP issues >= \$0.75 and <=\$3.00
 - c. Tier 1 non-ETP issues < \$0.75
 - d. Tier 1 non-leveraged ETPs in each of above categories
 - e. Tier 1 leveraged ETPs in each of above categories
 - f. Tier 2 non-ETPs in each of above categories
 - g. Tier 2 non-leveraged ETPs in each of above categories
 - h. Tier 2 leveraged ETPs in each of above categories
 - 2. 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
- 3. Track reasons for entering a Limit State, such as:
 - a. Liquidity gap –price reverts from a Limit State Quotation and returns to trading within the Price Bands
 - b. Broken trades
 - c. Primary Listing Exchange manually declares a Trading Pause pursuant to Section (VII)(2) of the Plan
 - d. Other
- B. Determine (1), (2) and (3) for when a Trading Pause has been declared for an NMS Stock pursuant to the Plan.

II. Raw Data (all Participants, except A–E, which are for the Primary Listing Exchanges only)

- A. Record of every Straddle State.
 - 1. Ticker, date, time entered, time exited, flag for ending with Limit State, flag for ending with manual override.
 - 2. Pipe delimited with field names as first record.
- B. Record of every Price Band
 - 1. Ticker, date, time at beginning of Price Band, Upper Price Band, Lower Price Band
 - 2. Pipe delimited with field names as first record
- C. Record of every Limit State
 - 1. Ticker, date, time entered, time exited, flag for halt
 - 2. Pipe delimited with field names as first record
- D. Record of every Trading Pause or halt
 - 1. Ticker, date, time entered, time exited, type of halt (i.e., regulatory halt, non-

- regulatory halt, Trading Pause pursuant to the Plan, other)
- 2. Pipe delimited with field names as first record
- E. Data set or orders entered into reopening auctions during halts or Trading Pauses
 - 1. Arrivals, Changes, Cancels, # shares, limit/market, side, Limit State side
 - 2. Pipe delimited with field name as first record
- F. Data set of order events received during Limit States
- G. 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 NBBO 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

III. On May 28, 2015, Participants provided to the SEC a supplemental joint assessment relating to the impact of the Plan and calibration of the Percentage Parameters as follows:

- A. Assess the statistical and economic impact on liquidity of approaching Price Bands.
- B. Assess the statistical and economic impact of the Price Bands on erroneous trades.
- C. Assess the statistical and economic impact of the appropriateness of the Percentage Parameters used for the Price Bands.
- D. Assess whether the Limit State is the appropriate length to allow for liquidity replenishment when a Limit State is reached because of a temporary liquidity gap.
- E. Evaluate concerns from the options markets regarding the statistical and economic impact of Limit States on liquidity and market quality in the options markets. (Participants that operate options exchange should also prepare such assessment reports.)
- F. Assess whether the process for entering a Limit State should be adjusted and whether Straddle States are problematic.
- G. Assess whether the process for exiting a Limit State should be adjusted.
- H. Assess whether the Trading Pauses are too long or short and whether the reopening procedures should be adjusted.

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BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-77222; File No. SR-BATS-2016-17]

Self-Regulatory Organizations; BATS Exchange, Inc.; Notice of Filing of a Proposed Rule Change, as Modified by Amendment No. 1 Thereto, To Amend Its Rules Regarding the Auction Process for Securities Subject to an Initial Public Offering

February 24, 2016.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b-4 thereunder,² notice is hereby given that on February 10, 2016, BATS Exchange, Inc. (the “Exchange” or “BATS”) filed with the Securities and Exchange Commission

(“SEC” or “Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. On February 22, 2016, the Exchange filed Amendment No. 1 to the proposal.³ The Commission is publishing this notice to solicit comments on the proposed rule change, as modified by Amendment No. 1, from interested persons.

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

The Exchange filed a proposal to amend Exchange Rule 11.23 entitled “Auctions” to: (i) Modify the definition of the term “Eligible Auction Order” under paragraph (a)(8) to refine the types of orders that may participate in an auction for a BATS listed corporate security⁴ in an initial public offering (“IPO”) on the Exchange (“IPO Auction”) and make a related change to Exchange Rule 11.1, Hours of Trading and Trading Days; (ii) extend the Quote-Only Period⁵ under paragraph (d)(1)(A); (iii) state that the Quote-Only Period may be extended in the event of an Exchange technical or systems issue under proposed paragraph (d)(2)(B)(iv); and (iv) make technical changes to paragraphs (b)(1)(A), (c)(1)(A), and (d)(2).

The text of the proposed rule change is available at the Exchange’s Web site at www.batstrading.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 Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in Sections A, B, and C below, of

the most significant parts of such statements.

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

1. Purpose

The Exchange proposes to amend Exchange Rule 11.23 entitled “Auctions” to: (i) Modify the definition of the term “Eligible Auction Order” under paragraph (a)(8) to refine the types of orders that may participate in an IPO Auction and make a related change to Exchange Rule 11.1, Hours of Trading and Trading Days; (ii) extend the Quote-Only Period under paragraph (d)(1)(A); (iii) state that the Quote-Only Period may be extended in the event of an Exchange technical or systems issue under proposed paragraph (d)(2)(B)(iv); and (iv) make technical changes to paragraphs (b)(1)(A), (c)(1)(A), and (d)(2).

Eligible Auction Orders

The Exchange proposes to refine the types of orders that may participate in an IPO Auction for a BATS listed corporate security by amending the definition of Eligible Auction Orders under Exchange Rule 11.23(a)(8) to either reject, convert, or ignore certain types of orders, as set forth below. As proposed, Limit Orders⁶ and BATS Market Orders,⁷ the two main types of orders offered by the Exchange, would be allowed to participate in an IPO Auction for a BATS listed corporate security. The Exchange does not propose to amend the types of Eligible Auction Orders that may participate in an auction for a newly listed Exchange Traded Product.⁸ The Exchange believes refining the types of orders processed in an IPO Auction and/or placed onto the BATS Book⁹ following such IPO Auction would simplify and reduce the complexity of the IPO Auction for BATS listed corporate securities. The Exchange believes doing so would aid in ensuring a robust but streamlined IPO Auction process for a newly listed corporate securities.

Types of Orders to be Accepted or Rejected. The term Eligible Auction Order is currently defined under Exchange Rule 11.23(a)(8) as any Market-On-Open (“MOO”),¹⁰ Limit-On-

³ In Amendment No. 1, the Exchange proposes to correct a technical error regarding incorrect terminology used in a footnote and to clarify a sentence regarding an order with a time-in-force of RHO that would be converted to an order with a time-in-force of Day under the proposed rule change.

⁴ A BATS listed corporate security is a security listed on the Exchange pursuant to Chapter 14 of the Exchange’s Rules that is not an Exchange Traded Product (“ETP”) listed on the Exchange pursuant to Exchange Rule 14.11. See also *infra* note 7.

⁵ See Exchange Rule 11.23(a)(17).

⁶ See Exchange Rule 11.9(a)(1).

⁷ See Exchange Rule 11.9(a)(2).

⁸ An Exchange Traded Product is a security that is listed on the Exchange pursuant to Rule 14.11.

⁹ See Exchange Rule 1.5(e).

¹⁰ See Exchange Rule 11.23(a)(16).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.