

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-81720; File No. 4-631)

September 26, 2017

Joint Industry Plan; Notice of Filing and Immediate Effectiveness of the Fifteenth Amendment to the National Market System Plan to Address Extraordinary Market Volatility by Bats BZX Exchange, Inc., Bats BYX Exchange, Inc., Bats EDGA Exchange, Inc., Bats EDGX Exchange, Inc., Chicago Stock Exchange, Inc., Financial Industry Regulatory Authority, Inc., Investors Exchange LLC, NASDAQ BX, Inc., NASDAQ PHLX LLC, The Nasdaq Stock Market LLC, NYSE National, Inc., New York Stock Exchange LLC, NYSE American LLC, and NYSE Arca, Inc.

I. Introduction

On August 31, 2017, NYSE Group, Inc., on behalf of the following parties to the National Market System Plan to Address Extraordinary Market Volatility (“the Plan”):¹ Bats BZX

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 (June 6, 2012) (File No. 4- 631). On February 20, 2013, the Commission noticed for immediate effectiveness the Second Amendment to the Plan. See Securities Exchange Act Release No. 68953, 78 FR 13113 (February 26, 2013). On April 3, 2013, the Commission approved the Third Amendment to the Plan. See Securities Exchange Act Release No. 69287, 78 FR 21483 (April 10, 2013). On August 27, 2013, the Commission noticed for immediate effectiveness the Fourth Amendment to the Plan. See Securities Exchange Act Release No. 70273, 78 FR 54321 (September 3, 2013). On September 26, 2013, the Commission approved the Fifth Amendment to the Plan. See Securities Exchange Act Release No. 70530, 78 FR 60937 (October 2, 2013). On January 7, 2014, the Commission noticed for immediate effectiveness the Sixth Amendment to the Plan. See Securities Exchange Act Release No. 71247, 79 FR 2204 (January 13, 2014). On April 3, 2014, the Commission approved the Seventh Amendment to the Plan. See Securities Exchange Act Release No. 71851, 79 FR 19687 (April 9, 2014). On February 19, 2015, the Commission approved the Eight Amendment to the Plan. See Securities Exchange Act Release No. 74323, 80 FR 10169 (February 25, 2015). On October 22, 2015, the Commission approved the Ninth Amendment to the Plan. See Securities Exchange Act Release No. 76244, 80 FR 66099 (October 28, 2015). On April 21, 2016, the Commission approved the Tenth Amendment to the Plan. See Securities Exchange Act Release No. 77679, 81 FR 24908 (April 27, 2016). On August 26, 2016, the Commission noticed for immediate effectiveness the Eleventh Amendment to the Plan. See Securities Exchange Act Release No. 78703, 81 FR 60397 (September 1, 2016). On January 19, 2017, the Commission approved the Twelfth Amendment to the Plan. See Securities Exchange Act Release No. 79845, 82 FR 8551 (January 26, 2017). On April 13, 2017, the Commission approved the Thirteenth Amendment to the Plan. See Securities Exchange Act Release No. 80455, 82

Exchange, Inc., Bats BYX Exchange, Inc., Bats EDGA Exchange, Inc., Bats EDGX Exchange, Inc., Chicago Stock Exchange, Inc., the Financial Industry Regulatory Authority, Inc. (“FINRA”), Investors Exchange LLC, NASDAQ BX, Inc., NASDAQ PHLX LLC, The NASDAQ Stock Market LLC (“Nasdaq”), New York Stock Exchange LLC (“NYSE”), NYSE Arca, Inc., NYSE American LLC, and NYSE National Inc. (collectively, the “Participants”) filed with the Securities and Exchange Commission (“Commission”) pursuant to Section 11A(a)(3) of the Securities Exchange Act of 1934 (“Exchange Act”)² and Rule 608 thereunder,³ a proposal to amend the Plan (“Fifteenth Amendment”).⁴ The proposal reflects changes unanimously approved by the Participants. The Fifteenth Amendment proposes to extend the implementation date for the twelfth amendment to the Plan (“Twelfth Amendment”) and related changes from the thirteenth amendment to the Plan (“Amendment 13 Changes”) set out in the fourteenth amendment to the Plan (“Fourteenth Amendment”), as discussed below.⁵ The Participants are filing the Fifteenth Amendment for immediate effectiveness pursuant to Rule 608(b)(3)(iii) of Regulation NMS (“Rule 608”) under the Exchange Act.⁶ The Commission is publishing this notice to solicit comments from interested persons.⁷

FR 18519 (April 19, 2017). On April 28, 2017, the Commission noticed for immediate effectiveness the Fourteenth Amendment to the Plan. See Securities Exchange Act Release No. 80549, 82 FR 20928 (May 4, 2017).

² 15 U.S.C 78k-1(a)(3).

³ 17 CFR 242.608.

⁴ See Letter from Elizabeth King, General Counsel and Corporate Secretary, NYSE, to Brent Fields, Secretary, Commission, dated August 30, 2017 (“Transmittal Letter”).

⁵ The Participants also propose a non-substantive amendment to the Plan text to reflect the name change of NYSE MKT LLC to NYSE American LLC. See Securities Exchange Act Release No. Securities Exchange Act Release No. 80283 (March 21, 2017), 82 FR 15244 (March 27, 2017) (SR-NYSEMKT-2017-14).

⁶ 17 CFR 242.608(b)(3)(iii).

⁷ 17 CFR 242.608(b)(1).

II. Description of the Plan

Set forth in this Section II is the statement of the purpose and summary of the Fourteenth Amendment, along with the information required by Rule 608(a)(4) and (5) under the Exchange Act,⁸ prepared and submitted by the Participants to the Commission.⁹

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 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 limit up-limit down requirements that would 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,¹⁰ 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 limit up-limit down requirements specified in the Plan. More specifically, the 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

⁸ See 17 CFR 242.608(a)(4) and (a)(5).

⁹ See Transmittal Letter, supra note 4.

¹⁰ Unless otherwise specified, the terms used herein have the same meaning as set forth in the Plan.

lower price band and upper price band, as provided for in Section V of the Plan. Section VI of the Plan sets forth the limit up-limit down 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 changes approved by the Commission in the twelfth amendment to the Plan provide that a Trading Pause will continue until the Primary Listing Exchange has reopened trading using its established reopening procedures, and to require that trading centers not resume trading in an NMS Stock following a Trading Pause without Price Bands for such NMS Stock. In the Statement of Purpose filed with the twelfth amendment, the Participants stated that the changes described in the twelfth amendment would be implemented no later than six months after approval of that amendment. Based on the fourteenth amendment to the Plan, the twelfth amendment must be implemented no later than the end of the third quarter of 2017.

Because the SIP technology changes necessary to implement the twelfth amendment to the Plan and the Amendment 13 Changes will not be ready by September 30, 2017, the Participants are filing this proposal to change the implementation date for the changes to the Plan set forth in the twelfth amendment and the Amendment 13 Changes to no later than November 30, 2017. Specifically, the CQS and CTA SIPs are in the process of upgrading to binary message type formats over their multicast channels and the changes described in the twelfth and thirteenth amendments to the Plan are scheduled to be implemented together with these upgrades. SIAC has announced revised implementation dates for the implementation of the CQS

and CTA new binary formats, which impacts the implementation dates for SIAC's implementation of the twelfth amendment to the Plan and the Amendment 13 Changes.¹¹

Because of a dependency on certain SIP technology changes, certain Primary Listing Exchanges will not be ready to implement the changes to their automated reopening processes following a Trading Pause, which were made pursuant to exchange rule filings in conjunction with the twelfth amendment to the Plan, by September 30, 2017. To provide for a standardized approach that would allow for extensions of a Trading Pause by the Primary Listing Exchange if equilibrium cannot be met to establish a Reopening Price within specified parameters (“automated reopening changes”), the Primary Listing Exchanges amended their rules for automated reopenings.¹² The Primary Listing Exchanges anticipate implementing the automated reopening changes commensurate with implementation of the twelfth amendment to the Plan and the Amendment 13 Changes.¹³

Accordingly, both to provide time to support the technology changes for the twelfth amendment to the Plan and to align the implementation date of the twelfth amendment and the Amendment 13 Changes with the implementation timeline for the automated reopening changes by the Primary Listing Exchanges, the Participants propose to change the implementation date

¹¹ See Updated CQS and CTS Multicast Output Binary Formats: Testing and Implementation Schedule Update 7, available here: https://www.nyse.com/publicdocs/ctaplan/notifications/trader-update/CTS_CQS%20New%20Binary%20Formats_Update_v7_06262017.pdf

¹² See Securities Exchange Act Release Nos. 79846 (January 19, 2017), 82 FR 8548 (January 26, 2017) (SR-NYSEArca-2016-130) (Approval Order); 79884 (January 26, 2017), 82 FR 8968 (February 1, 2017) (SR-BatsBZX-2016-61) (Approval Order); 79876 (January 25, 2017), 82 FR 8888 (January 31, 2017) (SR-Nasdaq-2016-131) (Approval Order).

¹³ In other words, the Participants expect that both the changes pursuant to the twelfth amendment and the Primary Listing Exchange automated reopening changes would become operative at the same time.

for the changes in the twelfth amendment to the Plan and the Amendment 13 Changes to no later than November 30, 2017. This proposed change does not require any changes to the text of the Plan.

The Participants believe that the proposed modification to the implementation schedule is technical and ministerial in nature because it simply extends the implementation period for the twelfth amendment to the Plan and does not change any substantive elements of the Plan.¹⁴ The Participants believe that the proposal to extend the implementation schedule is consistent with the goal of the twelfth amendment to the Plan, which is to reduce the potential for sequential Trading Pauses in an NMS Stock by centralizing the reopening process through the Primary Listing Exchanges, because it would align the implementation schedule for the twelfth amendment to the Plan with the implementation schedule for the automated reopening changes. The proposed amendment would therefore protect investors and the public interest and is appropriate to the maintenance of fair and orderly markets.

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

¹⁴ See, e.g., Securities Exchange Act Release Nos. 70273 (amending Section VIII.B of the Plan to establish a new implementation schedule for Phase II of the Plan) and 71247 (amending Section VIII.B of the Plan to establish a new implementation schedule for Phase II of the Plan), supra note 1.

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. The tenth amendment to the Plan was implemented on July 18, 2016. Pursuant to the proposed thirteenth amendment to the Plan, the Participants propose [sic] to extend the pilot period until April 16, 2018.¹⁵ Currently, the Participants must implement the twelfth amendment to the Plan to no later than the end of the third quarter of 2017. Pursuant to this proposed amendment, the Participants propose to extend the time frame to implement the twelfth amendment to the Plan and the Amendment 13 Changes to no later than November 30, 2017.

E. Analysis of Impact on Competition

The proposed 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, 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

¹⁵ See Securities Exchange Act Release No. 80455 (order approving the thirteenth amendment to the Plan), supra note 1.

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 July 19, 2017, the Operating Committee, duly constituted and chaired by Mr. Robert Books of Bats, 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 Fifteenth 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 amendment is consistent with the Exchange Act and the rules thereunder. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>);
- or
- Send an e-mail to rule-comments@sec.gov. Please include File Number 4-631 on the subject line.

Paper Comments:

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

All submissions should refer to File Number 4-631. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed plan amendment that are filed with the Commission, and all written communications relating to the amendment between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549,

on official business days between the hours of 10:00 am and 3:00 pm. Copies of such filing also will be available for inspection and copying at the Participants' 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 [insert date 21 days from publication in the Federal Register].

By the Commission.

Brent J. Fields
Secretary

ATTACHMENT A

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

PLAN TO ADDRESS EXTRAORDINARY MARKET VOLATILITY
SUBMITTED TO
THE SECURITIES AND EXCHANGE COMMISSION
PURSUANT TO RULE 608 OF REGULATION NMS
UNDER THE
SECURITIES EXCHANGE ACT OF 1934

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Preamble

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

I. Definitions

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

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

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

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

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

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

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

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

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

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

(K) “Participant” means a party to the Plan.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

II. Parties

(A) List of Parties

The parties to the Plan are as follows:

- (1) Bats BZX Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214
- (2) Bats BYX Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214
- (3) Bats EDGA Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214
- (4) Bats EDGX Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214
- (5) Chicago Stock Exchange, Inc.
440 South LaSalle Street
Chicago, Illinois 60605
- (6) Financial Industry Regulatory Authority, Inc.
1735 K Street, NW
Washington, DC 20006
- (7) Investors Exchange LLC
4 World Trade Center, 44th Floor
New York, New York 10007
- (8) NASDAQ BX, Inc.
One Liberty Plaza
New York, New York 10006

- (9) NASDAQ PHLX LLC
1900 Market Street
Philadelphia, Pennsylvania 19103
- (10) The Nasdaq Stock Market LLC
1 Liberty Plaza
165 Broadway
New York, NY 10006
- (11) NYSE National, Inc.
11 Wall Street
New York, NY 10005
- (12) New York Stock Exchange LLC
11 Wall Street
New York, New York 10005
- (13) NYSE [MKT]American LLC
11 Wall Street
New York, New York 10005
- (14) 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 the Processor has not yet disseminated Price Bands, but a Reference Price is available, a trading center may calculate and apply Price Bands based on the same Reference Price that the Processor would use for calculating such Price Bands until such trading center receives Price Bands from the Processor. If, under Section VII(B)(2), the Primary Listing Exchange notifies the Processor that it is unable to reopen an NMS Stock due to a systems or technology issue and it has not declared a Regulatory Halt, the Processor will calculate and disseminate Price Bands by applying triple the Percentage Parameters set forth in Appendix A for the first 30 seconds such Price Bands are disseminated.

(2) The Processor shall calculate a Pro-Forma Reference Price on a continuous basis during Regular Trading Hours, as specified in Section V(A)(1) of the Plan. If a Pro-Forma Reference Price has not moved by 1% or more from the Reference Price currently in effect, no

new Price Bands shall be disseminated, and the current Reference Price shall remain the effective Reference Price. When the Pro-Forma Reference Price has moved by 1% or more from the Reference Price currently in effect, the Pro-Forma Reference Price shall become the Reference Price, and the Processor shall disseminate new Price Bands based on the new Reference Price; provided, however, that each new Reference Price shall remain in effect for at least 30 seconds.

(B) Openings

(1) Except when a Regulatory Halt is in effect at the start of Regular Trading Hours, the first Reference Price for a trading day shall be the Opening Price on the Primary Listing Exchange in an NMS Stock if such Opening Price occurs less than five minutes after the start of Regular Trading Hours. During the period less than five minutes after the Opening Price, a Pro-Forma Reference Price shall be updated on a continuous basis to be the arithmetic mean price of Eligible Reported Transactions for the NMS Stock during the period following the Opening Price (including the Opening Price), and if it differs from the current Reference Price by 1% or more shall become the new Reference Price, except that a new Reference Price shall remain in effect for at least 30 seconds. Subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

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

(C) Reopenings

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

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

VI. Limit Up-Limit Down Requirements

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

(1) All trading centers in NMS Stocks, including both those operated by Participants and those operated by members of Participants, shall establish, maintain, and enforce written

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

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

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

(B) Entering and Exiting a Limit State

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

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

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

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

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

VII. Trading Pauses

(A) Declaration of Trading Pauses

(1) If trading for an NMS Stock does not exit a Limit State within 15 seconds of entry

during Regular Trading Hours, then the Primary Listing Exchange shall declare a Trading Pause for such NMS Stock and shall notify the Processor.

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

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

(B) Reopening of Trading During Regular Trading Hours

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

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

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

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

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

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

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

VIII. Implementation

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

The Plan shall be implemented on a pilot basis set to end on April 16, 2018.

IX. Withdrawal from Plan

If a Participant obtains SEC approval to withdraw from the Plan, such Participant may

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

X. Counterparts and Signatures

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

IN WITNESS THEREOF, this Plan has been executed as of the ___ day of *August* 2017[February 2017] by each of the parties hereto.

BATS BZX EXCHANGE, INC.

BY: _____

BATS EDGA EXCHANGE, INC.

BY: _____

CHICAGO STOCK EXCHANGE, INC.

BY: _____

INVESTORS EXCHANGE LLC

BY: _____

NASDAQ PHLX LLC

BY: _____

NYSE NATIONAL, INC.

BY: _____

NYSE [MKT]*American* LLC

BY: _____

BATS BYX EXCHANGE, INC.

BY: _____

BATS EDGX EXCHANGE, INC.

BY: _____

FINANCIAL INDUSTRY
REGULATORY AUTHORITY, INC.

BY: _____

NASDAQ BX, Inc.

BY: _____

THE NASDAQ STOCK MARKET LLC

BY: _____

NEW YORK STOCK EXCHANGE LLC

BY: _____

NYSE ARCA, INC.

BY: _____

Appendix A – Percentage Parameters

I. Tier 1 NMS Stocks

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

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

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

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

(5) The Reference Price used for determining which Percentage Parameter shall be

applicable during a trading day shall be based on the closing price of the NMS Stock on the Primary Listing Exchange on the previous trading day, or if no closing price exists, the last sale on the Primary Listing Exchange reported by the Processor.

II. Tier 2 NMS Stocks

- (1) Tier 2 NMS Stocks shall include all NMS Stocks other than those in Tier 1, provided, however, that all rights and warrants are excluded from the Plan.
- (2) The Percentage Parameters for Tier 2 NMS Stocks with a Reference Price more than \$3.00 shall be 10%.
- (3) The Percentage Parameters for Tier 2 NMS Stocks with a Reference Price equal to \$0.75 and up to and including \$3.00 shall be 20%.
- (4) The Percentage Parameters for Tier 2 NMS Stocks with a Reference Price less than \$0.75 shall be the lesser of (a) \$0.15 or (b) 75%.
- (5) Notwithstanding the foregoing, the Percentage Parameters for a Tier 2 NMS Stock that is a leveraged ETP shall be the applicable Percentage Parameter set forth in clauses (2), (3), or (4) above, multiplied by the leverage ratio of such product.
- (6) The Reference Price used for determining which Percentage Parameter shall be applicable during a trading day shall be based on the closing price of the NMS Stock on the Primary Listing Exchange on the previous trading day, or if no closing price exists, the last sale on the Primary Listing Exchange reported by the Processor.

Appendix A – Schedule 1
(as of January 3, 2017)

Ticker	ETP Name	Exchange
SPY	SPDR S&P500 ETF Trust	NYSE Arca
IWM	iShares Russell 2000 ETF	NYSE Arca
QQQ	Powershares QQQ Trust Series 1	NASDAQ
EEM	iShares MSCI Emerging Markets ETF	NYSE Arca
GDX	VanEck Vectors Gold Miners ETF	NYSE Arca
XLF	Financial Select Sector SPDR Fund	NYSE Arca
GLD	SPDR Gold Shares	NYSE Arca
TLT	iShares 20+ Year Treasury Bond ETF	NASDAQ
VXX	iPATH S&P 500 VIX Short-Term Futures ETN	NYSE Arca
EFA	iShares MSCI EAFE ETF	NYSE Arca
XLE	Energy Select Sector SPDR Fund	NYSE Arca
HYG	iShares iBoxx \$ High Yield Corporate Bond ETF	NYSE Arca
XIV	VelocityShares Daily Inverse VIX Short Term ETN	NASDAQ
IVV	iShares Core S&P 500 ETF	NYSE Arca
XLU	Utilities Select Sector SPDR Fund	NYSE Arca
GDXJ	VanEck Vectors Junior Gold Miners ETF	NYSE Arca
XLP	Consumer Staples Select Sector SPDR Fund	NYSE Arca
FXI	iShares China Large-Cap ETF	NYSE Arca
EWZ	iShares MSCI Brazil Capped ETF	NYSE Arca
XLV	Health Care Select Sector SPDR Fund	NYSE Arca
IYR	iShares U.S. Real Estate ETF	NYSE Arca
LQD	iShares iBoxx \$ Investment Grade Corporate Bond ETF	NYSE Arca
XLI	Industrial Select Sector SPDR Fund	NYSE Arca
DIA	SPDR Dow Jones Industrial Average ETF Trust	NYSE Arca
XOP	SPDR S&P Oil & Gas Exploration & Production ETF	NYSE Arca
VWO	Vanguard FTSE Emerging Markets ETF	NYSE Arca
IBB	iShares Nasdaq Biotechnology ETF	NASDAQ
XLK	Technology Select Sector SPDR Fund	NYSE Arca
XLY	Consumer Discretionary Select Sector SPDR Fund	NYSE Arca
VOO	Vanguard S&P 500 ETF	NYSE Arca
USO	United States Oil Fund LP	NYSE Arca
JNK	SPDR Bloomberg Barclays High Yield Bond ETF	NYSE Arca
XBI	SPDR S&P Biotech ETF	NYSE Arca
MDY	SPDR S&P MidCap 400 ETF Trust	NYSE Arca
VNQ	Vanguard REIT ETF	NYSE Arca
EWJ	iShares MSCI Japan ETF	NYSE Arca

Ticker	ETP Name	Exchange
SVXY	ProShares Short VIX Short-Term Futures ETF	NYSE Arca
AGG	iShares Core U.S. Aggregate Bond ETF	NYSE Arca
IEMG	iShares Core MSCI Emerging Markets ETF	NYSE Arca
KRE	SPDR S&P Regional Banking ETF	NYSE Arca
EMB	iShares JP Morgan USD Emerging Markets Bond ETF	NYSE Arca
IWD	iShares Russell 1000 Value ETF	NYSE Arca
VEA	Vanguard FTSE Developed Markets ETF	NYSE Arca
VTI	Vanguard Total Stock Market ETF	NYSE Arca
DXJ	WisdomTree Japan Hedged Equity Fund	NYSE Arca
XLB	Materials Select Sector SPDR Fund	NYSE Arca
EWG	iShares MSCI Mexico Capped ETF	NYSE Arca
IEF	iShares 7-10 Year Treasury Bond ETF	NYSE Arca
IJH	iShares Core S&P Mid-Cap ETF	NYSE Arca
XRT	SPDR S&P Retail ETF	NYSE Arca
SLV	iShares Silver Trust	NYSE Arca
IWF	iShares Russell 1000 Growth ETF	NYSE Arca
VGK	Vanguard FTSE Europe ETF	NYSE Arca
SMH	VanEck Vectors Semiconductor ETF	NYSE Arca
IWN	iShares Russell 2000 Value ETF	NYSE Arca
BND	Vanguard Total Bond Market ETF	NYSE Arca
RSX	VanEck Vectors Russia ETF	NYSE Arca
USMV	iShares MSCI USA Minimum Volatility ETF	NYSE Arca
TIP	iShares TIPS Bond ETF	NYSE Arca
EZU	iShares MSCI Eurozone ETF	Bats
IJR	iShares Core S&P Small-Cap ETF	NYSE Arca
SHY	iShares 1-3 Year Treasury Bond ETF	NYSE Arca
OIH	VanEck Vectors Oil Service ETF	NYSE Arca
EWY	iShares MSCI South Korea Capped ETF	NYSE Arca
PFF	iShares US Preferred Stock ETF	NYSE Arca
XME	SPDR S&P Metals & Mining ETF	NYSE Arca
IEFA	iShares Core MSCI EAFE ETF	NYSE Arca
IWB	iShares Russell 1000 ETF	NYSE Arca
KBE	SPDR S&P Bank ETF	NYSE Arca
BSV	Vanguard Short-Term Bond ETF	NYSE Arca
IWO	iShares Russell 2000 Growth ETF	NYSE Arca
HEDJ	WisdomTree Europe Hedged Equity Fund	NYSE Arca
EWT	iShares MSCI Taiwan ETF	NYSE Arca
SH	ProShares Short S&P500	NYSE Arca
ACWI	iShares MSCI ACWI ETF	NASDAQ
VCSH	Vanguard Short-Term Corporate Bond ETF	NASDAQ

Ticker	ETP Name	Exchange
SPLV	PowerShares S&P 500 Low Volatility Portfolio	NYSE Arca
EWG	iShares MSCI Germany ETF	NYSE Arca
VTV	Vanguard Value ETF	NYSE Arca
AMLP	Alerian MLP ETF	NYSE Arca
DBEF	Deutsche X-trackers MSCI EAFE Hedged Equity ETF	NYSE Arca
IAU	iShares Gold Trust	NYSE Arca
UNG	United States Natural Gas Fund LP	NYSE Arca
DVY	iShares Select Dividend ETF	NYSE Arca
BKLN	PowerShares Senior Loan Portfolio	NYSE Arca
VB	Vanguard Small-Cap ETF	NYSE Arca
VEU	Vanguard FTSE All-World ex-US ETF	NYSE Arca
IVE	iShares S&P 500 Value ETF	NYSE Arca
RSP	Guggenheim S&P 500 Equal Weight ETF	NYSE Arca
SHV	iShares Short Treasury Bond ETF	NYSE Arca
VIXY	ProShares VIX Short-Term Futures ETF	NYSE Arca
XHB	SPDR S&P Homebuilders ETF	NYSE Arca
IVW	iShares S&P 500 Growth ETF	NYSE Arca
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	NASDAQ
EPI	WisdomTree India Earnings Fund	NYSE Arca
EFAV	iShares MSCI EAFE Minimum Volatility ETF	NYSE Arca
ITB	iShares U.S. Home Construction ETF	NYSE Arca
SDY	SPDR S&P Dividend ETF	NYSE Arca
MUB	iShares National Muni Bond ETF	NYSE Arca
VUG	Vanguard Growth ETF	NYSE Arca
VYM	Vanguard High Dividend Yield ETF	NYSE Arca
INDA	iShares MSCI India ETF	Bats
BIV	Vanguard Intermediate-Term Bond ETF	NYSE Arca
FEZ	SPDR EURO STOXX 50 ETF	NYSE Arca
AAXJ	iShares MSCI All Country Asia ex Japan ETF	NASDAQ
VIG	Vanguard Dividend Appreciation ETF	NYSE Arca
MCHI	iShares MSCI China ETF	NASDAQ
AMJ	JPMorgan Alerian MLP Index ETN	NYSE Arca
EWK	iShares MSCI Hong Kong ETF	NYSE Arca
EWU	iShares MSCI United Kingdom ETF	NYSE Arca
SOXX	iShares PHLX Semiconductor ETF	NASDAQ
FXE	CurrencyShares Euro Trust	NYSE Arca
MBB	iShares MBS ETF	NYSE Arca
CIU	iShares Intermediate Credit Bond ETF	NYSE Arca
VO	Vanguard Mid-Cap ETF	NYSE Arca
EWC	iShares MSCI Canada ETF	NYSE Arca

Ticker	ETP Name	Exchange
IEI	iShares 3-7 Year Treasury Bond ETF	NYSE Arca
CSJ	iShares 1-3 Year Credit Bond ETF	NYSE Arca
OEF	iShares S&P 100 ETF	NYSE Arca
ILF	iShares Latin America 40 ETF	NYSE Arca
IYE	iShares U.S. Energy ETF	NYSE Arca
VGT	Vanguard Information Technology ETF	NYSE Arca
XLRE	Real Estate Select Sector SPDR Fund	NYSE Arca
IYT	iShares Transportation Average ETF	NYSE Arca
PCY	PowerShares Emerging Markets Sovereign Debt Portfolio	NYSE Arca
IWS	iShares Russell Mid-Cap Value ETF	NYSE Arca
EEMV	iShares MSCI Emerging Markets Minimum Volatility ETF/Dup	NYSE Arca
IYF	iShares US Financials ETF	NYSE Arca
VBR	Vanguard Small-Cap Value ETF	NYSE Arca
UUP	PowerShares DB US Dollar Index Bullish Fund	NYSE Arca
BNDX	Vanguard Total International Bond ETF	NASDAQ
SJNK	SPDR Bloomberg Barclays Short Term High Yield Bond ETF	NYSE Arca
EWA	iShares MSCI Australia ETF	NYSE Arca
MINT	PIMCO Enhanced Short Maturity Active Exchange-Traded Fund	NYSE Arca
HDV	iShares High Dividend ETF	NYSE Arca
SCHF	Schwab International Equity ETF	NYSE Arca
BIL	SPDR Bloomberg Barclays 1-3 Month T-Bill	NYSE Arca
CWB	SPDR Bloomberg Barclays Convertible Securities ETF	NYSE Arca
FDN	First Trust Dow Jones Internet Index Fund	NYSE Arca
PGX	PowerShares Preferred Portfolio	NYSE Arca
VFH	Vanguard Financials ETF	NYSE Arca
IWR	iShares Russell Mid-Cap ETF	NYSE Arca
HEFA	iShares Currency Hedged MSCI EAFE ETF	NYSE Arca
VT	Vanguard Total World Stock ETF	NYSE Arca
SCZ	iShares MSCI EAFE Small-Cap ETF	NASDAQ
VXF	Vanguard Extended Market ETF	NYSE Arca
HYS	PIMCO 0-5 Year High Yield Corporate Bond Index Exchange-Traded Fund	NYSE Arca
FLOT	iShares Floating Rate Bond ETF	NYSE Arca
DBC	PowerShares DB Commodity Index Tracking Fund	NYSE Arca
ICF	iShares Cohen & Steers REIT ETF	NYSE Arca
ITOT	iShares Core S&P Total US Stock Market ETF	NYSE Arca
RWM	ProShares Short Russell2000	NYSE Arca
SCHB	Schwab US Broad Market ETF	NYSE Arca
VHT	Vanguard Health Care ETF	NYSE Arca
RWR	SPDR Dow Jones REIT ETF	NYSE Arca

Ticker	ETP Name	Exchange
IWV	iShares Russell 3000 ETF	NYSE Arca
IYW	iShares US Technology ETF	NYSE Arca
VXUS	Vanguard Total International Stock ETF	NASDAQ
EWP	iShares MSCI Spain Capped ETF	NYSE Arca
DBEU	Deutsche X-trackers MSCI Europe Hedged Equity ETF	NYSE Arca
EZA	iShares MSCI South Africa ETF	NYSE Arca
DBJP	Deutsche X-trackers MSCI Japan Hedged Equity ETF	NYSE Arca
SCHX	Schwab US Large-Cap ETF	NYSE Arca
IJJ	iShares S&P Mid-Cap 400 Value ETF	NYSE Arca
ACWX	iShares MSCI ACWI ex US ETF	NASDAQ
RWX	SPDR Dow Jones International Real Estate ETF	NYSE Arca
IEV	iShares Europe ETF	NYSE Arca
VBK	Vanguard Small-Cap Growth ETF	NYSE Arca
VOE	Vanguard Mid-Cap Value ETF	NYSE Arca
IWP	iShares Russell Mid-Cap Growth ETF	NYSE Arca
PSQ	ProShares Short QQQ	NYSE Arca
SCHD	Schwab US Dividend Equity ETF	NYSE Arca
QUAL	iShares MSCI USA Quality Factor ETF	NYSE Arca
SPHD	PowerShares S&P 500 High Dividend Low Volatility Portfolio	NYSE Arca
FXG	First Trust Consumer Staples AlphaDEX Fund	NYSE Arca
BLV	Vanguard Long-Term Bond ETF	NYSE Arca
IJS	iShares S&P Small-Cap 600 Value ETF	NYSE Arca
VPU	Vanguard Utilities ETF	NYSE Arca
VDE	Vanguard Energy ETF	NYSE Arca
EPP	iShares MSCI Pacific ex Japan ETF	NYSE Arca
FXD	First Trust Consumer Discretionary AlphaDEX Fund	NYSE Arca
IGV	iShares North American Tech-Software ETF	NYSE Arca
NEAR	iShares Short Maturity Bond ETF	Bats
HEWJ	iShares Currency Hedged MSCI Japan ETF	NYSE Arca
EWI	iShares MSCI Italy Capped ETF	NYSE Arca
EIDO	iShares MSCI Indonesia ETF	NYSE Arca
HYD	VanEck Vectors High Yield Municipal Index ETF	NYSE Arca
SCPB	SPDR Bloomberg Barclays Short Term Corporate Bond ETF	NYSE Arca
SCHH	Schwab U.S. REIT ETF	NYSE Arca
EWL	iShares MSCI Switzerland Capped ETF	NYSE Arca
IJK	iShares S&P Mid-Cap 400 Growth ETF	NYSE Arca
EFV	iShares MSCI EAFE Value ETF	NYSE Arca
IJT	iShares S&P Small-Cap 600 Growth ETF	NYSE Arca
EMLC	VanEck Vectors J.P. Morgan EM Local Currency Bond ETF	NYSE Arca
SCHA	Schwab US Small-Cap ETF	NYSE Arca

Ticker	ETP Name	Exchange
IDU	iShares US Utilities ETF	NYSE Arca
HEZU	iShares Currency Hedged MSCI Eurozone ETF	NYSE Arca
SHM	SPDR Nuveen Barclays Short Term Municipal Bond ETF	NYSE Arca
IYH	iShares U.S. Healthcare ETF	NYSE Arca
FV	First Trust Dorsey Wright Focus 5 ETF	NASDAQ
IHI	iShares U.S. Medical Devices ETF	NYSE Arca
ITA	iShares US Aerospace & Defense ETF	NYSE Arca
GOVT	iShares Core US Treasury Bond ETF	NYSE Arca
GUNR	FlexShares Global Upstream Natural Resources Index Fund	NYSE Arca
VV	Vanguard Large-Cap ETF	NYSE Arca
ASHR	Deutsche X-trackers Harvest CSI 300 China A-Shares ETF	NYSE Arca
IYZ	iShares US Telecommunications ETF	NYSE Arca
BWX	SPDR Bloomberg Barclays International Treasury Bond ETF	NYSE Arca
TFI	SPDR Nuveen Barclays Municipal Bond ETF	NYSE Arca
SCHZ	Schwab U.S. Aggregate Bond ETF	NYSE Arca
VCLT	Vanguard Long-Term Corporate Bond ETF	NASDAQ
VNQI	Vanguard Global ex-U.S. Real Estate ETF	NASDAQ
KBWB	PowerShares KBW Bank Portfolio	NASDAQ
IDV	iShares International Select Dividend ETF	NYSE Arca
IXUS	iShares Core MSCI Total International Stock ETF	NASDAQ
ACWV	iShares MSCI All Country World Minimum Volatility ETF	NYSE Arca
FXV	CurrencyShares Japanese Yen Trust	NYSE Arca
NOBL	ProShares S&P 500 Dividend Aristocrats ETF	Bats
VPL	Vanguard FTSE Pacific ETF	NYSE Arca
THD	iShares MSCI Thailand Capped ETF	NYSE Arca
TOTL	SPDR Doubleline Total Return Tactical ETF	NYSE Arca
VDC	Vanguard Consumer Staples ETF	NYSE Arca
VOX	Vanguard Telecommunication Services ETF	NYSE Arca
VTIP	Vanguard Short-Term Inflation-Protected Securities ETF	NASDAQ
MTUM	iShares MSCI USA Momentum Factor ETF	NYSE Arca
QTEC	First Trust NASDAQ-100 Technology Index Fund	NASDAQ
EWM	iShares MSCI Malaysia ETF	NYSE Arca
FXN	First Trust Energy AlphaDEX Fund	NYSE Arca
OIL	iPath Goldman Sachs Crude Oil Total Return Index ETN	NYSE Arca
REM	iShares Mortgage Real Estate Capped ETF	NYSE Arca
TBF	ProShares Short 20+ Year Treasury	NYSE Arca
FCG	First Trust Natural Gas ETF	NYSE Arca
FXR	First Trust Industrials/Producer Durables AlphaDEX Fund	NYSE Arca
PIN	PowerShares India Portfolio	NYSE Arca
VIS	Vanguard Industrials ETF	NYSE Arca

Ticker	ETP Name	Exchange
TUR	iShares MSCI Turkey ETF	NYSE Arca
VMBS	Vanguard Mortgage-Backed Securities ETF	NASDAQ
FVD	First Trust Value Line Dividend Index Fund	NYSE Arca
FXB	CurrencyShares British Pound Sterling Trust	NYSE Arca
PHB	PowerShares Fundamental High Yield Corporate Bond Portfolio	NYSE Arca
DOG	ProShares Short Dow30	NYSE Arca
EFG	iShares MSCI EAFE Growth ETF	NYSE Arca
EWQ	iShares MSCI France ETF	NYSE Arca
IYJ	iShares U.S. Industrials ETF	NYSE Arca
IYG	iShares U.S. Financial Services ETF	NYSE Arca
BOND	PIMCO Total Return Active Exchange-Traded Fund	NYSE Arca
HEWG	iShares Currency Hedged MSCI Germany ETF	NYSE Arca
SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	NYSE Arca
VLUE	iShares MSCI USA Value Factor ETF	NYSE Arca
SCHE	Schwab Emerging Markets Equity ETF	NYSE Arca
ECH	iShares MSCI Chile Capped ETF	NYSE Arca
FXU	First Trust Utilities AlphaDEX Fund	NYSE Arca
RWO	SPDR Dow Jones Global Real Estate ETF	NYSE Arca
PRF	Powershares FTSE RAFI US 1000 Portfolio	NYSE Arca
VGLT	Vanguard Long-Term Government Bond ETF	NASDAQ
VOT	Vanguard Mid-Cap Growth ETF	NYSE Arca
SCHM	Schwab U.S. Mid-Cap ETF	NYSE Arca
EUFN	iShares MSCI Europe Financials ETF	NASDAQ
EWS	iShares MSCI Singapore ETF	NYSE Arca
GVI	iShares Intermediate Government/Credit Bond ETF	NYSE Arca
SCHV	Schwab U.S. Large-Cap Value ETF	NYSE Arca
SCHP	Schwab US TIPs ETF	NYSE Arca
DEM	WisdomTree Emerging Markets High Dividend Fund	NYSE Arca
IYM	iShares U.S. Basic Materials ETF	NYSE Arca
DBA	PowerShares DB Agriculture Fund	NYSE Arca
SCHG	Schwab U.S. Large-Cap Growth ETF	NYSE Arca
IGOV	iShares International Treasury Bond ETF	NASDAQ
IGF	iShares Global Infrastructure ETF	NASDAQ
TLH	iShares 10-20 Year Treasury Bond ETF	NYSE Arca
EPHE	iShares MSCI Philippines ETF	NYSE Arca
SCHO	Schwab Short-Term U.S. Treasury ETF	NYSE Arca
EUM	ProShares Short MSCI Emerging Markets	NYSE Arca
PGF	PowerShares Financial Preferred Portfolio	NYSE Arca
IHF	iShares U.S. Healthcare Providers ETF	NYSE Arca
VSS	Vanguard FTSE All World ex-US Small-Cap ETF	NYSE Arca

Ticker	ETP Name	Exchange
KIE	SPDR S&P Insurance ETF	NYSE Arca
SPHB	PowerShares S&P 500 High Beta Port ETF	NYSE Arca
SDOG	ALPS Sector Dividend Dogs ETF	NYSE Arca
VAW	Vanguard Materials ETF	NYSE Arca
FPE	First Trust Preferred Securities and Income ETF	NYSE Arca
ITR	SPDR Bloomberg Barclays Intermediate Term Corporate Bond ETF	NYSE Arca
VCR	Vanguard Consumer Discretionary ETF	NYSE Arca
IGE	iShares North American Natural Resources ETF	NYSE Arca
SIL	Global X Silver Miners ETF	NYSE Arca
EDV	Vanguard Extended Duration Treasury ETF	NYSE Arca
DLN	WisdomTree LargeCap Dividend Fund	NYSE Arca
DON	WisdomTree MidCap Dividend Fund	NYSE Arca
MLPI	ETRACS Alerian MLP Infrastructure Index ETN	NYSE Arca
CLY	iShares 10+ Year Credit Bond ETF	NYSE Arca
IUSG	iShares Core US Growth ETF	NYSE Arca
ITM	VanEck Vectors AMT-Free Intermediate Municipal Index ETF	NYSE Arca
RPG	Guggenheim S&P 500 Pure Growth ETF	NYSE Arca
VGIT	Vanguard Intermediate-Term Government Bond ETF	NASDAQ
CRED	iShares Core US Credit Bond ETF	NYSE Arca
XES	SPDR S&P Oil & Gas Equipment & Services ETF	NYSE Arca
PHYS	Sprott Physical Gold Trust	NYSE Arca
TLO	SPDR Bloomberg Barclays Long Term Treasury ETF	NYSE Arca
BBH	VanEck Vectors Biotech ETF	NASDAQ
RYT	Guggenheim S&P 500 Equal Weight Technology ETF	NYSE Arca
FXO	First Trust Financial AlphaDEX Fund	NYSE Arca
CWI	SPDR MSCI ACWI ex-US ETF	NYSE Arca
FXH	First Trust Health Care AlphaDEX Fund	NYSE Arca
FDL	First Trust Morningstar Dividend Leaders Index	NYSE Arca
PJP	Powershares Dynamic Pharmaceuticals Portfolio	NYSE Arca
PZA	PowerShares National AMT-Free Municipal Bond Portfolio	NYSE Arca
RPV	Guggenheim S&P 500 Pure Value ETF	NYSE Arca
GSLC	Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF	NYSE Arca
SUB	iShares Short-Term National Muni Bond ETF	NYSE Arca
IXC	iShares Global Energy ETF	NYSE Arca
IAT	iShares US Regional Banks ETF	NYSE Arca
GSY	Guggenheim Enhanced Short Duration ETF	NYSE Arca
ERUS	iShares MSCI Russia Capped ETF	NYSE Arca
IXJ	iShares Global Healthcare ETF	NYSE Arca
DES	WisdomTree SmallCap Dividend Fund	NYSE Arca
DJP	iPath Bloomberg Commodity Index Total Return ETN	NYSE Arca

Ticker	ETP Name	Exchange
FTSM	First Trust Enhanced Short Maturity ETF	NASDAQ
XPH	SPDR S&P Pharmaceuticals ETF	NYSE Arca
VTEB	Vanguard Tax-Exempt Bond Index ETF	NYSE Arca
VWOB	Vanguard Emerging Markets Government Bond ETF	NASDAQ
IUSV	iShares Core US Value ETF	NYSE Arca
PDP	PowerShares DWA Momentum Portfolio	NASDAQ
MGK	Vanguard Mega Cap Growth ETF	NYSE Arca
HYLS	First Trust Exchange-Traded Fund IV First Trust Tactical High Yield ETF	NASDAQ
FEX	First Trust Large Cap Core AlphaDEX Fund	NASDAQ
HYMB	SPDR Nuveen S&P High Yield Municipal Bond ETF	NYSE Arca
DGRO	iShares Core Dividend Growth ETF	NYSE Arca
VGSH	Vanguard Short-Term Government Bond ETF	NASDAQ
RHS	Guggenheim S&P 500 Equal Weight Consumer Staples ETF	NYSE Arca
LEMB	iShares Emerging Markets Local Currency Bond ETF	NYSE Arca
FBT	First Trust NYSE Arca Biotechnology Index Fund	NYSE Arca
IYK	iShares US Consumer Goods ETF	NYSE Arca
FNDX	Schwab Fundamental U.S. Large Company Index	NYSE Arca
BNDS	SPDR Bloomberg Barclays Aggregate Bond ETF	NYSE Arca
PEY	PowerShares High Yield Equity Dividend Achievers Portfolio	NASDAQ
VRP	PowerShares Variable Rate Preferred Portfolio	NYSE Arca
SPHQ	PowerShares S&P 500 Quality Portfolio	NYSE Arca
GNR	SPDR S&P Global Natural Resources ETF	NYSE Arca
ANGL	VanEck Vectors Fallen Angel High Yield Bond ETF	NYSE Arca
EMLP	First Trust North American Energy Infrastructure Fund	NYSE Arca
VTWO	Vanguard Russell 2000	NASDAQ
SRLN	SPDR Blackstone / GSO Senior Loan ETF	NYSE Arca
EWD	iShares MSCI Sweden ETF	NYSE Arca
RING	iShares MSCI Global Gold Miners ETF	NYSE Arca
BAB	PowerShares Build America Bond Portfolio	NYSE Arca
XMLV	PowerShares S&P MidCap Low Volatility Portfolio	NYSE Arca
KWEB	KraneShares CSI China Internet ETF	NASDAQ
IEO	iShares U.S. Oil & Gas Exploration & Production ETF	NYSE Arca
XSLV	PowerShares S&P SmallCap Low Volatility Portfolio	NYSE Arca
IEUR	iShares Core MSCI Europe ETF	NYSE Arca
IFGL	iShares International Developed Real Estate ETF	NASDAQ
ZROZ	PIMCO 25+ Year Zero Coupon U.S. Treasury Index Exchange-Traded Fund	NYSE Arca
XSD	SPDR S&P Semiconductor ETF	NYSE Arca
DFE	WisdomTree Europe SmallCap Dividend Fund	NYSE Arca

Ticker	ETP Name	Exchange
FTSL	First Trust Senior Loan ETF	NASDAQ
FXZ	First Trust Materials AlphaDEX Fund	NYSE Arca
BLHY	Virtus Newfleet Dynamic Credit ETF	NYSE Arca
SCHR	Schwab Intermediate-Term U.S. Treasury ETF	NYSE Arca
EPOL	iShares MSCI Poland Capped ETF	NYSE Arca
CMF	iShares California Muni Bond ETF	NYSE Arca
GXC	SPDR S&P China ETF	NYSE Arca
XAR	SPDR S&P Aerospace & Defense ETF	NYSE Arca
IYC	iShares U.S. Consumer Services ETF	NYSE Arca
FNDF	Schwab Fundamental International Large Company Index	NYSE Arca
DWX	SPDR S&P International Dividend ETF	NYSE Arca
SGOL	ETFS Physical Swiss Gold Shares	NYSE Arca
EWN	iShares MSCI Netherlands ETF	NYSE Arca
PKW	PowerShares Buyback Achievers Portfolio	NASDAQ
PSLV	Sprott Physical Silver Trust	NYSE Arca
IGM	iShares North American Tech ETF	NYSE Arca
FNCL	Fidelity MSCI Financials Index ETF	NYSE Arca
PPLT	ETFS Physical Platinum Shares	NYSE Arca
ISTB	iShares Core 1-5 Year USD Bond ETF	NYSE Arca
DGRW	WisdomTree U.S. Quality Dividend Growth Fund	NASDAQ
IHE	iShares US Pharmaceuticals ETF	NYSE Arca
SLYV	SPDR S&P 600 Small Cap Value ETF	NYSE Arca
HACK	PureFunds ISE Cyber Security ETF	NYSE Arca
FNDA	Schwab Fundamental U.S. Small Company Index	NYSE Arca
CORP	PIMCO Investment Grade Corporate Bond Index Exchange-Traded Fund	NYSE Arca
BSJI	Guggenheim BulletShares 2018 High Yield Corporate Bond ETF	NYSE Arca
ECON	Columbia Emerging Markets Consumer ETF	NYSE Arca
PSK	SPDR Wells Fargo Preferred Stock ETF	NYSE Arca
GSG	iShares S&P GSCI Commodity Indexed Trust	NYSE Arca
VOOG	Vanguard S&P 500 Growth ETF	NYSE Arca
VXZ	iPATH S&P 500 VIX Mid-Term Futures ETN	NYSE Arca
ONEQ	Fidelity NASDAQ Composite Index Tracking Stock ETF	NASDAQ
SLYG	SPDR S&P 600 Small Cap Growth ETF	NYSE Arca
STIP	iShares 0-5 Year TIPS Bond ETF	NYSE Arca
PDBC	PowerShares DB Optimum Yield Diversified Commodity Strategy Portfolio	NASDAQ
FXL	First Trust Technology AlphaDEX Fund	NYSE Arca
IXN	iShares Global Tech ETF	NYSE Arca
MOO	VanEck Vectors Agribusiness ETF	NYSE Arca

Ticker	ETP Name	Exchange
EPU	iShares MSCI All Peru Capped ETF	NYSE Arca
SNLN	Highland/iBoxx Senior Loan ETF	NASDAQ
DHS	WisdomTree High Dividend Fund	NYSE Arca
AOR	iShares Core Growth Allocation ETF	NYSE Arca
QAI	IndexIQ ETF Trust - IQ Hedge Multi-Strategy Tracker ETF	NYSE Arca
PPH	VanEck Vectors Pharmaceutical ETF	NASDAQ
FTEC	Fidelity MSCI Information Technology Index ETF	NYSE Arca
DGS	WisdomTree Emerging Markets SmallCap Dividend Fund	NYSE Arca
FHLC	Fidelity MSCI Health Care Index ETF	NYSE Arca
FNDE	Schwab Fundamental Emerging Markets Large Company Index ETF	NYSE Arca
LMBS	First Trust Low Duration Opportunities ETF	NASDAQ
IPAC	iShares Core MSCI Pacific ETF	NYSE Arca
MGV	Vanguard Mega Cap Value ETF	NYSE Arca
FRI	First Trust S&P REIT Index Fund	NYSE Arca
JO	iPath Bloomberg Coffee Subindex Total Return ETN	NYSE Arca
PXH	PowerShares FTSE RAFI Emerging Markets Portfolio	NYSE Arca
WIP	SPDR Citi International Government Inflation-Protected Bond ETF	NYSE Arca
AOM	iShares Core Moderate Allocation ETF	NYSE Arca
EWK	iShares MSCI Belgium Capped ETF	NYSE Arca
VIIX	VelocityShares VIX Short Term ETN	NASDAQ
SCJ	iShares MSCI Japan Small-Cap ETF	NYSE Arca
DVYE	iShares Emerging Markets Dividend ETF	NYSE Arca
PXF	PowerShares FTSE RAFI Developed Markets ex-U.S. Portfolio	NYSE Arca
DBB	PowerShares DB Base Metals Fund	NYSE Arca
HYEM	VanEck Vectors Emerging High Yield Bond ETF	NYSE Arca
PPA	PowerShares Aerospace & Defense Portfolio	NYSE Arca
FTGC	First Trust Global Tactical Commodity Strategy Fund	NASDAQ
DLS	WisdomTree International SmallCap Dividend Fund	NYSE Arca
JHMD	John Hancock Multifactor Developed International ETF	NYSE Arca
SDIV	Global X SuperDividend ETF	NYSE Arca
PICK	iShares MSCI Global Metals & Mining Producers ETF	NYSE Arca
INDY	iShares India 50 ETF	NASDAQ
SPYG	SPDR S&P 500 Growth ETF	NYSE Arca
STPZ	PIMCO 1-5 Year U.S. TIPS Index Exchange-Traded Fund	NYSE Arca
SCHC	Schwab International Small-Cap Equity ETF	NYSE Arca
IXG	iShares Global Financials ETF	NYSE Arca
IAGG	iShares International Aggregate Bond Fund	Bats
IWC	iShares Micro-Cap ETF	NYSE Arca
DBO	PowerShares DB Oil Fund	NYSE Arca

Ticker	ETP Name	Exchange
FXC	CurrencyShares Canadian Dollar Trust	NYSE Arca
USCI	United States Commodity Index Fund	NYSE Arca
PSCT	PowerShares S&P SmallCap Information Technology Portfolio	NASDAQ
ITE	SPDR Bloomberg Barclays Intermediate Term Treasury ETF	NYSE Arca
DBP	PowerShares DB Precious Metals Fund	NYSE Arca
FENY	Fidelity MSCI Energy Index ETF	NYSE Arca
ELD	WisdomTree Emerging Markets Local Debt Fund	NYSE Arca
REZ	iShares Residential Real Estate Capped ETF	NYSE Arca
EWX	SPDR S&P Emerging Markets SmallCap ETF	NYSE Arca
ENZL	iShares MSCI New Zealand Capped ETF	NASDAQ
IDLV	PowerShares S&P International Developed Low Volatility Portfolio	NYSE Arca
BSJJ	Guggenheim BulletShares 2019 High Yield Corporate Bond ETF	NYSE Arca
SILJ	PureFunds ISE Junior Silver Small Cap Miners/Explorers ETF	NYSE Arca
VONG	Vanguard Russell 1000 Growth ETF	NASDAQ
JPIN	JPMorgan Diversified Return International Equity ETF	NYSE Arca
WBIY	WBI Power Factor™ High Dividend ETF	NYSE Arca
FTA	First Trust Large Cap Value AlphaDEX Fund	NASDAQ
GWX	SPDR S&P International Small Cap ETF	NYSE Arca
OUSA	O'Shares FTSE US Quality Dividend ETF	NYSE Arca
FM	iShares MSCI Frontier 100 ETF	NYSE Arca
SJB	ProShares Short High Yield	NYSE Arca
RYH	Guggenheim S&P 500 Equal Weight Healthcare ETF	NYSE Arca
VONV	Vanguard Russell 1000 Value	NASDAQ
PFXF	VanEck Vectors Preferred Securities ex Financials ETF	NYSE Arca
QDF	FlexShares Quality Dividend Index Fund	NYSE Arca
RYF	Guggenheim S&P 500 Equal Weight Financials ETF	NYSE Arca
RYE	Guggenheim S&P 500 Equal Weight Energy ETF	NYSE Arca
PID	PowerShares International Dividend Achievers Portfolio	NASDAQ
FUTY	Fidelity MSCI Utilities Index ETF	NYSE Arca
HDGE	AdvisorShares Ranger Equity Bear ETF	NYSE Arca
MOAT	VanEck Vectors Morningstar Wide Moat ETF	NYSE Arca
PWV	PowerShares Dynamic Large Cap Value Portfolio	NYSE Arca
BSCI	Guggenheim BulletShares 2018 Corporate Bond ETF	NYSE Arca
DFJ	WisdomTree Japan SmallCap Dividend Fund	NYSE Arca
TDTT	FlexShares iBoxx 3-Year Target Duration TIPS Index Fund	NYSE Arca
DGL	PowerShares DB Gold Fund	NYSE Arca
DBE	PowerShares DB Energy Fund	NYSE Arca
SMDV	Proshares Trust-Proshares Russell 2000 Dividend Growers ETF	Bats
IFV	First Trust Dorsey Wright International Focus 5 ETF	NASDAQ
MDIV	First Trust Multi-Asset Diversified Income Index Fund	NASDAQ

Ticker	ETP Name	Exchange
PRFZ	PowerShares FTSE RAFI US 1500 Small-Mid Portfolio	NASDAQ
FLRN	SPDR Bloomberg Barclays Investment Grade Floating Rate ETF	NYSE Arca
EFZ	ProShares Short MSCI EAFE	NYSE Arca
BSCH	Guggenheim BulletShares 2017 Corporate Bond ETF	NYSE Arca
IGN	iShares North American Tech-Multimedia Networking ETF	NYSE Arca
FYX	First Trust Small Cap Core AlphaDEX Fund	NASDAQ
IYY	iShares Dow Jones U.S. ETF	NYSE Arca
VNM	VanEck Vectors Vietnam ETF	NYSE Arca
DWM	WisdomTree International Equity Fund	NYSE Arca
BCK	Guggenheim BulletShares 2020 Corporate Bond ETF	NYSE Arca
EBND	SPDR Bloomberg Barclays Emerging Markets Local Bond ETF	NYSE Arca
DSI	iShares MSCI KLD 400 Social ETF	NYSE Arca
FREL	Fidelity MSCI Real Estate Index ETF	NYSE Arca
IOO	iShares Global 100 ETF	NYSE Arca
KBWY	PowerShares KBW Premium Yield Equity REIT Portfolio	NASDAQ
IHDG	WisdomTree International Hedged Quality Dividend Growth Fund	NYSE Arca
FTC	First Trust Large Cap Growth AlphaDEX Fund	NASDAQ
IPE	SPDR Bloomberg Barclays TIPS ETF	NYSE Arca
GWL	SPDR S&P World ex-US ETF	NYSE Arca
SKYY	First Trust ISE Cloud Computing Index Fund	NASDAQ
XTN	SPDR S&P Transportation ETF	NYSE Arca
SLX	VanEck Vectors Steel Index Fund	NYSE Arca
REGL	Proshares S&P Midcap 400 Dividend Aristocrats ETF	Bats
FNX	First Trust Mid Cap Core AlphaDEX Fund	NASDAQ
SGDM	Sprott Gold Miners ETF	NYSE Arca
CMBS	iShares CMBS ETF	NYSE Arca
PKB	PowerShares Dynamic Building & Construction Portfolio	NYSE Arca
QABA	First Trust NASDAQ ABA Community Bank Index Fund	NASDAQ
MXI	iShares Global Materials ETF	NYSE Arca
TDIV	First Trust NASDAQ Technology Dividend Index Fund	NASDAQ
FDIS	Fidelity MSCI Consumer Discretionary Index ETF	NYSE Arca
AOA	iShares Core Aggressive Allocation ETF	NYSE Arca
FPX	First Trust US IPO Index Fund	NYSE Arca
FNDC	Schwab Fundamental International Small Cap Company index	NYSE Arca
BSCJ	Guggenheim BulletShares 2019 Corporate Bond ETF	NYSE Arca
AIA	iShares Asia 50 ETF	NASDAQ
GLTR	ETFS Physical Precious Metal Basket Shares	NYSE Arca
VONE	Vanguard Russell 1000	NASDAQ
FSTA	Fidelity MSCI Consumer Staples Index ETF	NYSE Arca
BSCL	Guggenheim BulletShares 2021 Corporate Bond ETF	NYSE Arca

Ticker	ETP Name	Exchange
FDT	First Trust Developed Markets ex-US AlphaDEX Fund	NASDAQ
COMT	iShares Commodities Select Strategy ETF	NASDAQ
PUI	PowerShares DWA Utilities Momentum Portfolio	NASDAQ
PSL	PowerShares DWA Consumer Staples Momentum Portfolio	NASDAQ
MGC	Vanguard Mega Cap ETF	NYSE Arca
JKG	iShares Morningstar Mid-Cap ETF	NYSE Arca
BSJH	Guggenheim BulletShares 2017 High Yield Corporate Bond ETF	NYSE Arca
MDYG	SPDR S&P 400 Mid CapGrowth ETF	NYSE Arca
URTH	iShares MSCI World ETF	NYSE Arca
RDIV	Oppenheimer Ultra Dividend Revenue ETF	NYSE Arca
SLY	SPDR S&P 600 Small CapETF	NYSE Arca
SGG	iPath Bloomberg Sugar Subindex Total Return ETN	NYSE Arca
BSJK	Guggenheim BulletShares 2020 High Yield Corporate Bond ETF	NYSE Arca
AOK	iShares Core Conservative Allocation ETF	NYSE Arca
VIOO	Vanguard S&P Small-Cap 600 ETF	NYSE Arca
BSJG	Guggenheim BulletShares 2016 High Yield Corporate Bond ETF	NYSE Arca
PCEF	PowerShares CEF Income Composite Portfolio	NYSE Arca
RWL	Oppenheimer Large Cap Revenue ETF	NYSE Arca
PWZ	PowerShares California AMT-Free Municipal Bond Portfolio	NYSE Arca
JHML	John Hancock Multi-Factor Large Cap ETF	NYSE Arca
FLTB	Fidelity Ltd Term Bond ETF	NYSE Arca
MDYV	SPDR S&P 400 Mid Cap Value ETF	NYSE Arca
RYU	Guggenheim S&P 500 Equal Weight Utilities ETF	NYSE Arca
RGI	Guggenheim S&P 500 Equal Weight Industrials ETF	NYSE Arca
PALL	ETFS Physical Palladium Shares	NYSE Arca
XHS	SPDR S&P Health Care Services ETF	NYSE Arca
FBND	Fidelity Total Bond ETF	NYSE Arca
DVYA	iShares Asia/Pacific Dividend ETF	NYSE Arca
CORN	Teucrium Corn Fund	NYSE Arca
IVOO	Vanguard S&P Mid-Cap 400 ETF	NYSE Arca
FIDU	Fidelity MSCI Industrials Index ETF	NYSE Arca
JKE	iShares Morningstar Large-Cap Growth ETF	NYSE Arca
EMHY	iShares Emerging Markets High Yield Bond ETF	Bats
IQDF	FlexShares International Quality Dividend Index Fund	NYSE Arca
VOOV	Vanguard S&P 500 Value ETF	NYSE Arca
HEWU	iShares Currency Hedged MSCI United Kingdom ETF	NYSE Arca
FVC	First Trust Dorsey Wright Dynamic Focus 5 ETF	NASDAQ
SIVR	ETFS Physical Silver Shares	NYSE Arca
KOL	VanEck Vectors Coal ETF	NYSE Arca
MLPA	Global X MLP ETF	NYSE Arca

Ticker	ETP Name	Exchange
AGZ	iShares Agency Bond ETF	NYSE Arca
EELV	PowerShares S&P Emerging Markets Low Volatility Portfolio	NYSE Arca
TAN	Guggenheim Solar ETF	NYSE Arca
IUSB	iShares Core Total USD Bond Market ETF	NYSE Arca
IVOV	Vanguard S&P Mid-Cap 400 Value ETF	NYSE Arca
GBF	iShares Government/Credit Bond ETF	NYSE Arca
TLTD	FlexShares Morningstar Developed Markets ex-US Factor Tilt Index Fund	NYSE Arca
SLQD	iShares 0-5 Year Investment Grade Corporate Bond ETF	NASDAQ
CSM	ProShares Large Cap Core Plus	Bats
TDTF	FlexShares iBoxx 5-Year Target Duration TIPS Index Fund	NYSE Arca
SOCL	Global X Social Media Index ETF	NASDAQ
SLVP	iShares MSCI Global Silver Miners ETF	NYSE Arca
QQEW	First Trust NASDAQ-100 Equal Weighted Index Fund	NASDAQ
FJP	First Trust Japan AlphaDEX Fund	NASDAQ
FEP	First Trust Europe AlphaDEX Fund	NASDAQ
BNO	United States Brent Oil Fund LP	NYSE Arca
AMZA	InfraCap MLP ETF	NYSE Arca
MBG	SPDR Bloomberg Barclays Mortgage Backed Bond ETF	NYSE Arca
IWY	iShares Russell Top 200 Growth ETF	NYSE Arca
FLQE	Franklin LibertyQ Emerging Markets ETF	NYSE Arca
GMM	SPDR S&P Emerging Markets ETF	NYSE Arca
BSCM	Guggenheim BulletShares 2022 Corporate Bond ETF	NYSE Arca
GREK	Global X MSCI Greece ETF	NYSE Arca
FMAT	Fidelity MSCI Materials Index ETF	NYSE Arca
HEEM	iShares Currency Hedged MSCI Emerging Markets ETF	NYSE Arca
GEM	Goldman Sachs ActiveBeta Emerging Markets Equity ETF	NYSE Arca
DBKO	Deutsche X-trackers MSCI South Korea Hedged Equity ETF	NYSE Arca
ILTB	iShares Core 10+ Year USD Bond ETF	NYSE Arca
GSIE	Goldman Sachs ActiveBeta International Equity ETF	NYSE Arca
LRGF	iShares FactorSelect MSCI USA ETF	NYSE Arca
NFRA	FlexShares STOXX Global Broad Infrastructure Index Fund	NYSE Arca
AGGP	IQ Enhanced Core Plus Bond U.S. ETF	NYSE Arca
KXI	iShares Global Consumer Staples ETF	NYSE Arca
EDIV	SPDR S&P Emerging Markets Dividend ETF	NYSE Arca
IEZ	iShares U.S. Oil Equipment & Services ETF	NYSE Arca
ZIV	VelocityShares Daily Inverse VIX Medium Term ETN	NASDAQ
DTD	WisdomTree Total Dividend Fund	NYSE Arca
JJG	iPath Bloomberg Grains Subindex Total Return ETN	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 \geq \$0.75 and \leq \$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 am ET)
 - b. Regular (between 9:45 am ET and 3:35 pm ET)
 - c. Closing (after 3:35 pm 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.