SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-82888; File No. 4-631]

Joint Industry Plan; Notice of Filing of the Seventeenth Amendment to the National Market System Plan To Address Extraordinary Market Volatility by Cboe BZX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe 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.

March 15, 2018.

I. Introduction

On February 26, 2018, NYSE Group, Inc., on behalf of the following parties to the National Market System Plan to Address Extraordinary Market Volatility ("the Plan"): ¹ Choe BZX Exchange, Inc.,

Cboe BYX Exchange, Inc., Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Chicago Stock Exchange, Inc., the Financial Industry Regulatory Authority, Inc. ("FINRA"), Investors Exchange LLC, NASDAQ BX, Inc., NASDAQ PHLX LLC, The NASDAQ Stock Market LLC ("Nasdaq"), New York Stock Exchange LLC ("NYSE"), NYSE Arca, Inc., NYSE National Inc., and NYSE American LLC (collectively, the "Participants") filed with the Securities and Exchange Commission ("Commission") pursuant to Section 11A(a)(3) of the Securities Exchange Act of 1934 ("Exchange Act") 2 and Rule 608 thereunder,3 a proposal to amend the Plan ("Seventeenth Amendment").4 The proposal reflects changes unanimously approved by the Participants. The Seventeenth Amendment proposes to extend the pilot period of the Plan for one year, as discussed below. A copy of the Plan, as proposed to be amended is attached as Exhibit A hereto. The Commission is publishing this notice to solicit comments from interested persons on the Seventeenth Amendment.⁵

II. Description of the Plan

Set forth in this Section II is the statement of the purpose and summary of the Seventeenth 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 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,⁸ 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 uplimit down 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 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 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

¹On May 31, 2012, the Commission approved the Plan, as modified by Amendment No. 1. See Securities Exchange Act Release No. 67091, 77 FR 33498 (June 6, 2012) (File No. 4-631) ("Approval Order"). On February 20, 2013, the Commission noticed for immediate effectiveness the Second Amendment to the Plan. See Securities Exchange Act Release No. 68953, 78 FR 13113 (February 26, 2013). On April 3, 2013, the Commission approved the Third Amendment to the Plan. See Securities Exchange Act Release No. 69287, 78 FR 21483 (April 10, 2013). On August 27, 2013, the Commission noticed for immediate effectiveness the Fourth Amendment to the Plan. See Securities Exchange Act Release No. 70273, 78 FR 54321 (September 3, 2013). On September 26, 2013, the Commission approved the Fifth Amendment to the Plan. See Securities Exchange Act Release No. 70530, 78 FR 60937 (October 2, 2013). On January 7, 2014, the Commission noticed for immediate effectiveness the Sixth Amendment to the Plan. See Securities Exchange Act Release No. 71247, 79 FR 2204 (January 13, 2014). On April 3, 2014, the Commission approved the Seventh Amendment to the Plan. See Securities Exchange Act Release No. 71851, 79 FR 19687 (April 9, 2014), On February 19, 2015, the Commission approved the Eight Amendment to the Plan. See Securities Exchange Act Release No. 74323, 80 FR 10169 (February 25, 2015). On October 22, 2015, the Commission approved the Ninth Amendment to the Plan. See Securities Exchange Act Release No. 76244, 80 FR 66099 (October 28, 2015). On April 21, 2016, the Commission approved the Tenth Amendment to the Plan. See Securities Exchange Act Release No. 77679, 81 FR 24908 (April 27, 2016). On August 26, 2016, the Commission noticed for immediate effectiveness the Eleventh Amendment to the Plan. See Securities Exchange Act Release No. 78703, 81 FR 60397 (September 1, 2016). On January 19, 2017, the Commission approved the Twelfth Amendment to the Plan. See Securities Exchange Act Release No. 79845, 82 FR 8551 (January 26, 2017). On April 13, 2017, the Commission approved the Thirteenth Amendment to the Plan. See Securities Exchange Act Release No. 80455, 82 FR 18519 (April 19, 2017). On April 28, 2017, the Commission noticed for immediate effectiveness the Fourteenth Amendment to the Plan. See Securities Exchange

Act Release No. 80549, 82 FR 20928 (May 4, 2017). On September 26, 2017, the Commission noticed for immediate effectiveness the Fifteenth Amendment to Plan. See Securities Exchange Act Release No. 81720, 82 FR 45922 (October 2, 2017) ("Fifteenth Amendment"). On February 14, 2018, the Commission received the Sixteenth Amendment to the Plan, which was effective on filing but notice of which has not yet been published.

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 February 23, 2018. ("Transmittal Letter").

^{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

⁹ See Section VIII of the Plan.

¹⁰ See supra note 1.

¹¹ See supra note 1.

for full implementation of the Plan was moved to February 24, 2014. Pursuant to the seventh, ninth, tenth, and thirteenth amendments to the Plan, 12 the pilot period was extended from April 8, 2014 to February 20, 2015, from February 20, 2015 to April 22, 2016, from April 22, 2016 to April 17, 2017, and from April 17, 2017 to April 16, 2018.

The Participants propose to amend Section VIII(C) of the Plan to extend the pilot period through April 15, 2019, to allow the Participants time to assess the changes to the Plan as described in the twelfth and thirteenth amendments to the Plan, 13 which were implemented on November 20, 2017. In the twelfth amendment, the Participants amended the Plan to provide that a Trading Pause will continue until the Primary Listing Exchange has reopened trading using its established reopening procedures and reports a Reopening Price. The Plan was further amended to eliminate the current allowance for a trading center to resume trading in an NMS Stock following a Trading Pause if the Primary Listing Exchange has not reported a Reopening Price within ten minutes after the declaration of a Trading Pause and has not declared a Regulatory Halt. In addition, to preclude potential scenarios when trading may resume without Price Bands, the Plan was amended to provide that a trading center may not resume trading in an NMS Stock following a Trading Pause without Price Bands in such NMS Stock. To address potential scenarios in which there is no Reopening Price from the Primary Listing Exchange to use to calculate Price Bands, the Plan was amended to address when trading may resume if the Primary Listing Exchange is unable to reopen due to a systems or technology issue and how the Reference Price would be determined in such a scenario or if the Primary Listing Exchange reopens trading on a zero bid or zero offer, or both. The thirteenth amendment to the Plan further provided authority for the Processors to publish the following information provided by a primary listing exchange in connection with the reopening of trading following a Trading Pause: auction reference price; auction collars; and number of extensions to the reopening auction.

In conjunction with amending the Plan, the Primary Listing Exchanges amended their rules for automated reopenings following a Trading Pause consistent with a standardized approach agreed to by Participants that would allow for extensions of a Trading Pause if equilibrium cannot be met for a

Reopening Price within specified parameters. ¹⁴ The Primary Listing Exchanges implemented the changes to their automated reopenings on November 20, 2017.

Because both the twelfth and thirteenth amendments to the Plan and the Primary Listing Exchange's amended reopening procedures were implemented on November 20, 2017, the Participants propose to extend the current Pilot an additional year to April 15, 2019. The Participants believe that this additional time will be beneficial in that it allows "the public, the Participants, and the Commission to assess the operation of the Plan and whether the Plan should be modified prior to approval on a permanent basis." 15 In particular, this additional time will allow the public, the Participants, and the Commission time to assess the operation of the twelfth and thirteenth amendments to the Plan.

The Participants further believe that extending the Pilot another year would provide additional time for the Participants, the Commission, and the public to consider other potential modifications to the Plan that are currently under consideration. These include consideration of changes to how NMS Stocks are tiered under the Plan, and the applicable percentage parameters associated with such tiers. consideration of the elimination of double-wide Price Bands at the open and close of trading, and consideration of recommendations made by the Equity Market Structure Advisory Committee with respect to Plan operations. 16 The Participants believe that the Plan should continue to operate as a Pilot uninterrupted to provide time to consider whether to make any such further modifications to the Plan.

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. The tenth amendment to the Plan was implemented on July 18, 2016 and the twelfth and thirteenth amendments to the Plan were implemented on November 20, 2017.17 Pursuant to this proposed amendment, the Participants propose to extend the pilot period until April 15, 2019.

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

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.

¹² See supra note 1.

¹³ See supra note 1.

¹⁴ 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).

¹⁵ See Approval Order, supra note 1, 77 FR 33498 at 33508.

¹⁶ See U.S. Securities and Exchange Commission Equity Market Structure Advisory Committee, Recommendations for Rulemaking on Issues of Market Quality, dated November 29, 2016, available here: https://www.sec.gov/spotlight/emsac/emsacrecommendations-rulemaking-market-quality.pdf.

¹⁷ See Fifteenth Amendment, supra note 1.

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 22, 2018, the Operating Committee, duly constituted and chaired by Mr. Robert Books of Cboe, 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 Seventeenth 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 email 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 email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (http://www.sec.gov/rules/

sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed plan amendment that are filed with the Commission, and all written communications relating to the amendment between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the Participants' offices. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number 4-631 and should be submitted on or before April 11, 2018.

By the Commission.

Brent J. Fields,

Secretary.

Exhibit A

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

Plan To Address Extraordinary Market Volatility Submitted to the Securities and Exchange Commission Pursuant to Rule 608 of Regulation NMS Under the Securities Exchange Act of 1934

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Preamble

The Participants submit to the SEC this Plan establishing procedures to address extraordinary volatility in NMS Stocks. The procedures provide for market-wide limit uplimit 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) "MMS 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) Choe BZX Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605
- (2) Choe BYX Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605
- (3) Choe EDGA Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605
- (4) Choe EDGX Exchange, Inc., 400 South LaSalle Street, Chicago, Illinois 60605
- (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 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 Rands

(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
- (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] *April 15, 2019*

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 February 2018 by each of the parties hereto.

Cboe BZX EXCHANGE, INC. Cboe BYX EXCHANGE, INC.

BY:
BY:
Cboe EDGA EXCHANGE, INC.
Cboe EDGX EXCHANGE, INC.
BY:
BY:
CHICAGO STOCK EXCHANGE, INC.
FINANCIAL INDUSTRY REGULATORY
AUTHORITY, INC.
BY:
RY·

INVESTORS EXCHANGE LLC
NASDAQ BX, Inc.
BY:

BY: __

NASDAO PHLX LLC

THE NASDAQ STOCK MARKET LLC

BY:

BY: ______NYSE NATIONAL, INC.

NEW YORK STOCK EXCHANGE LLC

BY:

BY:

NYSE American LLC

NYSE ARCA, INC.

BY: _

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 exchangetraded 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
- (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

APPENDIX A—SCHEDULE 1 [As of January 2, 2018]

Tisles FID save		
Ticker	ETP name	Exchange
SPY	SPDR S&P 500® ETF	NYSE Arca.
QQQ	Powershares QQQ Trust Series 1	NASDAQ.
IWM	iShares Russell 2000 ETF	NYSE Arca.
EEM	iShares MSCI Emerging Markets ETF	NYSE Arca.
VXX	Financial Select Sector SPDR Fund	NYSE Arca. NYSE Arca.
EFA	iPath S&P 500 VIX Short-Term Futures ETN	NYSE Arca.
TLT	iShares 20+ Year Treasury Bond ETF	NASDAQ.
HYG	iShares iBoxx \$ High Yield Corporate Bond ETF	NYSE Arca.
GDX	VanEck Vectors Gold Miners ETF	NYSE Arca.
XIV	VelocityShares Daily Inverse VIX Short Term ETN	NASDAQ.
IVV	iShares Core S&P 500 ETF	NYSE Arca.
GLD	SPDR Gold Trust	NYSE Arca.
XLE	Energy Select Sector SPDR Fund	NYSE Arca.
LQD	iShares iBoxx \$ Investment Grade Corporate Bond ETF	NYSE Arca.
EWZ	Shares MSCI Brazil Capped ETF	NYSE Arca.
XLU	Utilities Select Sector SPDR Fund	NYSE Arca.
XLI	Industrial Select Sector SPDR Fund	NYSE Arca.
DIA	SPDR Dow Jones Industrial Average ETF Trust	
XLP	Consumer Staples Select Sector SPDR Fund	NYSE Arca.
XLK	Technology Select Sector SPDR Fund	
SVXY	ProShares Short VIX Short Term Futures	NYSE Arca.
FXIXLV	iShares China Large-Cap ETF Health Care Select Sector SPDR Fund	NYSE Arca. NYSE Arca.
IYR	iShares U.S. Real Estate ETF	
XOP	SPDR S&P Oil & Gas Exploration & Production ETF	NYSE Arca.
VWO	Vanguard FTSE Emerging Markets ETF	
VOO	Vanguard S&P 500 ETF	NYSE Arca.
IEMG	iShares Core MSCI Emerging Markets ETF	
EWJ	iShares MSCI Japan ETF	NYSE Arca.
GDXJ	VanEck Vectors Junior Gold Miners ETF	
XLY	Consumer Discretionary Select Sector SPDR Fund	NYSE Arca.
SMH	VanEck Vectors Semiconductor ETF	NYSE Arca.
JNK	SPDR Bloomberg Barclays High Yield Bond ETF	NYSE Arca.
KRE	SPDR S&P Regional Banking ETF	NYSE Arca.
MDY	SPDR S&P MidCap 400® ETF	NYSE Arca.
XBI	SPDR S&P Biotech ETF	NYSE Arca.
VEA	Vanguard FTSE Developed Markets ETF	NYSE Arca.
IBB	iShares Nasdaq Biotechnology ETF	NASDAQ.
VNQ	Vanguard REIT ETF	NYSE Arca.
AGG EZU	iShares Core U.S. Aggregate Bond ETF	NYSE Arca. Cboe BZX.
VTI	Shares MSCI Eurozone ETF	NYSE Arca.
IEFA	iShares Core MSCI EAFE ETF	Choe BZX.
XLB	Materials Select Sector SPDR Fund	NYSE Arca.
EMB	iShares JP Morgan USD Emerging Markets Bond ETF	
IWD	iShares Russell 1000 Value ETF	NYSE Arca.
USO	United States Oil Fund LP	NYSE Arca.
XRT	SPDR S&P Retail ETF	NYSE Arca.
IEF	iShares 7-10 Year Treasury Bond ETF	NASDAQ.
IJR	iShares Core S&P Small-Cap ETF	NYSE Arca.
IJH	Shares Core S&P Mid-Cap ETF	NYSE Arca.
IWF	Shares Russell 1000 Growth ETF	NYSE Arca.
VGK	Vanguard FTSE Europe ETF	NYSE Arca.
EWY	Shares MSCI South Korea Capped ETF	NYSE Arca.
BND	Vanguard Total Bond Market ETF	NYSE Arca.
OIH	VanEck Vectors Oil Services ETF	NYSE Arca.
DXJ	WisdomTree Japan Hedged Equity Fund	NYSE Arca.
AMLP	Alerian MLP ETF	NYSE Arca.
EWW	iShares MSCI Mexico Capped ETF	NYSE Arca.
IWB	Shares Russell 1000 ETF	NYSE Arca.
NTV	Vanguard Value ETF	NYSE Arca.
SLV	VanEck Vectors Russia ETF	NYSE Arca. NYSE Arca.
EWT	Shares MSCI Taiwan Capped ETF	NYSE Arca.
	iShares Gold Trust	NYSE Arca.
IAU		
VCSH	Vanguard Short-Term Corporate Bond ETF	NASDAQ.

Ticker	ETP name	Exchang
CWI	iShares MSCI ACWI ETF	NASDAQ.
VO	iShares Russell 2000 Growth ETF	NYSE Arca.
SV	Vanguard Short-Term Bond ETF	NYSE Arca.
CHI	iShares MSCI China ETF	NASDAQ.
CIT	Vanguard Intermediate-Term Corporate Bond ETF	NASDAQ.
/N	iShares Russell 2000 Value ETF	NYSE Arca.
<i>N</i> G	Shares MSCI Germany ETF	NYSE Arca.
DA	iShares MSCI India ETF	Cboe BZX.
Z	SPDR EURO STOXX 50 ETF	NYSE Arca.
BE	SPDR S&P Bank ETF	NYSE Arca.
N	iShares S&P 500 Growth ETF	NYSE Arca.
:U	Vanguard FTSE All-World ex-US ETF	NYSE Arca.
F	iShares US Preferred Stock ETF	NASDAQ.
В	Shares U.S. Home Construction ETF	Cboe BZX.
\XJ	Shares MSCI All Country Asia ex Japan ETF	NASDAQ.
VH	iShares MSCI Hong Kong ETF	NYSE Arca.
DJ	WisdomTree Europe Hedged Equity Fund	NYSE Arca.
XX	iShares PHLX Semiconductor ETF	NASDAQ.
<u> </u>	SPDR S&P Metals & Mining ETF	NYSE Arca.
=	iShares S&P 500 Value ETF	NYSE Arca.
łV	iShares Short Treasury Bond ETF	NASDAQ.
IY	iShares 1–3 Year Treasury Bond ETF	NASDAQ.
3	Vanguard Small-Cap ETF	NYSE Arca.
JG	Vanguard Growth ETF	NYSE Arca.
KLN	PowerShares Senior Loan Portfolio	NYSE Arca.
MJ	JPMorgan Alerian MLP Index ETN	NYSE Arca. NYSE Arca.
ЭT	Vanguard Information Technology ETF	NYSE Arca.
H SMV	iShares MSCI USA Minimum Volatility ETF	Cboe BZX.
VU	iShares MSCI United Kingdom ETF	NYSE Arca.
/M	Vanguard High Dividend Yield Index Fund	NYSE Arca.
HB	SPDR S&P Homebuilders ETF	NYSE Arca.
l	iShares 3–7 Year Treasury Bond ETF	NASDAQ.
(E	CurrencyShares Euro Trust	NYSE Arca.
VC	iShares MSCI Canada ETF	NYSE Arca.
NG	United States Natural Gas Fund LP	NYSE Arca.
BB	iShares MBS ETF	NASDAQ.
_RE	Real Estate Select Sector SPDR Fund	NYSE Arca.
PLV	PowerShares S&P 500® Low Volatility Portfolio	NYSE Arca.
UB	iShares National Muni Bond ETF	NYSE Arca.
Γ	Vanguard Total World Stock Index Fund	NYSE Arca.
INT	PIMČO Enhanced Short Maturity Strategy Exchange-Traded Fund	NYSE Arca.
BEF	Xtrackers MSCI EAFE Hedged Equity ETF	NYSE Arca.
O	Vanguard Mid-Cap ETF	NYSE Arca.
EF	iShares S&P 100 ETF	NYSE Arca.
G	Vanguard Dividend Appreciation ETF	NYSE Arca.
WP	iShares MSCI Spain Capped ETF	NYSE Arca.
OT	iShares Floating Rate Bond ETF	Cboe BZX.
기	WisdomTree India Earnings Fund	NYSE Arca.
/Y	iShares Select Dividend ETF	NASDAQ.
SJ	iShares 1–3 Year Credit Bond ETF	NASDAQ.
XY	ProShares VIX Short-Term Futures ETF	NYSE Arca.
VB	SPDR Bloomberg Barclays Convertible Securities ETF	NYSE Arca.
V	Vanguard Intermediate-Term Bond ETF	NYSE Arca.
CHF	Schwab International Equity ETF	NYSE Arca.
Α	Shares US Aerospace & Defense ETF	Cboe BZX.
Z	Shares MSCI EAFE Small-Cap ETF	NASDAQ.
SP	Guggenheim S&P 500 Equal Weight ETF	NYSE Arca.
NK	SPDR Bloomberg Barclays Short Term High Yield Bond ETF	NYSE Arca.
OT	Shares Core S&P Total U.S. Stock Market ETF	NYSE Arca.
IDX	Vanguard Total International Bond ETF	NASDAQ.
VA	Shares MSCI Australia ETF	NYSE Arca.
<u>T</u>	Shares Transportation Average ETF	Cboe BZX.
F	iShares Latin America 40 ETF	NYSE Arca.
H	Vanguard Financials ETF	NYSE Arca.
CY	PowerShares Emerging Markets Sovereign Debt Portfolio	NYSE Arca.
YS	PIMCO 0–5 Year High Yield Corporate Bond Index Exchange-Traded Fund	NYSE Arca.
ON	First Trust Dow Jones Internet Index Fund	NYSE Arca.
U	iShares Intermediate Credit Bond ETFiShares MSCI USA Momentum Factor ETF	NASDAQ.
ΓUM		Cboe BZX.

Ticker	ETP name	Exchange
xus	Vanguard Total International Stock ETF	NASDAQ.
DY	SPDR S&P Dividend ETF	NYSE Arca.
VR	iShares Russell Mid-Cap ETF	NYSE Arca.
MLC	VanEck Vectors Emerging Markets Local Currency Bond ETF	NYSE Arca.
EWJ	iShares Currency Hedged MSCI Japan ETF	NYSE Arca.
FAV	iShares MSCI EAFE Minimum Volatility ETF	Cboe BZX.
JFN	iShares MSCI Europe Financials ETF	NASDAQ.
/S	iShares Russell Mid-Cap Value ETF	NYSE Arca.
CHX	Schwab U.S. Large-Cap ETF	NYSE Arca.
EAR	iShares Short Maturity Bond ETF	Cboe BZX.
/P	iShares Russell Mid-Cap Growth ETF	NYSE Arca.
VEB	KraneShares CSI China Internet ETF	NYSE Arca.
FA	iShares Currency Hedged MSCI EAFE ETF	Cboe BZX.
VI	iShares MSCI Italy Capped ETF	NYSE Arca.
/V	iShares Russell 3000 ETF	NYSE Arca.
F	iShares U.S. Financials ETF	NYSE Arca.
ZA	iShares MSCI South Africa ETF	NYSE Arca.
(F	Vanguard Extended Market Index Fund	NYSE Arca.
W	iShares U.S. Technology ETF	NYSE Arca.
HT	Vanguard Health Care ETF	NYSE Arca.
L	SPDR Bloomberg Barclays 1–3 Month T-Bill ETF	NYSE Arca.
JP	PowerShares DB US Dollar Index Bullish Fund	NYSE Arca.
UR	iShares Core MSCI Europe ETF	NYSE Arca.
3C	PowerShares DB Commodity Index Tracking Fund	NYSE Arca.
=V	iShares MSCI EAFE Value ETF	Cboe BZX.
EZU	iShares Currency Hedged MSCI Eurozone ETF	NYSE Arca.
CHB	Schwab U.S. Broad Market ETF	NYSE Arca.
V	iShares Europe ETF	NYSE Arca.
CHD	Schwab U.S. Dividend Equity ETF	NYSE Arca.
V	Vanguard Large-Cap ETF	NYSE Arca.
GX	PowerShares Preferred Portfolio	NYSE Arca.
WL	iShares MSCI Switzerland Capped ETF	NYSE Arca.
PL	Vanguard FTSE Pacific ETF	NYSE Arca.
K	iShares S&P Mid-Cap 400 Growth ETF	NYSE Arca.
OTZ	Global X Robotics & Artificial Intelligence Thematic ETF	NASDAQ.
MBS	Vanguard Mortgage-Backed Securities ETF	NASDAQ.
(US	iShares Core MSCI Total International Stock ETF	NASDAQ.
CLT	Vanguard Long-Term Corporate Bond ETF	NASDAQ.
CHE	Schwab Emerging Markets Equity ETF	NYSE Arca.
T	Global X Lithium & Battery Tech ETF	NYSE Arca.
SHR	Xtrackers Harvest CSI 300 China A-Shares ETF	NYSE Arca.
CWX	iShares MSCI ACWI ex US ETF	NASDAQ.
OE	Vanguard Mid-Cap Value ETF	NYSE Arca.
DE	Vanguard Energy ETF	NYSE Arca.
DV	iShares Core High Dividend ETF	NYSE Arca.
ISG	iShares Core US Growth ETF	NASDAQ.
CHA	Schwab U.S. Small-Cap ETF	NYSE Arca.
SQ	ProShares Short QQQ	NYSE Arca.
OVT	iShares Core US Treasury Bond ETF	Cboe BZX.
BWB	PowerShares KBW Bank Portfolio	NASDAQ.
EMV	iShares MSCI Emerging Markets Minimum Volatility ETF/Dup	Cboe BZX.
ΓΙΡ	Vanguard Short-Term Inflation-Protected Securities ETF	NASDAQ.
WX	SPDR Dow Jones International Real Estate ETF	NYSE Arca.
OBO	ROBO Global Robotics and Automation Index ETF	NASDAQ.
BJP	Xtrackers MSCI Japan Hedged Equity ETF	NYSE Arca.
VQI	Vanguard Global ex-U.S. Real Estate ETF	NASDAQ.
HYG	iShares 0–5 Year High Yield Corporate Bond ETF	NYSE Arca.
UAL	iShares MSCI USA Quality Factor ETF	Cboe BZX.
iV	iShares North American Tech-Software ETF	Cboe BZX.
PP	iShares MSCI Pacific ex Japan ETF	NYSE Arca.
<u>//Q</u>	iShares MSCI France ETF	NYSE Arca.
_UE	iShares MSCI USA Value Factor ETF	Cboe BZX.
SS	Vanguard FTSE All-World Ex-US Small-Cap Index Fund	NYSE Arca.
CH	iShares MSCI Chile Capped ETF	Cboe BZX.
CHZ	Schwab U.S. Aggregate Bond ETF	NYSE Arca.
	iShares International Select Dividend ETF	Cboe BZX.
)V		NIVCE Area
ov S	iShares S&P Small-Cap 600 Value ETF	NYSE Arca.
ov S BEU	Xtrackers MSCI Europe Hedged Equity ETF	NYSE Arca.
ov S		

Ticker	ETP name	Exchang
CHO	Schwab Short-Term U.S. Treasury ETF	NYSE Arca.
CHH	Schwab U.S. REIT ETF	NYSE Arca.
SV	iShares Core US Value ETF	NASDAQ.
CHG	Schwab U.S. Large-Cap Growth ETF	NYSE Arca.
I M	SPDR Nuveen Bloomberg Barclays Short Term Municipal Bond ETF	NYSE Arca.
E	First Trust Preferred Securities and Income ETF	NYSE Arca.
PSB	SPDR Bloomberg Barclays Short Term Corporate Bond ETF	NYSE Arca.
3K	Vanguard Small-Cap Growth ETF	NYSE Arca.
CWV	iShares MSCI All Country World Minimum Volatility ETF	Cboe BZX.
OTL	SPDR DoubleLine Total Return Tactical ETF	NYSE Arca.
ΓΕΒ	Vanguard Tax-Exempt Bond Index Fund	NYSE Arca.
(U	First Trust Utilities AlphaDEX Fund	NYSE Arca.
Τ	iShares S&P Small-Cap 600 Growth ETF	NASDAQ.
М	iShares U.S. Basic Materials ETF	NYSE Arca.
LPI	ETRACS Alerian MLP Infrastructure ETN	NYSE Arca.
PU	Vanguard Utilities Index Fund	NYSE Arca.
RLN	SPDR Blackstone/GSO Senior Loan ETF	NYSE Arca.
(L	First Trust Technology AlphaDEX Fund	NYSE Arca.
V	Vanguard Long-Term Bond ETF	NYSE Arca.
PHD	PowerShares S&P 500 High Dividend Low Volatility Portfolio	NYSE Arca.
H	iShares U.S. Healthcare ETF	NYSE Arca.
틴	SPDR Nuveen Bloomberg Barclays Municipal Bond ETF	NYSE Arca.
F	iShares Cohen & Steers REIT ETF	Cboe BZX.
DC	Vanguard Consumer Staples ETF	NYSE Arca.
VM	Shares MSCI Malaysia ETF	NYSE Arca.
OX	Vanguard Telecommunication Services ETF	NYSE Arca.
J	iShares S&P Mid-Cap 400 Value ETF	NYSE Arca.
CHP	Schwab U.S. TIPS ETF	NYSE Arca.
BA	PowerShares DB Agriculture Fund	NYSE Arca.
HD	iShares MSCI Thailand Capped ETF	NYSE Arca.
S	Vanguard Industrials ETF	NYSE Arca.
DO	iShares MSCI Indonesia ETF	NYSE Arca.
G	iShares U.S. Financial Services ETF	NYSE Arca.
VGL	VanEck Vectors Fallen Angel High Yield Bond ETF	NYSE Arca
WM	ProShares Short Russell2000	NYSE Arca
	First Trust Enhanced Short Maturity ETF	NASDAQ.
TSM		
WS	iShares MSCI Singapore Capped ETF	NYSE Arca
VD	First Trust Value Line Dividend Index Fund	NYSE Arca.
WX	SPDR Bloomberg Barclays International Treasury Bond ETF	NYSE Arca.
<u>L</u>	iPath S&P GSCI Crude Oil Total Return Index ETNs	NYSE Arca.
Έ	iShares U.S. Energy ETF	NYSE Arca.
TEC	First Trust NASDAQ.–100 Technology Index Fund	NASDAQ.
GRO	Shares Core Dividend Growth ETF	NYSE Arca.
JR	Shares MSCI Turkey ETF	NASDAQ.
OT	Vanguard Mid-Cap Growth ETF	NYSE Arca.
Z	iShares US Telecommunications ETF	Cboe BZX.
HB	PowerShares High Yield Corporate Bond Portfolio	NYSE Arca.
CHV	Schwab U.S. Large-Cap Value ETF	NYSE Arca
E	SPDR S&P Insurance ETF	NYSE Arca
Ū	iShares U.S. Utilities ETF	NYSE Arca
MLP	First Trust North American Energy Infrastructure Fund	NYSE Arca
EM	iShares Mortgage Real Estate Capped ETF	Cboe BZX.
NR	SPDR Dow Jones REIT ETF	NYSE Arca
RUS	iShares MSCI Russia Capped ETF	NYSE Arca
GK	Vanguard Mega Cap Growth ETF	NYSE Arca
GSH	Vanguard Short-Term Government Bond ETF	NASDAQ.
KB	CurrencyShares British Pound Sterling Trust	NYSE Arca
OBL	ProShares S&P 500 Dividend Aristocrats ETF	Cboe BZX.
3IL	Goldman Sachs TreasuryAccess® 0–1 Year ETF	NYSE Arca
RF	PowerShares FTSE RAFI U.S. 1000 Portfolio	NYSE Arca
=G	Shares MSCI EAFE Growth ETF	Cboe BZX.
MZA	InfraCap MLP ETF	NYSE Arca.
VI	iShares Intermediate Government/Credit Bond ETF	Cboe BZX.
JNR	FlexShares Global Upstream Natural Resources Index Fund	NYSE Arca
AW	Vanguard Materials ETF	NYSE Arca
AR	SPDR S&P Aerospace & Defense ETF	NYSE Arca
OND	PIMCO Active Bond Exchange-Traded Fund	NYSE Arca.
TWO	Vanguard Russell 2000	NASDAQ.
iF _RN	iShares Global Infrastructure ETF	NASDAQ.
	SPDR Bloomberg Barclays Investment Grade Floating Rate ETF	NYSE Arca.

Ticker	ETP name	Exchange
NDX	Schwab Fundamental U.S. Large Company Index ETF	NYSE Arca.
RWO	SPDR Dow Jones Global Real Estate ETF	NYSE Arca.
WD	iShares MSCI Sweden Capped ETF	NYSE Arca.
QQQ	Guggenheim China Technology ETF	NYSE Arca.
RP	PowerShares Variable Rate Preferred Portfolio	NYSE Arca.
ΓEC	Fidelity MSCI Information Technology Index ETF	NYSE Arca.
V	VelocityShares Daily Inverse VIX Medium Term ETN	NASDAQ.
J	Shares U.S. Industrials ETF	Cboe BZX.
EM	WisdomTree Emerging Markets High Dividend Fund	NYSE Arca.
SMC	Principal U.S. Mega-Cap Multi-Factor ETF	NASDAQ.
SY	Guggenheim Ultra Short Duration ETF	NYSE Arca.
ES	SPDR S&P Oil & Gas Equipment & Services ETF	NYSE Arca.
GIT	Vanguard Intermediate-Term Government Bond ETF	NASDAQ.
CR	Vanguard Consumer Discretionary ETF	NYSE Arca.
NDF	Schwab Fundamental International Large Company Index ETF	NYSE Arca.
(Y	CurrencyShares Japanese Yen Trust	NYSE Arca.
IDA	Schwab Fundamental U.S. Small Company Index ETF	NYSE Arca.
EV	iShares Core MSCI International Developed Markets ETF	NYSE Arca.
ON	WisdomTree U.S. MidCap Dividend Fund	NYSE Arca.
M	VanEck Vectors AMT-Free Intermediate Municipal Index ETF	NYSE Arca.
ACK	ETFMG Prime Cyber Security ETF	NYSE Arca.
RED	iShares Core US Credit Bond ETF	NASDAQ.
NCL	Fidelity MSCI Financials Index ETF	NYSE Arca.
N	iShares Global Tech ETF	NYSE Arca.
NEQ	Fidelity NASDAQ. Composite Index Tracking Stock ETF	NASDAQ.
PDW	SPDR S&P World ex-US ETF	NYSE Arca.
EWG	iShares Currency Hedged MSCI Germany ETF	NASDAQ.
3F	ProShares Short 20+ Year Treasury	NYSE Arca.
PG	Guggenheim S&P 500 Pure Growth ETF	NYSE Arca.
OG	ProShares Short Dow30	NYSE Arca.
/T	Guggenheim S&P Equal Weight Technology ETF	NYSE Arca.
MBS	First Trust Low Duration Opportunities ETF	NASDAQ.
XC	SPDR S&P China ETF	NYSE Arca.
PHB	PowerShares S&P 500® High Beta Portfolio	NYSE Arca.
IDY	iShares India 50 ETF	NASDAQ.
C	iShares U.S. Consumer Services ETF	NYSE Arca.
ING	iShares MSCI Global Gold Miners ETF	NASDAQ.
DYG	SPDR S&P 400 Mid Cap Growth ETF	NYSE Arca.
FE	WisdomTree Europe SmallCap Dividend Fund	NYSE Arca.
GRW	WisdomTree U.S. Quality Dividend Growth Fund	NASDAQ.
PEM	SPDR S&P Emerging Markets ETF	NYSE Arca. NYSE Arca.
NDE C	Schwab Fundamental Emerging Markets Large Company Index ETF	NYSE Arca.
	icharea MCCI Dhilinging ETE	
PHE	iShares MSCI Philippines ETF	NYSE Arca. NYSE Arca.
GS KC	CurrencyShares Canadian Dollar Trust	NYSE Arca.
POL	iShares MSCI Poland Capped ETF	NYSE Arca.
SLC	Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF	NYSE Arca.
TB	iShares Core 1–5 Year USD Bond ETF	NASDAQ.
NOB	Vanguard Emerging Markets Government Bond ETF	NASDAQ.
TIP	iShares 0–5 Year TIPS Bond ETF	NYSE Arca.
JB	iShares Short-Term National Muni Bond ETF	NYSE Arca.
.H	iShares 10–20 Year Treasury Bond ETF	NYSE Arca.
MHY	iShares Emerging Markets High Yield Bond ETF	Cboe BZX.
(O	First Trust Financial AlphaDEX Fund	NYSE Arca.
ORS	Innovator IBD® ETF Leaders ETF	NYSE Arca.
PAB	SPDR Bloomberg Barclays Aggregate Bond ETF	NYSE Arca.
YV	SPDR S&P 600 Small Cap Value ETF	NYSE Arca.
JP	iPath Bloomberg Commodity Index Total Return ETN	NYSE Arca.
OOG	ALPS Sector Dividend Dogs ETF	NYSE Arca.
_PA	Global X MLP ETF	NYSE Arca.
BT	First Trust NYSE Arca. Biotechnology Index Fund	NYSE Arca.
/	First Trust Dorsey Wright Focus 5 ETF	NASDAQ.
CHR	Schwab Intermediate-Term U.S. Treasury ETF	NYSE Arca.
DYV	SPDR S&P 400 Mid Cap Value ETF	NYSE Arca.
AN	Guggenheim Solar ETF	NYSE Arca.
TSL	First Trust Senior Loan ETF	NASDAQ.
ZA	PowerShares National AMT-Free Municipal Bond Portfolio	NYSE Arca.
OOG	Vanguard S&P 500 Growth ETF	NYSE Arca.
EX	First Trust Large Cap Core AlphaDEX Fund	NASDAQ.
	First Trust ISE Cloud Computing Index Fund	NASDAQ.

Ticker	ETP name	Exchang
DIV	Global X SuperDividend ETF	NYSE Arca.
ΛΤ	iShares U.S. Regional Banks ETF	NYSE Arca.
_YG	SPDR S&P 600 Small Cap Growth ETF	NYSE Arca.
K	Shares U.S. Consumer Goods ETF	NYSE Arca.
SB	Shares Core Total USD Bond Market ETF	NASDAQ.
LT	Vanguard Long-Term Government Bond ETF	NASDAQ.
3D	SPDR S&P Semiconductor ETF	NYSE Arca.
OV	Vanguard Extended Duration Treasury ETF	NYSE Arca.
/LS	First Trust Exchange-Traded Fund IV First Trust Tactical High Yield ETF	NASDAQ.
VI	SPDR MSCI ACWI ex-US ETF	NYSE Arca.
REK	Global X MSCI Greece ETF	NYSE Arca.
·	iShares Exponential Technologies ETF	NASDAQ.
PTM	SPDR Portfolio Total Stock Market ETF	NYSE Arca.
PLT	ETFS Physical Platinum Shares	NYSE Arca.
/LV	PowerShares S&P MidCap Low Volatility Portfolio	NYSE Arca.
GI	Vanguard International Dividend Appreciation ETF	NASDAQ.
CHK	Schwab 1000 Index® ETF	NYSE Arca.
PYG	SPDR Portfolio S&P 500 Growth ETF	NYSE Arca.
М	Shares North American Tech ETF	NYSE Arca.
RKK	ARK Innovation ETF	NYSE Arca.
SLV	PowerShares S&P SmallCap Low Volatility Portfolio	NYSE Arca.
(H	First Trust Health Care AlphaDEX Fund	NYSE Arca.
/Y	Shares Russell Top 200 Growth ETF	NYSE Arca.
ONG	Vanguard Russell 1000 Growth ETF	NASDAQ.
WN	Shares MSCI Netherlands ETF	NYSE Arca.
_RG	IQ Chaikin U.S. Large Cap ETF	NASDAQ.
CK	Shares MSCI Global Metals & Mining Producers ETF	Cboe BZX.
ES	WisdomTree U.S. SmallCap Dividend Fund	NYSE Arca.
CHC	Schwab International Small-Cap Equity ETF	NYSE Arca.
iOV	Shares International Treasury Bond ETF	NASDAQ.
NR	SPDR S&P Global Natural Resources ETF	NYSE Arca.
_Y	iShares 10+ Year Credit Bond ETF	NYSE Arca.
AC	iShares Core MSCI Pacific ETF	NYSE Arca.
MQQ	EMQQ The Emerging Markets Internet & Ecommerce ETF	NYSE Arca.
TY	Innovator IBD® 50 ETF	NYSE Arca.
EQ	AI Powered Equity ETF	NYSE Arca.
EP	First Trust Europe AlphaDEX Fund	NASDAQ.
LS	WisdomTree International SmallCap Dividend Fund	NYSE Arca.
J	iShares Global Healthcare ETF	NYSE Arca.
OM MC	iShares Core Moderate Allocation Fund	NYSE Arca.
GF	PowerShares Financial Preferred Portfolio	NYSE Arca.
XR	First Trust Industrials/Producer Durables AlphaDEX Fund	NYSE Arca.
O	iPath Bloomberg Coffee Subindex Total Return ETN	NYSE Arca.
DL	First Trust Morningstar Dividend Leaders Index Fund	NYSE Arca.
HLC	Fidelity MSCI Health Care Index ETF	NYSE Arca.
۲Z	iPATH S&P 500 VIX Mid-Term Futures ETN	NYSE Arca.
L	Global X Silver Miners ETF	NYSE Arca.
RGF	iShares Edge MSCI Multifactor USA ETF	NYSE Arca.
PLG	SPDR Portfolio Large Cap ETF	NYSE Arca.
FJ	WisdomTree Japan SmallCap Dividend Fund	NYSE Arca.
HYS	Sprott Physical Gold Trust	NYSE Arca
PTL	SPDR Bloomberg Barclays Long Term Treasury ETF	NYSE Arca
RA	Global X Uranium ETF	NYSE Arca
PIN	JPMorgan Diversified Return International Equity ETF	NYSE Arca
DBC	PowerShares DB Optimum Yield Diversified Commodity Strategy Portfolio	NASDAQ.
YMB	SPDR Nuveen S&P High Yield Municipal Bond ETF	NYSE Arca
NDC	Schwab Fundamental International Small Company Index ETF	NYSE Arca
YLB	Xtrackers USD High Yield Corporate Bond ETF	NYSE Arca
(H	PowerShares FTSE RAFI Emerging Markets Portfolio	NYSE Arca
30	PowerShares DB Oil Fund	NYSE Arca
RFZ	PowerShares FTSE RAFI US 1500 Small-Mid Portfolio	NASDAQ.
Α	iShares Asia 50 ETF	NASDAQ.
NX	SPDR S&P International Dividend ETF	NYSE Arca.
OAT	VanEck Vectors Morningstar Wide Moat ETF	NYSE Arca.
PH	SPDR S&P Pharmaceuticals ETF	NYSE Arca
PV	Guggenheim S&P 500 Pure Value ETF	NYSE Arca.
OR	iShares Core Growth Allocation Fund	NYSE Arca.
	SPDR Bloomberg Barclays Intermediate Term Treasury ETF	NYSE Arca. NYSE Arca.
E		
SI YMI	PowerShares Dynamic Semiconductors Portfolio	NYSE Arca.
I IVII	Vanguard International High Dividend Yield ETF	NASDAQ.

Ticker	ETP name	Exchange
JPMF	JPMorgan Managed Futures Strategy ETF	NYSE Arca.
SCIF	VanEck Vectors India Small-Cap Index ETF	NYSE Arca.
M	iShares MSCI Frontier 100 ETF	NYSE Arca.
DT	First Trust Developed Markets ex-US AlphaDEX Fund	NASDAQ.
SI	iShares MSCI KLD 400 Social ETF	NYSE Arca.
WX	SPDR S&P International Small Cap ETF	NYSE Arca.
LQD	iShares 0-5 Year Investment Grade Corporate Bond ETF	NASDAQ.
RKW	ARK Web x.0 ETF	NYSE Arca.
ΓPZ	PIMCO 1–5 Year U.S. TIPS Index Exchange-Traded Fund	NYSE Arca.
PSM	SPDR Portfolio Small Cap ETF	NYSE Arca.
0	iShares U.S. Oil & Gas Exploration & Production ETF	Cboe BZX.
PHQ	PowerShares S&P 500 Quality Portfolio	NYSE Arca.
NQI	PowerShares NASDAQ. Internet Portfolio	NASDAQ.
/C	iShares Micro-Cap ETF	NYSE Arca. NYSE Arca.
OO YH	Vanguard S&P Small-Cap 600 ETF	NYSE Arca.
GOL	ETFS Physical Swiss Gold Shares	NYSE Arca.
EMX	VanEck Vectors Rare Earth/Strategic Metals ETF	NYSE Arca.
EET	iShares Global REIT ETF	NYSE Arca.
DNV	Vanguard Russell 1000 Value	NASDAQ.
F	iShares U.S. Healthcare Providers ETF	NYSE Arca.
SCI	Guggenheim BulletShares 2018 Corporate Bond ETF	NYSE Arca.
GV	Vanguard Mega Cap Value ETF	NYSE Arca.
SJJ	Guggenheim BulletShares 2019 High Yield Corporate Bond ETF	NYSE Arca.
3H	VanEck Vectors Biotech ETF	NASDAQ.
E	iShares North American Natural Resources ETF	Cboe BZX.
SJK	Guggenheim BulletShares 2020 High Yield Corporate Bond ETF	NYSE Arca.
DP	PowerShares DWA Momentum Portfolio	NASDAQ.
XA	CurrencyShares Australian Dollar Trust	NYSE Arca.
SJI	Guggenheim BulletShares 2018 High Yield Corporate Bond ETF	NYSE Arca.
FDI	First Trust RiverFront Dynamic Developed International ETF	NASDAQ.
ORP	PIMCO Investment Grade Corporate Bond Index Exchange-Traded Fund	NYSE Arca.
PX	First Trust US IPO Index Fund	NYSE Arca.
EM	Goldman Sachs ActiveBeta Emerging Markets Equity ETF	NYSE Arca.
WV	PowerShares Dynamic Large Cap Value Portfolio	NYSE Arca.
SCK	Guggenheim BulletShares 2020 Corporate Bond ETF	NYSE Arca.
DTT	FlexShares iBoxx 3-Year Target Duration TIPS Index Fund	NYSE Arca.
MU	ETRACS Alerian MLP Index ETN	NYSE Arca.
(G	iShares Global Financials ETF	NYSE Arca.
XD	First Trust Consumer Discretionary AlphaDEX Fund	NYSE Arca.
LN	WisdomTree U.S. LargeCap Dividend Fund	NYSE Arca.
TB	iShares Core Long-Term USD Bond ETF	NYSE Arca.
REL	Fidelity MSCI Real Estate Index ETF	NYSE Arca.
CJ	iShares MSCI Japan Small-Cap ETF	NYSE Arca.
PMD	SPDR S&P 1000 ETF	NYSE Arca.
SG	iShares S&P GSCI Commodity-Indexed Trust	NYSE Arca.
ENY	Fidelity MSCI Energy Index ETF	NYSE Arca.
SCJ	Guggenheim BulletShares 2019 Corporate Bond ETF	NYSE Arca.
XG	First Trust Consumer Staples AlphaDEX Fund	NYSE Arca.
AB	PowerShares Taxable Municipal Bond Portfolio	NYSE Arca.
Al	IQ Hedge Multi-Strategy Tracker ETF	NYSE Arca.
PYV PH	SPDR Portfolio S&P 500 Value ETF	NYSE Arca. NASDAQ.
MIN		Cboe BZX.
BB	iShares MSCI India Small-Cap ETF	NYSE Arca.
OK	iShares MSCI Kokusai ETF	NYSE Arca.
ECT	Main Sector Rotation ETF	Cboe BZX.
2G	First Trust Natural Gas ETF	NYSE Arca.
OG	Vanguard S&P Mid-Cap 400 Growth ETF	NYSE Arca.
(I	iShares Global Industrials ETF	NYSE Arca.
NO	iShares MSCI Austria Capped ETF	NYSE Arca.
GG	iPath Bloomberg Sugar Subindex Total Return ETN	NYSE Arca.
LV	PowerShares S&P International Developed Low Volatility Portfolio	NYSE Arca.
ZE	iShares Edge MSCI USA Size Factor ETF	NYSE Arca.
ΓA	First Trust Large Cap Value AlphaDEX Fund	NASDAQ.
LEE	Franklin FTSE Europe ETF	NYSE Arca.
JP	PowerShares Dynamic Pharmaceuticals Portfolio	NYSE Arca.
CON	EGShares Emerging Markets Consumer ETF	NYSE Arca.
EM	First Trust Emerging Markets AlphaDEX Fund	NASDAQ.
FXI	IQ 50 Percent Hedged FTSE International ETF	NYSE Arca.
	SPDR Bloomberg Barclays Emerging Markets Local Bond ETF	NYSE Arca.

Ticker	ETP name	Exchange
INTF	iShares Edge MSCI Multifactor Intl ETF	NYSE Arca.
EUM	ProShares Short MSCI Emerging Markets	NYSE Arca.
FV	First Trust Dorsey Wright International Focus 5 ETF	NASDAQ.
EMB	iShares J.P. Morgan EM Local Currency Bond ETF	NYSE Arca.
PE	SPDR Bloomberg Barclays TIPS ETF	NYSE Arca.
3SCL	Guggenheim BulletShares 2021 Corporate Bond ETF	NYSE Arca.
OK	Shares Core Conservative Allocation Fund	NYSE Arca.
HE	iShares U.S. Pharmaceuticals ETF	NYSE Arca.
XZ	First Trust Materials AlphaDEX Fund	NYSE Arca.
YY	iShares Dow Jones U.S. ETF	NYSE Arca.
XF	PowerShares FTSE RAFI Developed Markets ex-U.S. Portfolio	NYSE Arca.
DF	FlexShares Quality Dividend Index Fund	NYSE Arca. NYSE Arca.
YEM OA	iShares Core Aggressive Allocation Fund	NYSE Arca.
YF	Guggenheim S&P Equal Weight Financial ETF	NYSE Arca.
SLV	Sprott Physical Silver Trust	NYSE Arca.
XN	First Trust Energy AlphaDEX Fund	NYSE Arca.
PYD	SPDR Portfolio S&P 500 High Dividend ETF	NYSE Arca.
00	VanEck Vectors Agribusiness ETF	NYSE Arca.
LVM	VISAA MSCI USA Value Momentum Blend Index ETF	NYSE Arca.
KW	PowerShares Buyback Achievers Portfolio	NASDAQ.
WS	Pacer WealthShield ETF	Choe BZX.
QEW	First Trust NASDAQ100 Equal Weighted Index Fund	NASDAQ.
HS	WisdomTree U.S. High Dividend Fund	NYSE Arca.
00	Vanguard S&P Mid-Cap 400 ETF	NYSE Arca.
MF	iShares California Muni Bond ETF	NYSE Arca.
HG	ProShares Investment Grade-Interest Rate Hedged ETF	Cboe BZX.
PLB	SPDR Bloomberg Barclays Long Term Corporate Bond ET	NYSE Arca.
ID	PowerShares International Dividend Achievers Portfolio	NASDAQ.
ONE	Vanguard Russell 1000	NASDAQ.
.GG	iShares International Aggregate Bond Fund	Cboe BZX.
PU	iShares MSCI All Peru Capped ETF	NYSE Arca.
WL	Oppenheimer Large Cap Revenue ETF	NYSE Arca.
HS	Guggenheim S&P 500 Equal Weight Consumer Staples ETF	NYSE Arca.
SRT	iShares U.S. Core REIT ETF	NYSE Arca.
IGC	Vanguard Mega Cap 300 Index Fund	NYSE Arca.
TLC	Pacer Trendpilot 750 ETF	Cboe BZX.
QDF	FlexShares International Quality Dividend Index Fund	NYSE Arca.
WX	SPDR S&P Emerging Markets Small Cap ETF	NYSE Arca.
KD	Shares Morningstar Large-Cap ETF	NYSE Arca.
XF	CurrencyShares Swiss Franc Trust	NYSE Arca.
FXF	VanEck Vectors Preferred Securities ex Financials ETF	NYSE Arca.
VHD	Legg Mason Low Volatility High Dividend ETF	NASDAQ.
BWY	PowerShares KBW Premium Yield Equity REIT Portfolio	NASDAQ.
EMS	First Trust Emerging Markets Small Cap AlphaDEX Fund	NASDAQ.
FO	Victory CEMP US 500 Enhanced Volatility Wtd Index ETF	NASDAQ.
SCT	PowerShares S&P SmallCap Information Technology Portfolio	NASDAQ.
IB	iPath Bloomberg Cocoa Subindex Total Return ETN	NYSE Arca.
SML	IQ Chaikin U.S. Small Cap ETF	NASDAQ.
SCM	Guggenheim BulletShares 2022 Corporate Bond ETF	NYSE Arca.
Z	iShares U.S. Oil Equipment & Services ETF	NYSE Arca.
JTY	Fidelity MSCI Utilities Index ETF	NYSE Arca.
rcs	First Trust Capital Strength ETF	NASDAQ.
ALL	ETFS Physical Palladium Shares	NYSE Arca.
_G	Guggenheim S&P 500® Top 50 ETF	NYSE Arca.
SJL	Guggenheim BulletShares 2021 High Yield Corporate Bond ETF	NYSE Arca. NYSE Arca.
DIV GW	Oppenheimer Ultra Dividend Revenue ETF	NYSE Arca.
	Guggenheim BulletShares 2017 Corporate Bond ETF	NYSE Arca.
SCH STA	Fidelity MSCI Consumer Staples Index ETF	NYSE Arca.
DD	First Trust STOXX European Select Dividend Income Fund	NYSE Arca.
SP	PowerShares Global Listed Private Equity Portfolio	NYSE Arca.
DU	Fidelity MSCI Industrials Index ETF	NYSE Arca.
NM	VanEck Vectors Vietnam ETF	NYSE Arca.
SK	SPDR Wells Fargo Preferred Stock ETF	NYSE Arca.
DIV	First Trust Multi-Asset Diversified Income Index Fund	NASDAQ.
RGT	Global X MSCI Argentina ETF	NYSE Arca.
EMA	iShares MSCI Emerging Markets Asia ETF	NASDAQ.
ZM	WisdomTree U.S. MidCap Earnings Fund	NYSE Arca.
GL	iShares International Developed Real Estate ETF	NASDAQ.
	,	NYSE Arca.

[As of January 2, 2018]

Ticker	ETP name	Exchange
TDTF	FlexShares iBoxx 5-Year Target Duration TIPS Index Fund	NYSE Arca.
PEY	PowerShares High Yield Equity Dividend Achievers Portfolio	NASDAQ.
ATMP	Barclays ETN+ Select MLP ETN	NYSE Arca.
PTH	PowerShares DWA Healthcare Momentum Portfolio	NASDAQ.
00	iShares Global 100 ETF	NYSE Arca.
BBF	iShares Government/Credit Bond ETF	NYSE Arca.
TXO	First Trust Nasdag Bank ETF	NASDAQ.
IXD	First Trust TCW Opportunistic Fixed Income ETF	NASDAQ.
IEEM	iShares Currency Hedged MSCI Emerging Markets ETF	Choe BZX.
'IN	PowerShares India Portfolio	NYSE Arca.
CEF	PowerShares CEF Income Composite Portfolio	NYSE Arca.
CHIQ	Global X China Consumer ETF	NYSE Arca.
WM	WisdomTree International Equity Fund	NYSE Arca.
XSE	WisdomTree Trust WisdomTree China ex-State-Owned Enterprises Fund	NASDAQ.
-		
OOV	Vanguard S&P 500 Value ETF	NYSE Arca.
YE	Guggenheim S&P 500 Equal Weight Energy ETF	NYSE Arca.
KB	PowerShares Dynamic Building & Construction Portfolio	NYSE Arca.
MF	SPDR S&P Emerging Asia Pacific ETF	NYSE Arca.
1NA	IQ Merger Arbitrage ETF	NYSE Arca.
MAT	Fidelity MSCI Materials Index ETF	NYSE Arca.
USA	O'Shares FTSE U.S. Quality Dividend ETF	NYSE Arca.
ZV	Guggenheim S&P Smallcap 600 Pure Value ETF	NYSE Arca.
3DM	iShares iBonds Dec 2021 Term Corporate ETF	NYSE Arca.
LTR	VanEck Vectors Investment Grade Floating Rate ETF	NYSE Arca.
NO	United States Brent Oil Fund, LP	NYSE Arca.
ABA	First Trust NASDAQ. ABA Community Bank Index Fund	NASDAQ.
DIS	Fidelity MSCI Consumer Discretionary Index ETF	NYSE Arca.
LY	SPDR S&P 600 Small Cap ETF	NYSE Arca.
DC	Victory CEMP US EQ Income Enhanced Volatility Wtd Index ETF	NASDAQ.
YX	First Trust Small Cap Core AlphaDEX Fund	NASDAQ.
USA	iShares MSCI USA ESG Select ETF	NYSE Arca.
EZ	iShares Residential Real Estate Capped ETF	NYSE Arca.
3DL	iShares iBonds Dec 2020 Term Corporate ETF	NYSE Arca.
SJH	Guggenheim BulletShares 2017 High Yield Corporate Bond ETF	NYSE Arca.
IVM	USAA MSCI International Value Momentum Blend Index ETF	NYSE Arca.
SIE	Goldman Sachs ActiveBeta International Equity ETF	NYSE Arca.
GGY	WisdomTree Barclays Yield Enhanced U.S. Aggregate Bond Fund	NYSE Arca.
PUS	JPMorgan Diversified Return US Equity ETF	NYSE Arca.
GI	Guggenheim S&P 500 Equal Weight Industrials ETF	NYSE Arca.
-	WisdomTree International Hedged Quality Dividend Growth Fund	NYSE Arca.
IDG		NYSE Arca.
RTH	iShares MSCI World ETF	
GL	PowerShares DB Gold Fund	NYSE Arca.
IBR	First Trust NASDAQ. Cybersecurity ETF	NASDAQ.
MB	First Trust Managed Municipal ETF	NASDAQ.
TC	First Trust Large Cap Growth AlphaDEX Fund	NASDAQ.
DVY	First Trust NASDAQ. Rising Dividend Achievers ETF	NASDAQ.
BA	KraneShares Bosera MSCI China A Share ETF	NYSE Arca.
XJS	WisdomTree Japan Hedged SmallCap Equity Fund	NASDAQ.
DIV	First Trust NASDAQ. Technology Dividend Index Fund	NASDAQ.
KP	iShares Global Telecom ETF	NYSE Arca.
LX	VanEck Vectors Steel ETF	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
 - Ticker, date, time entered, time exited, flag for ending with Limit State, flag for ending with manual override.
 - Pipe delimited with field names as first record.
- B. Record of every Price Band
 - 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
 - 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
 - Count arriving, volume arriving and shares executing in limit sell orders above NBBO mid-point
 - Count arriving, volume arriving and shares executing in limit sell orders at or below NBBO mid-point (non-marketable)
 - Count arriving, volume arriving and shares executing in limit buy orders at or above NBBO mid-point (non-marketable)
 - 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 midpoint plus \$0.05
 - Count and volume arriving of limit buy orders priced at or below NBBO midpoint minus \$0.05

- Count and volume of (3–8) for cancels
 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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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-82883; File No. SR-LCH SA-2018-001]

Self-Regulatory Organizations; LCH SA; Order Granting Approval on an Accelerated Basis of Proposed Rule Change Relating to Self-Referencing Transactions

March 15, 2018.

I. Introduction

On January 31, 2018, Banque Centrale de Compensation, which conducts business under the name LCH SA ("LCH SA"), 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 (SR–LCH SA–2018–001) to amend its CDS Clearing Supplement and its CDS Clearing Procedures in order to allow for the

clearance and settlement of client transactions referencing the client's clearing broker, as well as to amend its Clearing Supplement to provide for the clearance of the Standard European Senior Non Preferred Financial Corporate Transaction type, and to make certain clarifying amendments.³ The proposed rule change was published for comment in the Federal Register on February 15, 2018.4 The Commission did not receive comments on the proposed rule change. For the reasons discussed below, the Commission is approving the proposed rule change on an accelerated basis.

II. Description of the Proposed Rule Change

As currently constructed, LCH SA's rules prohibit certain "self-referencing" transactions. Specifically, LCH SA prohibits, in the case of a house transaction,⁵ the clearing of single-name credit default swap ("SN CDS") transactions where the reference entity underlying the SN CDS is the Clearing Member, or an affiliate of the Clearing Member, that is clearing the transaction. In the case of a client transaction, LCH SA currently prohibits clearing of a transaction in which the reference entity underlying the SN CDS is the client (or an affiliate of the client), or the clearing broker (or affiliate of the clearing broker) of the client that is clearing the CDS transaction.6

Under the proposed rule change, LCH SA would permit the clearing of client transactions where the reference entity underlying the SN CDS is the clearing broker, or an affiliate of the clearing broker, of the client clearing the transaction. Specifically, LCH SA would amend Section 4 of its CDS Clearing Procedures to revise the eligibility requirement for SN CDS to make a distinction between house and client self-referencing transactions in order to permit clients to clear CDS where the underlying reference entity is the client's clearing broker or an affiliate

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ Capitalized terms used in this order, but not defined herein, have the same meaning as in the LCH SA Rules, CDS Clearing Supplement, or CDS Clearing Procedures.

⁴ Securities Exchange Act Release No. 34–82675 (February 9, 2018), 83 FR 6915 (February 15, 2018) (SR–LCH SA–2018–001) ("Notice").

⁵ A house transaction is any Cleared Transaction registered in the House Trade Account of a Clearing Member. A House Trade Account, in turn, is an account opened by LCH SA at the request and in the name of a Clearing Member within the Account Structure of the Clearing Member in the CDS Clearing System in order to register Cleared Transactions cleared by such Clearing Member for its own account. See Section 1.1.1, Terms defined in the CDS Clearing Rule Book, LCH SA CDS Clearing Rule Book, 4 January 2018.

⁶ Notice, 83 FR at 6915.