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SECURITIES AND EXCHANGE COMMISSION

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

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

February 22, 2016

I. Introduction

On February 19, 2016, Nasdaq, Inc., on behalf of the following parties to the National Market System Plan to Address Extraordinary Market Volatility (the "Plan")[1]: BATS Exchange,

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[1] On May 31, 2012, the Commission approved the Plan, as modified by Amendment No. 1. See Securities Exchange Act Release No. 67091, 77 FR 33498 (Jun. 6, 2012) (File No. 4-631) ("Approval Order"). On February 26, 2013, the Commission published for immediate effectiveness the Second Amendment to the Plan. See Securities Exchange Act Release No. 68953 (Feb. 20, 2013), 78 FR 13113. On April 3, 2013, the Commission approved the Third Amendment to the Plan. See Securities Exchange Act Release No. 69287, 78 FR 21483 (Apr. 10, 2013). On September 3, 2013, the Commission published for immediate effectiveness the Fourth Amendment to the Plan. See Securities Exchange Act Release No. 70273 (Aug. 27, 2013), 78 FR 54321 (Fourth Amendment). On September 26, 2013, the Commission approved the Fifth Amendment to the Plan. See Securities Exchange Act Release No. 70530, 78 FR 60937 (Oct. 2, 2013). On January 13, 2014, the Commission published for immediate effective the Sixth Amendment to the Plan. See Securities Exchange Act Release No. 71247 (Jan. 7, 2014), 79 FR 2204 (Sixth Amendment). On April 3, 2014, the Commission approved the Seventh Amendment to the Plan. See Securities Exchange Act Release No. 71851, 79 FR 19687 (Apr. 9, 2014). On February 19, 2015, the Commission approved the Eight

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

II. Description of the Plan

Set forth in this Section II is the statement of the purpose and summary of the Amendment, along with the information required by Rule 608(a)(4) and (5) under the Exchange

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Amendment to the Plan. See Securities Exchange Act Release No. 74323, 80 FR 10169 (Feb. 25, 2015). On October 22, 2015, the Commission approved the Ninth Amendment to the Plan. See Securities Exchange Act Release No. 76244, 80 FR 66099 (Oct. 28, 2015).

2 15 U.S.C. 78k-1.

3 17 CFR 242.608.

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

5 17 CFR 242.608.

Act,[6] prepared and submitted by the Participants to the Commission.[7]

A. Statement of Purpose and Summary of the Plan Amendment

The Participants filed the Plan on April 5, 2011, to create a market-wide Limit Up-Limit Down ("LULD") mechanism intended to address extraordinary market volatility in NMS Stocks, as defined in Rule 600(b)(47) of Regulation NMS under the Exchange Act. The Plan sets forth procedures that provide for market-wide LULD requirements that prevent trades in individual NMS Stocks from occurring outside of the specified Price Bands.[8] The LULD requirements are coupled with Trading Pauses, as defined in Section I(Y) of the Plan, to accommodate more fundamental price moves. In particular, the Participants adopted this Plan to address the type of sudden price movements that the market experienced on the afternoon of May 6, 2010.

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

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

7 See Transmittal Letter, supra note 4.

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

Participants, shall establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent trades at prices that are below the Lower Price Band or above the Upper Price Band for an NMS Stock, consistent with the Plan.

The Plan was initially approved for a one-year pilot period, which began on April 8, 2013.[9] Accordingly, the pilot period was scheduled to end on April 8, 2014. As initially contemplated, the Plan would have been fully implemented across all NMS Stocks within six months of initial Plan operations, which meant there would have been full implementation of the Plan for six months before the end of the pilot period. However, pursuant to the Fourth Amendment to the Plan,[10] the Participants modified the implementation schedule of Phase II of the Plan to extend the time period as to when the Plan would fully apply to all NMS Stocks. Accordingly, the Plan was not implemented across all NMS Stocks until December 8, 2013. Pursuant to the Sixth Amendment to the Plan,[11] which further modified the implementation schedule of Phase II of the Plan, the date for full implementation of the Plan was moved to February 24, 2014.

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

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9 See Section VIII of the Plan.

10 See supra note 1.

11 See id.

12 See id.

impact of the Plan and determine whether the Plan should be modified prior to approval on a permanent basis.

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

(1) Executive Summary

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13 See Letter from Christopher B. Stone, Vice President, FINRA, to Brent J. Fields, Secretary, SEC, dated May 28, 2015 and accompanying Supplemental Joint Assessment, prepared by Professor James Angel (the "Supplemental Joint Assessment" or "Angel Report"). This report is available for public viewing at http://www.sec.gov/comments/4-631/4-631.shtml.

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

15 See supra note 13.

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

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

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

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

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

Last, the Participants are proposing to reorder three defined terms under Section I, which are currently not in alphabetical order. Specifically, the term "Reference Price" currently

follows the defined terms "Regular Trading Hours" and "Regulatory Halt." In keeping with the convention of the definitions section, the Participants are placing these terms in alphabetically order.

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

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

To this end, the Primary Listing Exchanges undertook a study to assess the current Plan Parameters around Trading Pauses and reopenings as well as the potential for repeat pauses. The statistical evidence suggests that the current Plan parameters around reopenings are sufficient to promote liquidity in securities following a Trading Pause under the Plan. Although most Trading Pauses end within five minutes, the Plan permits the Primary Listing Exchange to extend the Trading Pause to 10 minutes. Following the ten minute period, market participants may resume trading, even if the Primary Listing Exchange has not reopened the security and has published a non-regulatory order imbalance halt.

(a) Nasdaq-Listed Securities

The operation of LULD during reopenings reflects the same strengths and weaknesses as trading at other times of day for subject securities. Thus, active stocks that have temporary

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[17] See Luparello Letter.

market disruptions reopen with active participation and effective price discovery as they do at the start of the trading day (and during continuous trading). Likewise, stocks experiencing extreme price uncertainty often have price variation before and after a Trading Pause and sometimes pause repeatedly. Inactive stocks that pause often lack investor trading interest, leading to insufficient participation in reopening crosses.

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

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

Table 1: Nasdaq Listed LULD Trading Pauses

Nasdaq-listed LULD halts Jan-Aug 2015, relationship between cross size and activity within 5 minutes of re-open							
			Percent of cases that halt	Volume within 5 minutes		Price range within 5 minutes	
Cross Size Group	Count of halts	Pct	again within 5 minutes	Mean	Median	Mean	Median
0 Shares	3,916	82.9%	36.2%	264	0	2%	0%
1 - 100 shares	199	4.2%	4.5%	318	10	2%	0%
101 - 1,000 shares	326	6.9%	4.9%	1,309	11	4%	1%
1,001 - 10,000 shares	168	3.6%	20.2%	21,104	2,362	8%	7%
10,001 - 100,000 shares	105	2.2%	48.6%	349,543	182,195	16%	14%
> 100,000 shares	12	0.3%	41.7%	1,557,825	1,355,777	11%	11%
Total	4,726		32.4%				

Nasdaq-listed LULD halts Jan-Aug 2015, relationship between cross size and activity within 5 minutes of re-open (without Aug 24)							
			Percent of cases that halt	Volume within 5 minutes		Price range within 5 minutes	
Cross Size Group	Count of halts	Pct	again within 5 minutes	Mean	Median	Mean	Median
0 Shares	3,854	85.0%	36.3%	261	0	2%	0%
1 - 100 shares	190	4.2%	4.2%	329	20	2%	0%
101 - 1,000 shares	284	6.3%	3.9%	1,205	1	4%	1%
1,001 - 10,000 shares	113	2.5%	14.2%	25,278	1,583	8%	6%
10,001 - 100,000 shares	84	1.9%	45.2%	407,615	214,899	15%	15%
> 100,000 shares	7	0.2%	28.6%	2,199,927	3,093,142	12%	11%
Total	4,532		32.5%				

Nasdaq-listed LULD halts Jan-Aug 2015, relationship between cross size and activity within 5 minutes of re-open (Aug 24 only)							
			Percent of cases that halt	Volume within 5 minutes		Price range within 5 minutes	
Cross Size Group	Count of halts	Pct	again within 5 minutes	Mean	Median	Mean	Median
0 Shares	62	32.0%	30.6%	429	0	2%	0%
1 - 100 shares	9	4.6%	11.1%	82	1	0%	0%
101 - 1,000 shares	42	21.6%	11.9%	2,013	200	8%	8%
1,001 - 10,000 shares	55	28.4%	32.7%	12,529	4,690	8%	7%
10,001 - 100,000 shares	21	10.8%	61.9%	117,253	15,536	19%	12%
> 100,000 shares	5	2.6%	60.0%	658,883	349,766	10%	6%
Total	194		30.4%				

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

The behavior of stocks that have larger reopening crosses (*i.e.*, above 1,000 shares and especially above 10,000 shares) suggests news driven volatility. In particular, securities with a trade size of more than 1000 shares in the reopening cross were much more likely to halt again in the next five minutes than securities with trade sizes of 1000 shares or less in the reopening cross. These securities are more likely to trade actively and experience greater price variation in the subsequent five minutes and, therefore, are more likely to pause again within the next five minutes, reflecting continued price uncertainty. However, reopening crosses with more than 1000 shares are less common, making up about 6% of pauses.

i. <u>Market Conditions</u>

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

Table 2: Relative Quoted Spreads around LULD Trading Pauses

Relative quoted spreads around halts, Nasdaq-listed, Jan 2 - Aug 31, 2015									
	Re-opening	Average spread in BP				Median spread in BP			
Tier	cross	At halt	At re-open	After 1 minute	After 15 minutes	At halt	At re-open	After 1 minute	After 15 minutes
1	Yes	63	181	72	13	74	334	112	22
1	No	853	2,136	1,825	777	595	1,963	484	88
2	Yes	433	634	365	312	464	1,051	1,052	786
2	No	8,719	4,898	3,832	2,659	3,120	3,207	1,611	937
Relative quoted spreads around halts, Nasdaq-listed, Jan 2 - Aug 31, 2015; August 24th removed									
	Re-opening	Average spread in BP				Median spread in BP			
Tier	cross	At halt	At re-open	After 1 minute	After 15 minutes	At halt	At re-open	After 1 minute	After 15 minutes
1	Yes	57	127	125	11	2	34	51	16
1	No	853	2,136	1,825	777	595	1,963	484	88
2	Yes	329	454	316	313	437	1,035	1,024	815
2	No	8,889	4,966	3,898	2,698	3,165	3,207	1,601	932
Relative quoted spreads around halts, Nasdaq-listed, August 24, 2015 only									
	Re-opening	Average spread in BP				Median spread in BP			
Tier	cross	At halt	At re-open	After 1 minute	After 15 minutes	At halt	At re-open	After 1 minute	After 15 minutes
1	Yes	217	817	315	114	160	462	197	27
1	No	-	-	-	-	-	-	-	-
2	Yes	1,669	1,991	1,863	1,185	706	1,271	1,241	543
2	No	7,268	7,610	3,331	2,769	2,005	3,220	1,654	1,417
Note: Means in these tables are weighted across stocks by average daily volume.									

Nasdaq also looked at how prices converge toward the national best bid-ask ("NBBO") midpoint 15 minutes after a reopening (Table 3). For example, Tier 1 stocks that have a reopening cross (not including August 24th) approached the benchmark relatively smoothly. The reopening cross averaged within 4% of the benchmark and the NBBO midpoint a minute after reopening was within 2% of the benchmark.

Tier 1 stocks that did not have a reopening cross and Tier 2 stocks approach the benchmark more erratically. As a sign of the sustained lack of liquidity in many of these situations, the BAM often remains far from where it will be 15 minutes after the reopen. The reopening cross price, when it occurs, is on average much closer to the benchmark than the BAM even a minute after the reopen.

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

Bid-ask midpoints and re-opening price compared, Nasdaq-listed, Jan 1 - Aug 31, 2015									
	Re-	Mean difference from BAM 15 minutes after halt (basis points)				Median difference from BAM 15 minutes after halt (basis points)			
Tier	opening cross	BAM at time of halt	Re-opening cross	BAM at re-opening	BAM 1 minute after re-opening	BAM at time of halt	Re-opening cross	BAM at re-opening	BAM 1 minute after re-opening
1	Yes	876	657	631	528	841	583	635	504
1	No	506		751	470	340		774	72
2	Yes	145,455	1,653	32,080	3,775	586	613	393	161
2	No	24,586,581		24,843,028	405,303	2,080		797	34
Bid-ask midpoints and re-opening price compared, Nasdaq-listed, Jan 1 - Aug 31, 2015; August 24th removed									
	Re-	Mean difference from BAM 15 minutes after halt (basis points)				Median difference from BAM 15 minutes after halt (basis points)			
Tier	opening cross	BAM at time of halt	Re-opening cross	BAM at re-opening	BAM 1 minute after re-opening	BAM at time of halt	Re-opening cross	BAM at re-opening	BAM 1 minute after re-opening
1	Yes	465	355	332	187	310	311	215	153
1	No	506		751	470	340		774	72
2	Yes	163,859	1,624	35,997	4,079	545	555	354	134
2	No	25,166,311		25,429,359	414,856	2,107		797	32
Bid-ask midpoints and re-opening price compared, Nasdaq-listed, August 24, 2015 only									
	Re-	Mean difference from BAM 15 minutes after halt (basis points)				Median difference from BAM 15 minutes after halt (basis points)			
Tier	opening cross	BAM at time of halt	Re-opening cross	BAM at re-opening	BAM 1 minute after re-opening	BAM at time of halt	Re-opening cross	BAM at re-opening	BAM 1 minute after re-opening
1	Yes	1,366	1,084	1,096	915	1,257	801	872	747
1	No								
2	Yes	1,473	1,615	1,150	1,043	814	964	669	367
2	No	1,717,708		11,927	4,743	1,058		794	491
Note: Means in these tables are weighted across stocks by average daily volume.									

ii. Repeat Pauses

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

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

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

However, the data indicates that extending the duration of a Trading Pause would be unlikely to result in additional liquidity or the elimination of price instability and repeat pauses. First, 15 out of 55 Trading Pauses in Tier 1 Nasdaq-listed stocks occurred within five minutes of the opening cross, which is a very active price discovery process lasting longer than five minutes. If the opening cross of the day often cannot address all concerns regarding price volatility, the Participants believe it is unlikely that extending pause durations would significantly reduce volatility.

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

Table 4: Delayed Reopening Crosses

Outcome of delayed re-opening crosses in Nasdaq-listed stocks, Jan-Aug 2015						
Number of cases			58			
Number of cases with a re-opening cross			53			
Number of cases that halt again within 5 minutes			24			
Summary statistics of 58 cases:						
	Minimum	1st Quartile	Median	Mean	3rd Quartile	Max
Number of minutes delay	<1	1	1	5	4	38
Number of orders entered	0	5	14	47	29	831
Number of orders cancelled	0	2	11	30	21	795
Net number of orders entered	-7	0	3	16	10	221
Number of shares entered	0	924	4,167	41,330	18,150	860,600
Number of shares cancelled	0	448	2,010	12,310	6,906	214,000
Net number of shares entered	-9,010	-70	233	29,020	8,471	674,500
Size of cross	0	100	1,000	22,160	5,841	654,400

Note: The summary statistics for orders/shares entered, cancelled and net are independently calculated from the cases and therefore do not sum across rows.

Another course to address repeat Trading Pauses is to widen the Price Bands temporarily after reopening the stock. While this would reduce the number of repeat pauses, it works against the goal of containing volatility. A further alternative is to widen the Price Band on the recovery side, to allow the price to return to where it was before the previous pause without pausing again. The Participants find that these adjustments to Price Bands should be considered as part of future consideration of adjusting Price Bands to minimize volatility.

(b) NYSE-Listed Securities

Table 5: NYSE Reopenings H1:2015

Table 5a: NYSE Reopenings H1 2015										Medians: Spread Change versus pre-Halt		
Listing Exchange	Tier	Auction	Count	Mdn. Shares	Mdn. Sprd. Prior	Mdn. Sprd. Reopen	Mdn. Sprd. 1-min	Mdn. Sprd. 15 min	Mdn. Time to Reopen	At Reopen	Post 1-min	Post 15-min
NYSE	1	Y	19	57,488	$0.010	$0.070	$0.080	$0.030	05:18	$0.060	$0.070	$0.020
NYSE	1	N	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NYSE	2	Y	17	7,500	$0.020	$0.090	$0.090	$0.060	05:19	$0.070	$0.070	$0.040
NYSE	2	N	34	N/A	$8.910	$1.190	$0.790	$0.350	05:14	-$7.720	-$8.120	-$8.560
Table 5b: NYSE Reopenings August 24, 2015										**Spread Change versus pre-Halt**		
Listing Exchange	Tier	Auction	Count	Mdn. Shares	Mdn. Sprd. Prior	Mdn. Sprd. Reopen	Mdn. Sprd. 1-min	Mdn. Sprd. 15 min	Mdn. Time to Reopen	At Reopen	Post 1-min	Post 15-min
NYSE	1	Y	28	4,950	$0.110	$0.650	$0.230	$0.055	06:07	$0.540	$0.120	-$0.055
NYSE	1	N	1	N/A	$0.110	$0.030	$0.050	$0.020	05:35	-$0.080	-$0.060	-$0.090
NYSE	2	Y	31	1,129	$0.530	$0.660	$0.220	$0.170	06:11	$0.130	-$0.310	-$0.360
NYSE	2	N	18	N/A	$3.645	$0.955	$0.795	$0.450	05:05	-$2.690	-$2.850	-$3.195

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

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

On August 24, 2015, 28 of the 29 pauses in Tier 1 NYSE-listed securities reopened with an auction. This included NYSE opening auctions that followed a Trading Pause at 9:35 a.m.[18] which NYSE categorizes as a regular open, but is a reopening from a Plan perspective. Some of these opens occurred following a subsequent order imbalance halt. An analysis of the pauses in Tier 1 securities would be unhelpful because it is not possible to obtain statistical significance comparing the market quality of the 28 securities that executed a reopening auction to the one security that did not.

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

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

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

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

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

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

high-priced Tier 2 securities partially skew the results, as well as several preferred stocks. If such securities are excluded, the median pre-pause spread in the remaining nine securities was $0.76, while the reopening, one-minute and 15-minute spreads were $0.80, $0.65 and $0.54, respectively. This data shows continued tightening following the reopening, and the Participants reiterate that extending the time to reopen would be unlikely to significantly alter the results.

NYSE Arca-Listed Securities

Table 7: NYSE Arca Reopenings H1:2015

Table 7a NYSE Arca Reopenings: H1 2015

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

Table 7b NYSE Arca Reopenings: August 24, 2015

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

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

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

reopen with an auction saw spreads tighten more quickly than those Tier 2 ETPs that did reopen with an auction.

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

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

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

On August 24, 2015, median spreads following reopening for NYSE Arca-listed ETPs that reopened with an auction continued to be wider than the median pre-pause spreads, even 15 minutes after those paused securities had reopened. However, it should be noted that some

securities had more than one pause during the 15-minute period after reopening following the initial pause, which may have impacted median spread data at the post 15-minute mark.

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

Additional Data -- NYSE MKT and BATS

During the first half of 2015 and on August 24, 2015, neither NYSE MKT-listed nor BATS-listed securities experienced a large sample of pauses, making any conclusions based on data from these markets of limited value. NYSE MKT did not have pauses in any Tier 1 securities[19] during the first half of 2015, and averaged only two pauses per month in Tier 2 securities (for a total of 13 pauses, seven of which reopened with auctions). On August 24, 2015, four NYSE MKT securities experienced pauses, with three securities reopening with an auction. BATS-listed securities were paused seven times in the first half of 2015, five of which occurred immediately after the LULD bands narrowed at 9:45 a.m. On August 24, 2015, BATS-listed ETPs were paused three times.

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

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

Table 8: NYSE MKT Reopenings H1:2015

Table 8a: NYSE MKT Reopenings: H1 2015										Medians: Spread Change versus pre-Halt		
Listing Exchange	Tier	Auction	Count	Mdn. Shares	Mdn. Sprd. Prior	Mdn. Sprd. Reopen	Mdn. Sprd. 1-min	Mdn. Sprd. 15 min	Mdn. Time to Reopen	At Reopen	Post 1-min	Post 15-min
NYSE MKT	1	Y	0	N/A	N/A	N/A	N/A	N/A	N/A			
NYSE MKT	1	N	0	N/A	N/A	N/A	N/A	N/A	N/A			
NYSE MKT	2	Y	7	2,100	$0.050	$0.030	$0.100	$0.070	05:13	-$0.020	$0.050	$0.020
NYSE MKT	2	N	6	N/A	$0.245	$0.325	$0.330	$0.220	05:10	$0.080	$0.085	-$0.025
Table 8b: NYSE MKT Reopenings: August 24, 2015										**Spread Change versus pre-Halt**		
Listing Exchange	Tier	Auction	Count	Mdn. Shares	Mdn. Sprd. Prior	Mdn. Sprd. Reopen	Mdn. Sprd. 1-min	Mdn. Sprd. 15 min	Mdn. Time to Reopen	At Reopen	Post 1-min	Post 15-min
NYSE MKT	1	Y	0	N/A	N/A	N/A	N/A	N/A	N/A			
NYSE MKT	1	N	0	N/A	N/A	N/A	N/A	N/A	N/A			
NYSE MKT	2	Y	3	1,350	$0.560	$0.380	$0.400	$0.250	05:33	-$0.180	-$0.160	-$0.310
NYSE MKT	2	N	1	N/A	$0.630	$0.900	$0.200	$0.200	05:18	$0.270	-$0.430	-$0.430

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

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

The Primary Listing Exchange may wish to consider extending the reopening auction process following a pause beyond the initial five minutes on a more frequent basis and, in rare

cases, may wish to consider calling a non-regulatory Imbalance Halt if the Primary Listing Exchange determines that reopening would add to volatility. [20]

(3) Modification to Initial Reference Price Methodology

The Plan provides that the first Reference Price for a trading day is the Opening Price on the Primary Listing Exchange if such Opening Price occurs less than five minutes after the start of Regular Trading Hours. However, if the Primary Listing Exchange opens with quotations, the first Reference Price for a trading day is the BAM. [21]

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

The Participants found that the use of the Primary Listing Exchange's BAM often produced a skewed initial Reference Price when trading interest is extremely thin or non-existent, rendering a security illiquid. This scenario occurs when the opening bid-ask quotes are wide or skewed and not indicative of the current market for the security. Back-testing analysis

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

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

[22] See Approval Order, supra note 1.

showed that nearly all of these Trading Pauses likely would not have occurred if the first Reference Price for the day was determined using the Primary Listing Exchange's previous closing price instead of the BAM because the BAM of the first quote may not represent fair value in less liquid securities. Therefore, the Participants recommend revising the current Plan methodology for determining the initial Reference Price to a methodology that uses the closing price of the security on the Primary Listing Exchange on the previous trading day, and if no such closing price exists, the last sale on the Primary Listing Exchange reported to the Processor.

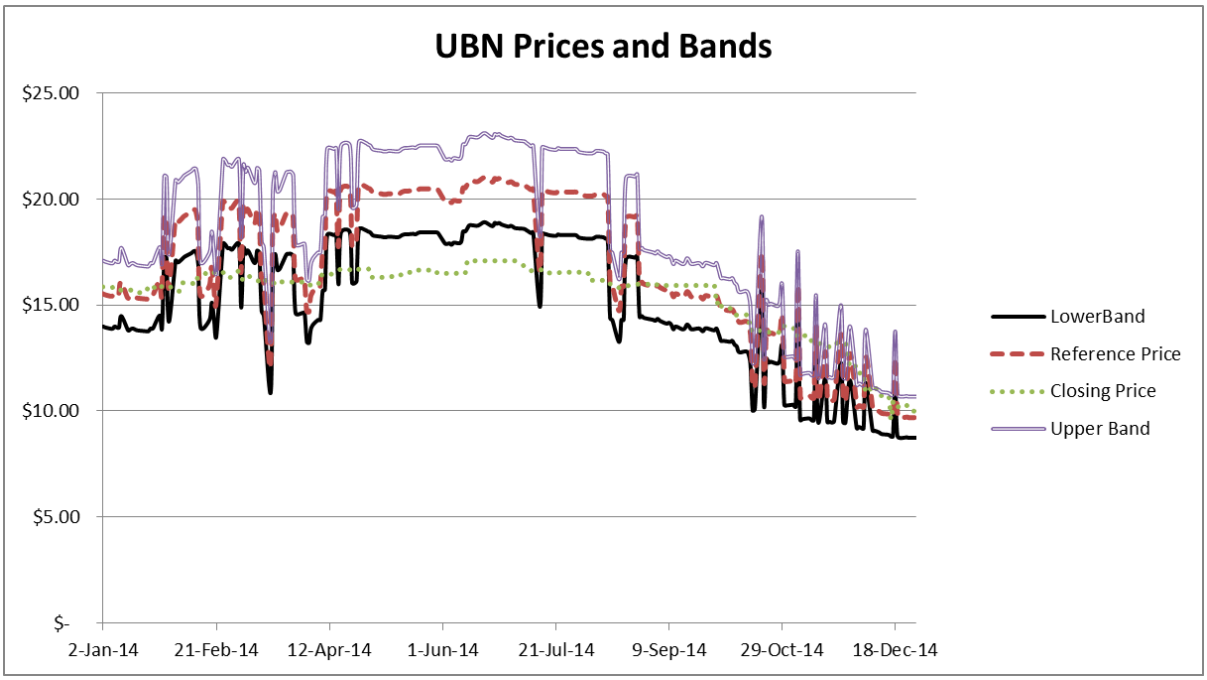
Although market makers do not have obligations prior to a security opening, they will often bracket the market around what they believe to be the fair value of a security. For example, the market maker may determine that a security is likely to open around $10 and would, before the market opens, enter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

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

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

graph (Chart 1).[23] As an example of the BAM deviating from the Reference Price, Professor James J. Angel studied, the UBS ETRACS CMCI Energy Total Return ETN (UBN). Chart 1 below shows the Upper and Lower Price Bands, with the reference and closing price of the day to display the imbalance between the intraday bands and the closing price. For an extended duration in 2014, the opening Lower Price Band was frequently above the security's closing price. The ETN experienced 111 Trading Pauses in 2014. The majority of the pauses occurred at 9:45 a.m., just as the Price Bands narrowed from double-wide (20%) to single-wide (10%).

Chart 1: Deviation of BAM from Reference Price



The analysis performed in the Angel Report also directly supports the Participants' observations regarding the need to adjust the procedure for determining an initial Reference Price when there is no trading interest in the opening auction.[24] In such cases, the Participants

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

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

believe the previous closing price generally is a better indication of the current market than a Reference Price based on the BAM. Participants also note that a small number of securities are responsible for a vast majority of Limit States and Straddle States. For example, from the inception of LULD in April 2013 through December 31, 2014, there were approximately two million Limit States, 4.8 million Straddle States and 8,500 Trading Pauses. Approximately 91% of the two million Limit States are accounted for by 50 securities that relied on a Reference Price that was calculated based on the BAM. Further, these securities also were responsible for as many as 81% of Straddle States and 30% of Trading Pauses.[25]

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

In addition to the analysis contained in the Angel Report, the Participants performed the following data analysis to support the proposed recommendations intended to address the current use of the BAM as the first Reference Price for illiquid securities. Back-testing of securities listed on Nasdaq and NYSE trading venues has shown that, in stocks that have no opening cross, the previous closing price results in fewer Trading Pauses than the BAM.[26]

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

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

(a) Nasdaq-Listed Securities

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

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

Table 9: Nasdaq Trading Pauses with No Previous Trade

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

The argument against using the previous closing price is that the BAM is determined in real time and reflects the latest information. This is true when there is trading interest in a stock, but demonstrably not true in the thousands of cases each year when there is no trading interest and quotes are wide. Furthermore, when there is trading interest, stocks are more likely to have an opening cross, which obviates the need to use either the previous closing price or BAM in calculating the initial Reference Price. For example, during 2015 through August 23,

approximately 550 Nasdaq-listed stocks opened without an opening cross trade, but on August 24, 2015 there were only 250 such stocks.

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

Participants used results for 182 trading days in all Nasdaq-listed LULD-eligible securities that did not have an opening cross (which averaged 526 stocks per day) from January to September 2015. For each stock and trading day, the test lasted from 9:30 a.m. until there was either a trade or a pause in that stock. The Participants tested for Limit States using two alternative Reference Prices: (i) the Reference Price based on the current Plan parameters; and (ii) the Reference Price based on the Primary Listing Exchange previous close. For this approach there were four possible comparative outcomes: (i) both resulted in a Limit State and Trading Pause; (ii) neither resulted in a Limit State or Trading Pause; (iii) the current bands resulted in a Limit State and Trading Pause, but the previous close bands did not; and (iv) the previous close bands resulted in a Limit State and Trading Pause, but the current bands did not. Generally, the Participants expected to find that (i) and (ii) cases would be indicative of both Reference Prices having worked equally well and that excessive (iii) and (iv) cases would be indicative of poorly functioning Reference Prices under one alternative or the other.

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

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

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

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

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

(b) NYSE-Listed Securities

The methodology that NYSE used for its analyses tested the NBBO first and continued to use the BAM as the initial Reference Price if the width of the quote was less than or equal to one-half of the applicable Price Band width, but if outside of such parameters, the previous closing price was instead utilized (the "NYSE Methodology"). The differences in results between the methodology applied by Nasdaq in subsection (a) above (*i.e.*, using the previous closing price only rather than checking the mid-quote first) and the NYSE Methodology were not substantial and are discussed further in subsection (d) below.

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

NYSE Arca Results

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

As shown in Table 11, below, during the first half of 2015, NYSE Arca had a daily average of 14 Tier 1 securities and 432 Tier 2 securities that opened on a quote. Of these, two

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

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

Participants also reviewed the simulation data (see Table 11) to determine if any securities that actually experienced a pause using the current methodology would have experienced a pause earlier in the same trading day if the NYSE Methodology had been applied. Participants found that there was an average of one such pause per day that would have occurred for Tier 2 securities and there were no such occurrences for Tier 1 securities. However, the Participants do not consider this to be an issue, as these securities would have been subject to pauses already; the NYSE Methodology merely resulted in a pause occurring earlier in the trading session.

Table 11: NYSE Arca Open Reference Price Analysis

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

NYSE Results

Application of the NYSE Methodology during the first half of 2015 for NYSE-listed securities would have prevented a total of 31 pauses, all in Tier 2 securities; on August 24, 2015, seven pauses would have been prevented (see Table 12). Participants estimate that a maximum of three pauses would have been caused by the NYSE Methodology that would not have occurred using the current methodology, all in Tier 2 securities.

Table 12: NYSE Open Reference Price Analysis

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

NYSE MKT Results

Application of the NYSE Methodology had no substantive impact on NYSE MKT-listed securities. For the first half of 2015, two pauses would have been avoided, and there would have been no pauses caused by the NYSE Methodology that would otherwise not have occurred using the current methodology. There would have been no impact on pauses on August 24, 2015 (Table 13).

Table 13: NYSE MKT Open Reference Price Analysis

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

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

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

(c) Participants' Conclusion on First Reference Price

The Participants find that the vast majority of Trading Pauses occur when the current Plan methodology results in inappropriate Reference Prices. This occurs most often in low

volume securities when there is no opening cross on the Primary Listing Exchange and the NBBO is wide or far from most recent last sale price of the security.[28]

The Participants explored and back-tested multiple options for fixing the problem and recommend that the Plan be amended to change the first Reference Price when there is no opening trade from the BAM to the Primary Listing Exchange previous closing price.

The Participants believe that the proposed amendments are consistent with Section 11A of the Exchange Act and Rule 608, of Regulation NMS thereunder,[29] which authorizes the Participants to act jointly in preparing, filing and implementing national market system plans.

(d) Alternative Approaches to establishing the First Reference Price

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

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

In 2013 the Participants considered utilizing the mid-point of the prior day's last NBBO and the prior day's last LULD Reference Price to determine the open reference price. The Participants found that, while these simulations also resulted in a reduction of pauses, such alternative methods were not as effective in reducing the number of pauses as using the most recent last sale eligible execution on the Primary Listing Exchange.

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

[29] 17 CFR 242.608.

The results of those analyses are shown in Table 14, above, and Table 15, below. Results in Table 14 reflect those results for securities on NYSE and NYSE MKT that were subject to LULD at the time of the analyses. Results in Table 15 include those for the NYSE Arca-listed securities that were subject to LULD at the time of the analyses. These tables compare the number of securities subject to LULD that had been paused before a trade had been executed with the estimated number of securities that would have been paused if the following methods had instead been implemented:

a. Most recent prior day trade;

b. Prior day's final LULD Reference Price;

c. Final regular hours NBBO mid-point; and

d. First NBBO mid-point.

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

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

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

ii. Delay the establishing of the Open Reference Price

The Participants also considered a delay in establishing the open Reference Price until 9:32 a.m., but noted that such a delay would result in a period during which there was no LULD protection after the Primary Listing Exchange had already opened the security (Table 16).

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

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

Also, to review the feasibility of using such a delay, an analysis of spread changes in NYSE Arca ETPs between 9:30 a.m. and 9:32 a.m. was conducted for October 2013. This analysis used the percentage of NYSE Arca securities in the first half of 2015 that would have employed the most recent last sale eligible execution as the initial Reference Price, which was

7.94%,[30] to establish the appropriate threshold to use in determining which spreads should be included in the analysis. The analysis applied 7.94% to the percentile rank of spreads at the open and at 9:32 a.m. (*i.e.*, 100% - 7.94% = 92.06 percentile). As shown in Table 16 above, securities in this percentile typically had a spread greater than 34% at the open, and the spread still remained relatively wide, at 5.84%, at 9:32 a.m. The risk posed by leaving securities without LULD protection for two minutes in addition to the risk that the mid-quotes may still be skewed two minutes after opening led to the Participants' determination that delaying until 9:32 a.m. to determine the open Reference Price was not a viable alternative.

iii. Pause trading until the NBBO meets some standard of quality

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

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

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

iv. Test the Opening NBBO

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

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

v. Alternatives external to the LULD Plan

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

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

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

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

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

All of these rules are interrelated, and any changes to the Plan may also affect the impact of other rules on the market. This section discusses alternatives Participants considered to

promote liquidity provision and rule changes, in addition to the Plan, that the Participants believe could promote market stability.

(a) Market Maker Quoting Standards

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

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

Furthermore, current market maker obligations generally require market makers to quote a designated percentage away from the NBBO or the last reported sale, but are not applicable until the stock has opened for trading. Thus, simply narrowing quoting obligations would be

insufficient where there are no price references off of which to measure, and would require a new structure to be effective prior to or upon the opening.

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

(b) Market Orders and Stop Market Orders

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

(c) Additional Alternatives

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

B. Governing or Constituent Documents

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

C. Implementation of Plan

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

D. Development and Implementation Phases

The Plan was initially implemented as a one-year pilot program in two Phases, consistent with Section VIII of the Plan: Phase I of Plan implementation began on April 8, 2013 and was completed on May 3, 2013. Implementation of Phase II of the Plan began on August 5, 2013 and was completed on February 24, 2014. Pursuant to the Ninth Amendment, the Participants extended the Pilot until April 22, 2016.[31] Pursuant to the instant proposal, the Plan would be extended until April 21, 2017with the proposed modifications described herein. The amendments would be implemented three months after SEC approval of Amendment No. 10.

E. Analysis of Impact on Competition

The proposed amendment to the Plan does not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Exchange Act. The Participants do not believe that the proposed Plan introduces terms that are unreasonably discriminatory for the purposes of Section 11A(c)(1)(D) of the Exchange Act.

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[31] See supra note 1.

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

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

G. Approval of Amendment of the Plan

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

H. Terms and Conditions of Access

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

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

Not applicable.

J. Method and Frequency of Processor Evaluation

Not applicable.

K. Dispute Resolution

Section III(C) of the Plan provides that each Participant shall designate an individual to represent the Participant as a member of an Operating Committee. No later than the initial date of the Plan, the Operating Committee shall designate one member of the Operating Committee to act as the Chair of the Operating Committee. Any recommendation for an amendment to the Plan from the Operating Committee that receives an affirmative vote of at least two-thirds of the

Participants, but is less than unanimous, shall be submitted to the Commission as a request for an amendment to the Plan initiated by the Commission under Rule 608.

On February17, 2016, the Operating Committee, duly constituted and chaired by Mr. Paul Roland, Nasdaq, met and voted unanimously to amend the Plan as set forth herein in accordance with Section III(C) of the Plan. The Plan Advisory Committee was notified in connection with the Tenth Amendment and was in favor.

III. Solicitation of Comments

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

Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an 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 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 Plan that are filed with the Commission, and all written communications relating to the Plan between the Commission and

any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the Participants' principal offices. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number 4-631 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

By the Commission.

Robert W. Errett
Deputy Secretary

Appendix A

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

PLAN TO ADDRESS EXTRAORDINARY MARKET VOLATILITY

SUBMITTED TO

THE SECURITIES AND EXCHANGE COMMISSION

PURSUANT TO RULE 608 OF REGULATION NMS

UNDER THE

SECURITIES EXCHANGE ACT OF 1934

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Preamble

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

I. Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

II. Parties

(A) List of Parties

The parties to the Plan are as follows:

(1) BATS Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214

(2) BATS Y-Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214

(3) Chicago Stock Exchange, Inc.
440 South LaSalle Street
Chicago, Illinois 60605

(4) EDGA Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214

(5) EDGX Exchange, Inc.
8050 Marshall Drive
Lenexa, Kansas 66214

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

(7) NASDAQ OMX BX, Inc.
One Liberty Plaza
New York, New York 10006

(8) NASDAQ OMX PHLX LLC
1900 Market Street
Philadelphia, Pennsylvania 19103

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

(10) National Stock Exchange, Inc.
101 Hudson, Suite 1200
Jersey City, NJ 07302

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

(12) NYSE MKT LLC
11 Wall Street
New York, New York 10005

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

(B) Compliance Undertaking

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

(C) New Participants

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

(D) Advisory Committee

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

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

(A) Advisory Committee Selections. By affirmative vote of a majority of the Participants, the Participants shall select at least one representatives from each of the following categories to be members of the Advisory Committee: (1) a broker-dealer with a substantial retail investor customer base; (2) a broker-dealer with a substantial institutional investor customer base; (3) an alternative trading system; (4) a broker-dealer that primarily engages in trading for its own account; and (5) an investor.

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

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

III. Amendments to Plan

(A) General Amendments

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

(B) New Participants

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

(C) Operating Committee

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

(2) The Operating Committee shall monitor the procedures established pursuant to this Plan and advise the Participants with respect to any deficiencies, problems, or recommendations as the Operating Committee may deem appropriate. The Operating Committee shall establish specifications and procedures for the implementation and operation of the Plan that are consistent with the provisions of this Plan and the Appendixes thereto. With respect to matters in this paragraph, Operating Committee decisions shall be approved by a simple majority vote.

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

IV. Trading Center Policies and Procedures

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

V. Price Bands

(A) Calculation and Dissemination of Price Bands

(1) The Processor for each NMS stock shall calculate and disseminate to the public a Lower Price Band and an Upper Price Band during Regular Trading Hours for such NMS Stock. The Price Bands shall be based on a Reference Price for each NMS Stock that equals the arithmetic mean price of Eligible Reported Transactions for the NMS stock over the immediately preceding five-minute period (except for periods following openings and reopenings, which are addressed below). If no Eligible Reported Transactions for the NMS Stock have occurred over the immediately preceding five-minute period, the previous Reference Price shall remain in effect. The Price Bands for an NMS Stock shall be calculated by applying the Percentage Parameter for such NMS Stock to the Reference Price, with the Lower Price Band being a Percentage Parameter below the Reference Price, and the Upper Price Band being a Percentage Parameter above the Reference Price. The Price Bands shall be calculated during Regular Trading Hours. Between 9:30 a.m. and 9:45 a.m. ET, and 3:35 p.m. and 4:00 p.m. ET, or in the case of an early scheduled close, during the last 25 minutes of trading before the early scheduled close, the Price Bands shall be calculated by applying double the Percentage Parameters set forth in Appendix A. If a Reopening Price does not occur within ten minutes after the beginning of a Trading Pause, the Price Band, for the first 30 seconds following the reopening after

that Trading Pause, shall be calculated by applying triple the Percentage Parameters set forth in Appendix A.

(2) The Processor shall calculate a Pro-Forma Reference Price on a continuous basis during Regular Trading Hours, as specified in Section V(A)(1) of the Plan. If a Pro-Forma Reference Price has not moved by 1% or more from the Reference Price currently in effect, no new Price Bands shall be disseminated, and the current Reference Price shall remain the effective Reference Price. When the Pro-Forma Reference Price has moved by 1% or more from the Reference Price currently in effect, the Pro-Forma Reference Price shall become the Reference Price, and the Processor shall disseminate new Price Bands based on the new Reference Price; provided, however, that each new Reference Price shall remain in effect for at least 30 seconds.

(B) Openings

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

(2) If the Opening Price on the Primary Listing Exchange in an NMS Stock does not occur within five minutes after the start of Regular Trading Hours, the first Reference Price for a trading day shall be the arithmetic mean price of Eligible Reported Transactions for the NMS Stock over the

preceding five minute time period, and subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

(C) Reopenings

(1) Following a Trading Pause in an NMS Stock, and if the Primary Listing Exchange has not declared a Regulatory Halt, the next Reference Price shall be the Reopening Price on the Primary Listing Exchange if such Reopening Price occurs within ten minutes after the beginning of the Trading Pause, and subsequent Reference Prices shall be determined in the manner prescribed for normal openings, as specified in Section V(B)(1) of the Plan. If such Reopening Price does not occur within ten minutes after the beginning of the Trading Pause, the first Reference Price following the Trading Pause shall be equal to the last effective Reference Price before the Trading Pause. Subsequent Reference Prices shall be calculated as specified in Section V(A) of the Plan.

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

VI. Limit Up-Limit Down Requirements

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

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

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

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

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

(B) Entering and Exiting a Limit State

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

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

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

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

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

VII. Trading Pauses

(A) Declaration of Trading Pauses

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

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

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

(B) Reopening of Trading During Regular Trading Hours

(1) Five minutes after declaring a Trading Pause for an NMS Stock, and if the Primary Listing Exchange has not declared a Regulatory Halt, the Primary Listing Exchange shall attempt to reopen trading using its established reopening procedures. The Trading Pause shall end when the Primary Listing Exchange reports a Reopening Price.

(2) The Primary Listing Exchange shall notify the Processor if it is unable to reopen trading in an NMS Stock for any reason other than a significant order imbalance and if it has not declared a Regulatory Halt. The Processor shall disseminate this information to the public, and all trading centers may begin trading the NMS Stock at this time.

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

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

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

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

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

VIII. Implementation

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

(A) Phase I

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

(2) Three months after the initial date of Plan operations, or such earlier date as may be announced by the Processor with at least 30 days notice, the Plan shall fully apply to all Tier 1 NMS Stocks identified in Appendix A of the Plan.

(3) During Phase I, the first Price Bands for a trading day shall be calculated and disseminated 15 minutes after the start of Regular Trading Hours as specified in Section (V)(A) of the

Plan. No Price Bands shall be calculated and disseminated and therefore trading shall not enter a Limit State less than 30 minutes before the end of Regular Trading Hours.

(B) Phase II – Full Implementation

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

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

(C) Pilot

The Plan shall be implemented on a pilot basis set to end on April 2*1*[2], 201*7*[6].

IX. Withdrawal from Plan

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

X. Counterparts and Signatures

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

IN WITNESS THEREOF, this Plan has been executed as of the [31st] *18th* day of [July] *February* 2016[5] by each of the parties hereto.

BATS EXCHANGE, INC.

BY:_____

BATS Y-EXCHANGE, INC.

BY:_____

CHICAGO STOCK EXCHANGE, INC.

BY:_____

EDGA EXCHANGE, INC.

BY:_____

EDGX EXCHANGE, INC.

BY:_____

FINANCIAL INDUSTRY REGULATORY AUTHORITY, INC.

BY:_____

NASDAQ OMX BX, INC.

BY:_____

NASDAQ OMX PHLX LLC

BY:_____

THE NASDAQ STOCK MARKET LLC

BY:_____

NATIONAL STOCK EXCHANGE, INC.

BY:_____

NEW YORK STOCK EXCHANGE LLC

BY:_____

NYSE MKT 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") [listed on] *identified as* Schedule 1 to this Appendix. Schedule 1 to the Appendix will be reviewed and updated semi-annually based on the fiscal year by the Primary Listing Exchange to add ETPs that meet the criteria, or delete ETPs that are no longer eligible. To determine eligibility for an ETP to be included as a Tier 1 NMS Stock, all ETPs across multiple asset classes and issuers, including domestic equity, international equity, fixed income, currency, and commodities and futures will be identified. Leveraged ETPs will be excluded and the list will be sorted by notional consolidated average daily volume ("CADV"). The period used to measure CADV will be from the first day of the previous fiscal half year up until one week before the beginning of the next fiscal half year. Daily volumes will be multiplied by closing prices and then averaged over the period. ETPs, including inverse ETPs, that trade over $2,000,000 CADV will be eligible to be included as a Tier 1 NMS Stock. The semi-annual updates to Schedule 1 do not require an amendment to the Plan. The Primary Listing Exchanges will maintain the updated Schedule 1 on their respective 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 4, 2016)

Ticker	ETP Name	Exchange
AAXJ	iShares MSCI All Country Asia ex Japan ETF	NASDAQ
ACWI	iShares MSCI ACWI ETF	NASDAQ
ACWV	iShares MSCI All Country World Minimum Volatility ETF	NYSE Arca
ACWX	iShares MSCI ACWI ex US ETF	NASDAQ
AGG	iShares Core U.S. Aggregate Bond ETF	NYSE Arca
AGZ	iShares Agency Bond ETF	NYSE Arca
AMJ	JPMorgan Alerian MLP Index ETN	NYSE Arca
AMLP	Alerian MLP ETF	NYSE Arca
AMU	ETRACS Alerian MLP Index ETN	NYSE Arca
AOA	iShares Core Aggressive Allocation ETF	NYSE Arca
AOK	iShares Core Conservative Allocation ETF	NYSE Arca
AOM	iShares Core Moderate Allocation ETF	NYSE Arca
AOR	iShares Core Growth Allocation ETF	NYSE Arca
ASHR	Deutsche X-trackers Harvest CSI 300 China A-Shares ETF	NYSE Arca
ASHS	Deutsche X-trackers Harvest CSI 500 China A-Shares ETF	NYSE Arca
ATMP	Barclays ETN+ Select MLP ETNs	NYSE Arca
BAB	PowerShares Build America Bond Portfolio	NYSE Arca
BBH	Market Vectors Biotech ETF	NYSE Arca
BIL	SPDR Barclays 1-3 Month T-Bill	NYSE Arca
BIV	Vanguard Intermediate-Term Bond ETF	NYSE Arca
BKLN	PowerShares Senior Loan Portfolio	NYSE Arca
BLV	Vanguard Long-Term Bond ETF	NYSE Arca
BND	Vanguard Total Bond Market ETF	NYSE Arca
BNDS	SPDR Barclays Aggregate Bond ETF	NYSE Arca
BNDX	Vanguard Total International Bond ETF	NASDAQ
BOND	PIMCO Total Return Active Exchange-Traded Fund	NYSE Arca
BSCG	Guggenheim BulletShares 2016 Corporate Bond ETF	NYSE Arca
BSCH	Guggenheim BulletShares 2017 Corporate Bond ETF	NYSE Arca
BSCI	Guggenheim BulletShares 2018 Corporate Bond ETF	NYSE Arca
BSCJ	Guggenheim BulletShares 2019 Corporate Bond ETF	NYSE Arca
BSCK	Guggenheim BulletShares 2020 Corporate Bond ETF	NYSE Arca
BSJF	Guggenheim BulletShares 2015 High Yield Corporate Bond ETF	NYSE Arca

Ticker	ETP Name	Exchange
BSJG	Guggenheim BulletShares 2016 High Yield Corporate Bond ETF	NYSE Arca
BSJH	Guggenheim BulletShares 2017 High Yield Corporate Bond ETF	NYSE Arca
BSJI	Guggenheim BulletShares 2018 High Yield Corporate Bond ETF	NYSE Arca
BSJJ	Guggenheim BulletShares 2019 High Yield Corporate Bond ETF	NYSE Arca
BSV	Vanguard Short-Term Bond ETF	NYSE Arca
BTAL	QuantShares US Market Neutral Anti-Beta Fund	NYSE Arca
BWX	SPDR Barclays International Treasury Bond ETF	NYSE Arca
CHAD	Direxion Daily CSI 300 China A Share Bear 1X Shares	NYSE Arca
CIU	iShares Intermediate Credit Bond ETF	NYSE Arca
CLY	iShares 10+ Year Credit Bond ETF	NYSE Arca
CMBS	iShares CMBS ETF	NYSE Arca
CMF	iShares California AMT-Free Muni Bond ETF	NYSE Arca
CNXT	Market Vectors China AMC SME-ChiNext ETF	NYSE Arca
CORP	PIMCO Investment Grade Corporate Bond Index Exchange-Traded Fund	NYSE Arca
CRED	iShares Core US Credit Bond ETF	NYSE Arca
CSD	Guggenheim Spin-Off ETF	NYSE Arca
CSJ	iShares 1-3 Year Credit Bond ETF	NYSE Arca
CSM	ProShares Large Cap Core Plus	BATS
CVY	Guggenheim Multi-Asset Income ETF	NYSE Arca
CWB	SPDR Barclays Convertible Securities ETF	NYSE Arca
CWI	SPDR MSCI ACWI ex-US ETF	NYSE Arca
DBA	PowerShares DB Agriculture Fund	NYSE Arca
DBC	PowerShares DB Commodity Index Tracking Fund	NYSE Arca
DBEF	Deutsche X-trackers MSCI EAFE Hedged Equity ETF	NYSE Arca
DBEM	Deutsche X-trackers MSCI Emerging Markets Hedged Equity ETF	NYSE Arca
DBEU	Deutsche X-trackers MSCI Europe Hedged Equity ETF	NYSE Arca
DBGR	Deutsche X-trackers MSCI Germany Hedged Equity ETF	NYSE Arca
DBJP	Deutsche X-trackers MSCI Japan Hedged Equity ETF	NYSE Arca
DBKO	Deutsche X-trackers MSCI South Korea Hedged Equity ETF	NYSE Arca
DBO	PowerShares DB Oil Fund	NYSE Arca

Ticker	ETP Name	Exchange
DEM	WisdomTree Emerging Markets High Dividend Fund	NYSE Arca
DES	WisdomTree SmallCap Dividend Fund	NYSE Arca
DFE	WisdomTree Europe SmallCap Dividend Fund	NYSE Arca
DFJ	WisdomTree Japan SmallCap Dividend Fund	NYSE Arca
DGRO	iShares Core Dividend Growth ETF	NYSE Arca
DGRW	WisdomTree U.S. Quality Dividend Growth Fund	NASDAQ
DGS	WisdomTree Emerging Markets SmallCap Dividend Fund	NYSE Arca
DHS	WisdomTree High Dividend Fund	NYSE Arca
DIA	SPDR Dow Jones Industrial Average ETF Trust	NYSE Arca
DJP	iPath Bloomberg Commodity Index Total Return ETN	NYSE Arca
DLN	WisdomTree LargeCap Dividend Fund	NYSE Arca
DLS	WisdomTree International SmallCap Dividend Fund	NYSE Arca
DOG	ProShares Short Dow30	NYSE Arca
DOL	WisdomTree International LargeCap Dividend Fund	NYSE Arca
DON	WisdomTree MidCap Dividend Fund	NYSE Arca
DSI	iShares MSCI KLD 400 Social ETF	NYSE Arca
DTD	WisdomTree Total Dividend Fund	NYSE Arca
DTN	WisdomTree Dividend Ex-Financials Fund	NYSE Arca
DVY	iShares Select Dividend ETF	NYSE Arca
DWAS	PowerShares DWA SmallCap Momentum Portfolio	NYSE Arca
DWM	WisdomTree International Equity Fund	NYSE Arca
DWTR	PowerShares DWA Tactical Sector Rotation Portfolio	NASDAQ
DWX	SPDR S&P International Dividend ETF	NYSE Arca
DXGE	WisdomTree Germany Hedged Equity Fund	NASDAQ
DXJ	WisdomTree Japan Hedged Equity Fund	NYSE Arca
DXJS	WisdomTree Japan Hedged SmallCap Equity Fund	NASDAQ
ECH	iShares MSCI Chile Capped ETF	NYSE Arca
ECON	EGShares Emerging Markets Consumer ETF	NYSE Arca
EDIV	SPDR S&P Emerging Markets Dividend ETF	NYSE Arca
EDV	Vanguard Extended Duration Treasury ETF	NYSE Arca
EELV	PowerShares S&P Emerging Markets Low Volatility Portfolio	NYSE Arca
EEM	iShares MSCI Emerging Markets ETF	NYSE Arca
EEMA	iShares MSCI Emerging Markets Asia ETF	NASDAQ
EEMS	iShares MSCI Emerging Markets Small-Cap ETF	NYSE Arca
EEMV	iShares MSCI Emerging Markets Minimum Volatility ETF/Dup	NYSE Arca
EFA	iShares MSCI EAFE ETF	NYSE Arca

Ticker	ETP Name	Exchange
EFAV	iShares MSCI EAFE Minimum Volatility ETF	NYSE Arca
EFG	iShares MSCI EAFE Growth ETF	NYSE Arca
EFV	iShares MSCI EAFE Value ETF	NYSE Arca
EFZ	ProShares Short MSCI EAFE	NYSE Arca
EIDO	iShares MSCI Indonesia ETF	NYSE Arca
EIRL	iShares MSCI Ireland Capped ETF	NYSE Arca
EIS	iShares MSCI Israel Capped ETF	NYSE Arca
ELD	WisdomTree Emerging Markets Local Debt Fund	NYSE Arca
EMB	iShares JP Morgan USD Emerging Markets Bond ETF	NYSE Arca
EMHY	iShares Emerging Markets High Yield Bond ETF	BATS
EMLC	Market Vectors J.P. Morgan EM Local Currency Bond ETF	NYSE Arca
EMLP	First Trust North American Energy Infrastructure Fund	NYSE Arca
EPHE	iShares MSCI Philippines ETF	NYSE Arca
EPI	WisdomTree India Earnings Fund	NYSE Arca
EPOL	iShares MSCI Poland Capped ETF	NYSE Arca
EPP	iShares MSCI Pacific ex Japan ETF	NYSE Arca
EPU	iShares MSCI All Peru Capped ETF	NYSE Arca
ERUS	iShares MSCI Russia Capped ETF	NYSE Arca
EUFN	iShares MSCI Europe Financials ETF	NASDAQ
EUM	ProShares Short MSCI Emerging Markets	NYSE Arca
EUSC	Wisdomtree Europe Hedged SmallCap Equity Fund	NYSE Arca
EWA	iShares MSCI Australia ETF	NYSE Arca
EWC	iShares MSCI Canada ETF	NYSE Arca
EWD	iShares MSCI Sweden ETF	NYSE Arca
EWG	iShares MSCI Germany ETF	NYSE Arca
EWH	iShares MSCI Hong Kong ETF	NYSE Arca
EWI	iShares MSCI Italy Capped ETF	NYSE Arca
EWJ	iShares MSCI Japan ETF	NYSE Arca
EWK	iShares MSCI Belgium Capped ETF	NYSE Arca
EWL	iShares MSCI Switzerland Capped ETF	NYSE Arca
EWM	iShares MSCI Malaysia ETF	NYSE Arca
EWN	iShares MSCI Netherlands ETF	NYSE Arca
EWP	iShares MSCI Spain Capped ETF	NYSE Arca
EWQ	iShares MSCI France ETF	NYSE Arca
EWS	iShares MSCI Singapore ETF	NYSE Arca
EWT	iShares MSCI Taiwan ETF	NYSE Arca
EWU	iShares MSCI United Kingdom ETF	NYSE Arca

Ticker	ETP Name	Exchange
EWW	iShares MSCI Mexico Capped ETF	NYSE Arca
EWX	SPDR S&P Emerging Markets SmallCap ETF	NYSE Arca
EWY	iShares MSCI South Korea Capped ETF	NYSE Arca
EWZ	iShares MSCI Brazil Capped ETF	NYSE Arca
EZA	iShares MSCI South Africa ETF	NYSE Arca
EZM	WisdomTree MidCap Earnings Fund	NYSE Arca
EZU	iShares MSCI Eurozone ETF	NYSE Arca
FBT	First Trust NYSE Arca Biotechnology Index Fund	NYSE Arca
FCG	First Trust ISE-Revere Natural Gas Index Fund	NYSE Arca
FDIS	Fidelity MSCI Consumer Discretionary Index ETF	NYSE Arca
FDL	First Trust Morningstar Dividend Leaders Index	NYSE Arca
FDN	First Trust Dow Jones Internet Index Fund	NYSE Arca
FEM	First Trust Emerging Markets AlphaDEX Fund	NASDAQ
FENY	Fidelity MSCI Energy Index ETF	NYSE Arca
FEP	First Trust Europe AlphaDEX Fund	NASDAQ
FEX	First Trust Large Cap Core AlphaDEX Fund	NYSE Arca
FEZ	SPDR EURO STOXX 50 ETF	NYSE Arca
FGD	First Trust DJ Global Select Dividend Index Fund	NYSE Arca
FHLC	Fidelity MSCI Health Care Index ETF	NYSE Arca
FIDU	Fidelity MSCI Industrials Index ETF	NYSE Arca
FJP	First Trust Japan AlphaDEX Fund	NASDAQ
FKU	First Trust United Kingdom AlphaDEX Fund	NASDAQ
FLOT	iShares Floating Rate Bond ETF	NYSE Arca
FLTB	Fidelity Ltd Term Bond ETF	NYSE Arca
FM	iShares MSCI Frontier 100 ETF JDR	NYSE Arca
FMAT	Fidelity MSCI Materials Index ETF	NYSE Arca
FNCL	Fidelity MSCI Financials Index ETF	NYSE Arca
FNDA	Schwab Fundamental U.S. Small Company Index	NYSE Arca
FNDC	Schwab Fundamental International Small Cap Company index	NYSE Arca
FNDE	Schwab Fundamental Emerging Markets Large Company Index ETF	NYSE Arca
FNDF	Schwab Fundamental International Large Company Index	NYSE Arca
FNDX	Schwab Fundamental U.S. Large Company Index	NYSE Arca
FNX	First Trust Mid Cap Core AlphaDEX Fund	NYSE Arca
FPE	First Trust Preferred Securities and Income ETF	NYSE Arca
FPX	First Trust US IPO Index Fund	NYSE Arca
FSTA	Fidelity MSCI Consumer Staples Index ETF	NYSE Arca
FTA	First Trust Large Cap Value AlphaDEX Fund	NYSE Arca

Ticker	ETP Name	Exchange
FTC	First Trust Large Cap Growth AlphaDEX Fund	NYSE Arca
FTEC	Fidelity MSCI Information Technology Index ETF	NYSE Arca
FTGC	First Trust Global Tactical Commodity Strategy Fund	NASDAQ
FTSL	First Trust Senior Loan ETF	NASDAQ
FTSM	First Trust Enhanced Short Maturity ETF	NASDAQ
FUTY	Fidelity MSCI Utilities Index ETF	NYSE Arca
FV	First Trust Dorsey Wright Focus 5 ETF	NASDAQ
FVD	First Trust Value Line Dividend Index Fund	NYSE Arca
FXA	CurrencyShares Australian Dollar Trust	NYSE Arca
FXB	CurrencyShares British Pound Sterling Trust	NYSE Arca
FXC	CurrencyShares Canadian Dollar Trust	NYSE Arca
FXD	First Trust Consumer Discretionary AlphaDEX Fund	NYSE Arca
FXE	CurrencyShares Euro Trust	NYSE Arca
FXG	First Trust Consumer Staples AlphaDEX Fund	NYSE Arca
FXH	First Trust Health Care AlphaDEX Fund	NYSE Arca
FXI	iShares China Large-Cap ETF	NYSE Arca
FXL	First Trust Technology AlphaDEX Fund	NYSE Arca
FXN	First Trust Energy AlphaDEX Fund	NYSE Arca
FXO	First Trust Financial AlphaDEX Fund	NYSE Arca
FXR	First Trust Industrials/Producer Durables AlphaDEX Fund	NYSE Arca
FXU	First Trust Utilities AlphaDEX Fund	NYSE Arca
FXY	CurrencyShares Japanese Yen Trust	NYSE Arca
FXZ	First Trust Materials AlphaDEX Fund	NYSE Arca
FYX	First Trust Small Cap Core AlphaDEX Fund	NYSE Arca
GBF	iShares Government/Credit Bond ETF	NYSE Arca
GDX	Market Vectors Gold Miners ETF	NYSE Arca
GDXJ	Market Vectors Junior Gold Miners ETF	NYSE Arca
GEM	Goldman Sachs ActiveBeta Emerging Markets Equity ETF	NYSE Arca
GLD	SPDR Gold Shares	NYSE Arca
GMF	SPDR S&P Emerging Asia Pacific ETF	NYSE Arca
GMM	SPDR S&P Emerging Markets ETF	NYSE Arca
GNR	SPDR S&P Global Natural Resources ETF	NYSE Arca
GOVT	iShares Core US Treasury Bond ETF	NYSE Arca
GREK	Global X FTSE Greece 20 ETF	NYSE Arca
GSG	iShares S&P GSCI Commodity Indexed Trust	NYSE Arca
GSLC	Goldman Sachs ActiveBeta U.S. Large Cap Equity ETF	NYSE Arca
GSY	Guggenheim Enhanced Short Duration ETF	NYSE Arca

Ticker	ETP Name	Exchange
GUNR	FlexShares Global Upstream Natural Resources Index Fund	NYSE Arca
GVI	iShares Intermediate Government/Credit Bond ETF	NYSE Arca
GWL	SPDR S&P World ex-US ETF	NYSE Arca
GWX	SPDR S&P International Small Cap ETF	NYSE Arca
GXC	SPDR S&P China ETF	NYSE Arca
GYLD	Arrow Dow Jones Global Yield ETF	NYSE Arca
HACK	PureFunds ISE Cyber Security ETF	NYSE Arca
HAO	Guggenheim China Small Cap ETF	NYSE Arca
HDGE	AdvisorShares Ranger Equity Bear ETF	NYSE Arca
HDV	iShares High Dividend ETF JDR	NYSE Arca
HEDJ	WisdomTree Europe Hedged Equity Fund	NYSE Arca
HEEM	iShares Currency Hedged MSCI Emerging Markets ETF	NYSE Arca
HEFA	iShares Currency Hedged MSCI EAFE ETF	NYSE Arca
HEWG	iShares Currency Hedged MSCI Germany ETF	NYSE Arca
HEWJ	iShares Currency Hedged MSCI Japan ETF	NYSE Arca
HEZU	iShares Currency Hedged MSCI Eurozone ETF	NYSE Arca
HYD	Market Vectors High Yield Municipal Index ETF	NYSE Arca
HYEM	Market Vectors Emerging High Yield Bond ETF	NYSE Arca
HYG	iShares iBoxx $ High Yield Corporate Bond ETF	NYSE Arca
HYLD	Peritus High Yield ETF	NYSE Arca
HYLS	First Trust Exchange-Traded Fund IV First Trust Tactical High Yield ETF	NASDAQ
HYMB	SPDR Nuveen S&P High Yield Municipal Bond ETF	NYSE Arca
HYS	PIMCO 0-5 Year High Yield Corporate Bond Index Exchange-Traded Fund	NYSE Arca
IAGG	iShares International Aggregate Bond Fund	BATS
IAI	iShares U.S. Broker-Dealers & Securities Exchanges ETF	NYSE Arca
IAT	iShares US Regional Banks ETF	NYSE Arca
IAU	iShares Gold Trust	NYSE Arca
IBB	iShares Nasdaq Biotechnology ETF	NASDAQ
ICF	iShares Cohen & Steers REIT ETF	NYSE Arca
IDLB	PowerShares FTSE International Low Beta Equal Weight Portfolio	NASDAQ
IDLV	PowerShares S&P International Developed Low Volatility Portfolio	NYSE Arca
IDU	iShares US Utilities ETF	NYSE Arca
IDV	iShares International Select Dividend ETF	NYSE Arca
IEF	iShares 7-10 Year Treasury Bond ETF	NYSE Arca

Ticker	ETP Name	Exchange
IEFA	iShares Core MSCI EAFE ETF	NYSE Arca
IEI	iShares 3-7 Year Treasury Bond ETF	NYSE Arca
IEMG	iShares Core MSCI Emerging Markets ETF JDR	NYSE Arca
IEO	iShares U.S. Oil & Gas Exploration & Production ETF	NYSE Arca
IEUR	iShares Core MSCI Europe ETF	NYSE Arca
IEV	iShares Europe ETF	NYSE Arca
IEZ	iShares U.S. Oil Equipment & Services ETF	NYSE Arca
IFGL	iShares International Developed Real Estate ETF	NASDAQ
IFV	First Trust Dorsey Wright International Focus 5 ETF	NASDAQ
IGE	iShares North American Natural Resources ETF	NYSE Arca
IGF	iShares Global Infrastructure ETF	NYSE Arca
IGM	iShares North American Tech ETF	NYSE Arca
IGOV	iShares International Treasury Bond ETF	NASDAQ
IGV	iShares North American Tech-Software ETF	NYSE Arca
IHDG	WisdomTree International Hedged Quality Dividend Growth Fund	NYSE Arca
IHE	iShares US Pharmaceuticals ETF	NYSE Arca
IHF	iShares U.S. Healthcare Providers ETF	NYSE Arca
IHI	iShares U.S. Medical Devices ETF	NYSE Arca
IJH	iShares Core S&P Mid-Cap ETF	NYSE Arca
IJJ	iShares S&P Mid-Cap 400 Value ETF	NYSE Arca
IJK	iShares S&P Mid-Cap 400 Growth ETF	NYSE Arca
IJR	iShares Core S&P Small-Cap ETF	NYSE Arca
IJS	iShares S&P Small-Cap 600 Value ETF	NYSE Arca
IJT	iShares S&P Small-Cap 600 Growth ETF	NYSE Arca
ILF	iShares Latin America 40 ETF	NYSE Arca
IMLP	iPath S&P MLP ETN	NYSE Arca
INDA	iShares MSCI India ETF	BATS
INDY	iShares India 50 ETF	NASDAQ
IOO	iShares Global 100 ETF	NYSE Arca
IPAC	iShares Core MSCI Pacific ETF	NYSE Arca
IQDF	FlexShares International Quality Dividend Index Fund	NYSE Arca
ISTB	iShares Core 1-5 Year USD Bond ETF	NYSE Arca
ITA	iShares US Aerospace & Defense ETF	NYSE Arca
ITB	iShares U.S. Home Construction ETF	NYSE Arca
ITE	SPDR Barclays Intermediate Term Treasury ETF	NYSE Arca
ITM	Market Vectors Intermediate Municipal ETF	NYSE Arca
ITOT	iShares Core S&P Total US Stock Market ETF	NYSE Arca

Ticker	ETP Name	Exchange
ITR	SPDR Barclays Intermediate Term Corporate Bond ETF	NYSE Arca
IUSG	iShares Core US Growth ETF	NYSE Arca
IUSV	iShares Core US Value ETF	NYSE Arca
IVE	iShares S&P 500 Value ETF	NYSE Arca
IVV	iShares Core S&P 500 ETF	NYSE Arca
IVW	iShares S&P 500 Growth ETF	NYSE Arca
IWB	iShares Russell 1000 ETF	NYSE Arca
IWC	iShares Micro-Cap ETF	NYSE Arca
IWD	iShares Russell 1000 Value ETF	NYSE Arca
IWF	iShares Russell 1000 Growth ETF	NYSE Arca
IWM	iShares Russell 2000 ETF	NYSE Arca
IWN	iShares Russell 2000 Value ETF	NYSE Arca
IWO	iShares Russell 2000 Growth ETF	NYSE Arca
IWP	iShares Russell Mid-Cap Growth ETF	NYSE Arca
IWR	iShares Russell Mid-Cap ETF	NYSE Arca
IWS	iShares Russell Mid-Cap Value ETF	NYSE Arca
IWV	iShares Russell 3000 ETF	NYSE Arca
IWY	iShares Russell Top 200 Growth ETF	NYSE Arca
IXC	iShares Global Energy ETF	NYSE Arca
IXG	iShares Global Financials ETF	NYSE Arca
IXJ	iShares Global Healthcare ETF	NYSE Arca
IXN	iShares Global Tech ETF	NYSE Arca
IXP	iShares Global Telecom ETF	NYSE Arca
IXUS	iShares Core MSCI Total International Stock ETF	NYSE Arca
IYC	iShares U.S. Consumer Services ETF	NYSE Arca
IYE	iShares U.S. Energy ETF	NYSE Arca
IYF	iShares US Financials ETF	NYSE Arca
IYG	iShares U.S. Financial Services ETF	NYSE Arca
IYH	iShares U.S. Healthcare ETF	NYSE Arca
IYJ	iShares U.S. Industrials ETF	NYSE Arca
IYK	iShares US Consumer Goods ETF	NYSE Arca
IYM	iShares U.S. Basic Materials ETF	NYSE Arca
IYR	iShares U.S. Real Estate ETF	NYSE Arca
IYT	iShares Transportation Average ETF	NYSE Arca
IYW	iShares US Technology ETF	NYSE Arca
IYY	iShares Dow Jones U.S. ETF	NYSE Arca
IYZ	iShares US Telecommunications ETF	NYSE Arca
JKD	iShares Morningstar Large-Cap ETF	NYSE Arca
JKE	iShares Morningstar Large-Cap Growth ETF	NYSE Arca

Ticker	ETP Name	Exchange
JKG	iShares Morningstar Mid-Cap ETF	NYSE Arca
JNK	SPDR Barclays High Yield Bond ETF	NYSE Arca
JO	iPath Bloomberg Coffee Subindex Total Return ETN	NYSE Arca
KBE	SPDR S&P Bank ETF	NYSE Arca
KBWB	PowerShares KBW Bank Portfolio	NYSE Arca
KIE	SPDR S&P Insurance ETF	NYSE Arca
KRE	SPDR S&P Regional Banking ETF	NYSE Arca
KWEB	KraneShares CSI China Internet ETF	NASDAQ
KXI	iShares Global Consumer Staples ETF	NYSE Arca
LEMB	iShares Emerging Markets Local Currency Bond ETF	NYSE Arca
LQD	iShares iBoxx $ Investment Grade Corporate Bond ETF	NYSE Arca
LWC	SPDR Barclays Long Term Corporate Bond ETF	NYSE Arca
MBB	iShares MBS ETF	NYSE Arca
MCHI	iShares MSCI China ETF	NYSE Arca
MDIV	First Trust Multi-Asset Diversified Income Index Fund	NASDAQ
MDY	SPDR S&P MidCap 400 ETF Trust	NYSE Arca
MDYG	SPDR S&P 400 Mid CapGrowth ETF	NYSE Arca
MGC	Vanguard Mega Cap ETF	NYSE Arca
MGK	Vanguard Mega Cap Growth ETF	NYSE Arca
MGV	Vanguard Mega Cap Value ETF	NYSE Arca
MINT	PIMCO Enhanced Short Maturity Active Exchange-Traded Fund	NYSE Arca
MLPA	Global X MLP ETF	NYSE Arca
MLPI	ETRACS Alerian MLP Infrastructure Index ETN	NYSE Arca
MLPN	Credit Suisse X-Links Cushing MLP Infrastructure ETNs due April 20, 2020	NYSE Arca
MLPX	Global X MLP & Energy Infrastructure ETF	NYSE Arca
MOAT	Market Vectors Morningstar Wide Moat ETF	NYSE Arca
MOO	Market Vectors Agribusiness ETF	NYSE Arca
MTUM	iShares MSCI USA Momentum Factor ETF	NYSE Arca
MUB	iShares National AMT-Free Muni Bond ETF	NYSE Arca
MXI	iShares Global Materials ETF	NYSE Arca
NANR	SPDR S&P North American Natural Resources ETF	NYSE Arca
NEAR	iShares Short Maturity Bond ETF	BATS
NFLT	Virtus Newfleet Multi-Sector Unconstrained Bond ETF	NYSE Arca
NFRA	FlexShares STOXX Global Broad Infrastructure Index Fund	NYSE Arca

Ticker	ETP Name	Exchange
NOBL	ProShares S&P 500 Dividend Aristocrats ETF	NYSE Arca
OEF	iShares S&P 100 ETFJDR	NYSE Arca
OIH	Market Vectors Oil Service ETF	NYSE Arca
OIL	iPath Goldman Sachs Crude Oil Total Return Index ETN	NYSE Arca
ONEO	SPDR Russell 1000 Momentum Focus ETF	NYSE Arca
ONEQ	Fidelity NASDAQ Composite Index Tracking Stock ETF	NASDAQ
ONEV	SPDR Russell 1000 Low Volatility Focus ETF	NYSE Arca
ONEY	SPDR Russell 1000 Yield Focus ETF	NYSE Arca
PALL	ETFS Physical Palladium Shares	NYSE Arca
PBE	Powershares Dynamic Biotechnology & Genome Portfolio	NYSE Arca
PBJ	Powershares Dynamic Food & Beverage Portfolio	NYSE Arca
PBP	PowerShares S&P 500 BuyWrite Portfolio	NYSE Arca
PCEF	PowerShares CEF Income Composite Portfolio	NYSE Arca
PCY	PowerShares Emerging Markets Sovereign Debt Portfolio	NYSE Arca
PDP	PowerShares DWA Momentum Portfolio	NYSE Arca
PEK	Market Vectors ChinaAMC A-Share ETF	NYSE Arca
PEY	PowerShares High Yield Equity Dividend Achievers Portfolio	NYSE Arca
PEZ	PowerShares DWA Consumer Cyclicals Momentum Portfolio	NYSE Arca
PFF	iShares US Preferred Stock ETF	NYSE Arca
PGF	PowerShares Financial Preferred Portfolio	NYSE Arca
PGX	PowerShares Preferred Portfolio	NYSE Arca
PHB	PowerShares Fundamental High Yield Corporate Bond Portfolio	NYSE Arca
PHDG	PowerShares S&P 500 Downside Hedged Portfolio	NYSE Arca
PHO	PowerShares Water Resources Portfolio	NYSE Arca
PHYS	Sprott Physical Gold Trust	NYSE Arca
PID	PowerShares International Dividend Achievers Portfolio	NYSE Arca
PIE	PowerShares DWA Emerging Markets Momentum Portfolio	NYSE Arca
PIN	PowerShares India Portfolio	NYSE Arca
PIZ	PowerShares DWA Developed Markets Momentum Portfolio	NYSE Arca
PJP	Powershares Dynamic Pharmaceuticals Portfolio	NYSE Arca
PKW	PowerShares Buyback Achievers Portfolio	NYSE Arca

Ticker	ETP Name	Exchange
PLW	PowerShares 1-30 Laddered Treasury Portfolio	NYSE Arca
PNQI	PowerShares NASDAQ Internet Portfolio	NASDAQ
PPH	Market Vectors Pharmaceutical ETF	NYSE Arca
PPLT	ETFS Physical Platinum Shares	NYSE Arca
PRF	Powershares FTSE RAFI US 1000 Portfolio	NYSE Arca
PRFZ	PowerShares FTSE RAFI US 1500 Small-Mid Portfolio	NASDAQ
PRN	PowerShares Dynamic Industrials Sector Portfolio	NYSE Arca
PSCH	PowerShares S&P SmallCap Health Care Portfolio	NASDAQ
PSCT	PowerShares S&P SmallCap Information Technology Portfolio	NASDAQ
PSK	SPDR Wells Fargo Preferred Stock ETF	NYSE Arca
PSL	PowerShares DWA Consumer Staples Momentum Portfolio	NYSE Arca
PSLV	Sprott Physical Silver Trust	NYSE Arca
PSP	PowerShares Global Listed Private Equity Portfolio	NYSE Arca
PSQ	ProShares Short QQQ	NYSE Arca
PTF	PowerShares DWA Technology Momentum Portfolio	NYSE Arca
PTH	PowerShares DWA Healthcare Momentum Portfolio	NYSE Arca
PTLC	Pacer Trendpilot 750 ETF	BATS
PWV	PowerShares Dynamic Large Cap Value Portfolio	NYSE Arca
PXF	PowerShares FTSE RAFI Developed Markets ex-U.S. Portfolio	NYSE Arca
PXH	PowerShares FTSE RAFI Emerging Markets Portfolio	NYSE Arca
PZA	PowerShares National AMT-Free Municipal Bond Portfolio	NYSE Arca
QABA	First Trust NASDAQ ABA Community Bank Index Fund	NASDAQ
QAI	IndexIQ ETF Trust - IQ Hedge Multi-Strategy Tracker ETF	NYSE Arca
QDF	FlexShares Quality Dividend Index Fund	NYSE Arca
QLTA	iShares Aaa - A Rated Corporate Bond ETF	NYSE Arca
QQEW	First Trust NASDAQ-100 Equal Weighted Index Fund	NASDAQ
QQQ	Powershares QQQ Trust Series 1	NASDAQ
QUAL	iShares MSCI USA Quality Factor ETF	NYSE Arca
RCD	Guggenheim S&P 500 Equal Weight Consumer Discretionary ETF	NYSE Arca
REM	iShares Mortgage Real Estate Capped ETF	NYSE Arca
REZ	iShares Residential Real Estate Capped ETF	NYSE Arca

Ticker	ETP Name	Exchange
RFG	Guggenheim S&P Midcap 400 Pure Growth ETF	NYSE Arca
RHS	Guggenheim S&P 500 Equal Weight Consumer Staples ETF	NYSE Arca
RIGS	Riverfront Strategic Income Fund	NYSE Arca
RJI	ELEMENTS Linked to the Rogers International Commodity Index – Total Return	NYSE Arca
RPG	Guggenheim S&P 500 Pure Growth ETF	NYSE Arca
RPV	Guggenheim S&P 500 Pure Value ETF	NYSE Arca
RSP	Guggenheim S&P 500 Equal Weight ETF	NYSE Arca
RSX	Market Vectors Russia ETF	NYSE Arca
RTH	Market Vectors Retail ETF	NYSE Arca
RWM	ProShares Short Russell2000	NYSE Arca
RWO	SPDR Dow Jones Global Real Estate ETF	NYSE Arca
RWR	SPDR Dow Jones REIT ETF	NYSE Arca
RWX	SPDR Dow Jones International Real Estate ETF	NYSE Arca
RXI	iShares Global Consumer Discretionary ETF	NYSE Arca
RYE	Guggenheim S&P 500 Equal Weight Energy ETF	NYSE Arca
RYF	Guggenheim S&P 500 Equal Weight Financials ETF	NYSE Arca
RYH	Guggenheim S&P 500 Equal Weight Healthcare ETF	NYSE Arca
RYT	Guggenheim S&P 500 Equal Weight Technology ETF	NYSE Arca
RZG	Guggenheim S&P Smallcap 600 Pure Growth ETF	NYSE Arca
SBIO	ALPS Medical Breakthroughs ETF	NYSE Arca
SCHA	Schwab US Small-Cap ETF	NYSE Arca
SCHB	Schwab US Broad Market ETF	NYSE Arca
SCHC	Schwab International Small-Cap Equity ETF	NYSE Arca
SCHD	Schwab US Dividend Equity ETF	NYSE Arca
SCHE	Schwab Emerging Markets Equity ETF	NYSE Arca
SCHF	Schwab International Equity ETF	NYSE Arca
SCHG	Schwab U.S. Large-Cap Growth ETF	NYSE Arca
SCHH	Schwab U.S. REIT ETF	NYSE Arca
SCHM	Schwab U.S. Mid-Cap ETF	NYSE Arca
SCHO	Schwab Short-Term U.S. Treasury ETF	NYSE Arca
SCHP	Schwab US TIPs ETF	NYSE Arca
SCHR	Schwab Intermediate-Term U.S. Treasury ETF	NYSE Arca
SCHV	Schwab U.S. Large-Cap Value ETF	NYSE Arca
SCHX	Schwab US Large-Cap ETF	NYSE Arca
SCHZ	Schwab U.S. Aggregate Bond ETF	NYSE Arca
SCIF	Market Vectors India Small-Cap Index ETF	NYSE Arca
SCJ	iShares MSCI Japan Small-Cap ETF	NYSE Arca

Ticker	ETP Name	Exchange
SCPB	SPDR Barclays Short Term Corporate Bond ETF	NYSE Arca
SCZ	iShares MSCI EAFE Small-Cap ETF	NYSE Arca
SDIV	Global X SuperDividend ETF	NYSE Arca
SDOG	ALPS Sector Dividend Dogs ETF	NYSE Arca
SDY	SPDR S&P Dividend ETF	NYSE Arca
SGOL	ETFS Physical Swiss Gold Shares	NYSE Arca
SH	ProShares Short S&P500	NYSE Arca
SHM	SPDR Nuveen Barclays Short Term Municipal Bond ETF	NYSE Arca
SHV	iShares Short Treasury Bond ETF	NYSE Arca
SHY	iShares 1-3 Year Treasury Bond ETF	NYSE Arca
SHYG	iShares 0-5 Year High Yield Corporate Bond ETF	NYSE Arca
SJB	ProShares Short High Yield	NYSE Arca
SJNK	SPDR Barclays Short Term High Yield Bond ETF	NYSE Arca
SKYY	First Trust ISE Cloud Computing Index Fund	NASDAQ
SLV	iShares Silver Trust	NYSE Arca
SLYG	SPDR S&P 600 Small Cap Growth ETF	NYSE Arca
SLYV	SPDR S&P 600 Small CapValue ETF	NYSE Arca
SMH	Market Vectors Semiconductor ETF	NYSE Arca
SNLN	Highland/iBoxx Senior Loan ETF	NYSE Arca
SOXX	iShares PHLX Semiconductor ETF	NASDAQ
SPHD	PowerShares S&P 500 High Dividend Low Volatility Portfolio	NYSE Arca
SPHQ	PowerShares S&P 500 High Quality Portfolio	NYSE Arca
SPLV	PowerShares S&P 500 Low Volatility Portfolio	NYSE Arca
SPY	SPDR S&P500 ETF Trust	NYSE Arca
SPYG	SPDR S&P 500 Growth ETF	NYSE Arca
SPYX	SPDR S&P 500 Fossil Fuel Free ETF	NYSE Arca
SRLN	SPDR Blackstone / GSO Senior Loan ETF	NYSE Arca
STIP	iShares 0-5 Year TIPS Bond ETF	NYSE Arca
STPZ	PIMCO 1-5 Year U.S. TIPS Index Exchange-Traded Fund	NYSE Arca
SUB	iShares Short-Term National AMT-Free Muni Bond ETF	NYSE Arca
SVXY	ProShares Short VIX Short-Term Futures ETF	NYSE Arca
TAN	Guggenheim Solar ETF	NYSE Arca
TBF	ProShares Short 20+ Year Treasury	NYSE Arca
TDIV	First Trust NASDAQ Technology Dividend Index Fund	NASDAQ

Ticker	ETP Name	Exchange
TDTT	FlexShares iBoxx 3-Year Target Duration TIPS Index Fund	NYSE Arca
TFI	SPDR Nuveen Barclays Municipal Bond ETF	NYSE Arca
THD	iShares MSCI Thailand Capped ETF	NYSE Arca
TIP	iShares TIPS Bond ETF	NYSE Arca
TLH	iShares 10-20 Year Treasury Bond ETF	NYSE Arca
TLO	SPDR Barclays Long Term Treasury ETF	NYSE Arca
TLT	iShares 20+ Year Treasury Bond ETF	NYSE Arca
TLTD	FlexShares Morningstar Developed Markets ex-US Factor Tilt Index Fund	NYSE Arca
TLTE	FlexShares Morningstar Emerging Markets Factor Tilt Index Fund	NYSE Arca
TOTL	SPDR Doubleline Total Return Tactical ETF	NYSE Arca
TUR	iShares MSCI Turkey ETF	NYSE Arca
UNG	United States Natural Gas Fund LP	NYSE Arca
URTH	iShares MSCI World ETF	NYSE Arca
USCI	United States Commodity Index Fund	NYSE Arca
USDU	WisdomTree Bloomberg U.S. Dollar Bullish Fund	NYSE Arca
USLB	PowerShares Russell Low Beta Equal Weight Portfolio	NASDAQ
USMV	iShares MSCI USA Minimum Volatility ETF	NYSE Arca
USO	United States Oil Fund LP	NYSE Arca
UUP	PowerShares DB US Dollar Index Bullish Fund	NYSE Arca
VAW	Vanguard Materials ETF	NYSE Arca
VB	Vanguard Small-Cap ETF	NYSE Arca
VBK	Vanguard Small-Cap Growth ETF	NYSE Arca
VBR	Vanguard Small-Cap Value ETF	NYSE Arca
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	NASDAQ
VCLT	Vanguard Long-Term Corporate Bond ETF	NASDAQ
VCR	Vanguard Consumer Discretionary ETF	NYSE Arca
VCSH	Vanguard Short-Term Corporate Bond ETF	NASDAQ
VDC	Vanguard Consumer Staples ETF	NYSE Arca
VDE	Vanguard Energy ETF	NYSE Arca
VEA	Vanguard FTSE Developed Markets ETF	NYSE Arca
VEU	Vanguard FTSE All-World ex-US ETF	NYSE Arca
VFH	Vanguard Financials ETF	NYSE Arca
VGIT	Vanguard Intermediate-Term Government Bond ETF	NASDAQ
VGK	Vanguard FTSE Europe ETF	NYSE Arca
VGLT	Vanguard Long-Term Government Bond ETF	NASDAQ
VGSH	Vanguard Short-Term Government Bond ETF	NASDAQ

Ticker	ETP Name	Exchange
VGT	Vanguard Information Technology ETF	NYSE Arca
VHT	Vanguard Health Care ETF	NYSE Arca
VIDI	Vident International Equity Fund	NASDAQ
VIG	Vanguard Dividend Appreciation ETF	NYSE Arca
VIIX	VelocityShares VIX Short Term ETN	NASDAQ
VIS	Vanguard Industrials ETF	NYSE Arca
VIXY	ProShares VIX Short-Term Futures ETF	NYSE Arca
VMBS	Vanguard Mortgage-Backed Securities ETF	NASDAQ
VNM	Market Vectors Vietnam ETF	NYSE Arca
VNQ	Vanguard REIT ETF	NYSE Arca
VNQI	Vanguard Global ex-U.S. Real Estate ETF	NASDAQ
VO	Vanguard Mid-Cap ETF	NYSE Arca
VOE	Vanguard Mid-Cap Value ETF	NYSE Arca
VONE	Vanguard Russell 1000	NASDAQ
VONG	Vanguard Russell 1000 Growth ETF	NASDAQ
VONV	Vanguard Russell 1000 Value	NASDAQ
VOO	Vanguard S&P 500 ETF	NYSE Arca
VOOG	Vanguard S&P 500 Growth ETF	NYSE Arca
VOT	Vanguard Mid-Cap Growth ETF	NYSE Arca
VOX	Vanguard Telecommunication Services ETF	NYSE Arca
VPL	Vanguard FTSE Pacific ETF	NYSE Arca
VPU	Vanguard Utilities ETF	NYSE Arca
VQT	Barclays ETN+ ETNs Linked to the S&P 500 Dynamic VEQTORTM Total Return Index	NYSE Arca
VRP	PowerShares Variable Rate Preferred Portfolio	NYSE Arca
VSS	Vanguard FTSE All World ex-US Small-Cap ETF	NYSE Arca
VT	Vanguard Total World Stock ETF	NYSE Arca
VTEB	Vanguard Tax-Exempt Bond Index ETF	NYSE Arca
VTI	Vanguard Total Stock Market ETF	NYSE Arca
VTIP	Vanguard Short-Term Inflation-Protected Securities ETF	NASDAQ
VTV	Vanguard Value ETF	NYSE Arca
VTWO	Vanguard Russell 2000	NASDAQ
VUG	Vanguard Growth ETF	NYSE Arca
VUSE	Vident Core US Equity ETF	NASDAQ
VV	Vanguard Large-Cap ETF	NYSE Arca
VWO	Vanguard FTSE Emerging Markets ETF	NYSE Arca
VWOB	Vanguard Emerging Markets Government Bond ETF	NASDAQ
VXF	Vanguard Extended Market ETF	NYSE Arca
VXUS	Vanguard Total International Stock ETF	NASDAQ

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

Appendix B – Data

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

I. **Summary Statistics**

A. Frequency with which NMS Stocks enter a Limit State. Such summary data shall be broken down as follows:

1. Partition stocks by category

   a. Tier 1 non-ETP issues > $3.00

   b. Tier 1 non-ETP issues >= $0.75 and <= $3.00

   c. Tier 1 non-ETP issues < $0.75

   d. Tier 1 non-leveraged ETPs in each of above categories

   e. Tier 1 leveraged ETPs in each of above categories

   f. Tier 2 non-ETPs in each of above categories

   g. Tier 2 non-leveraged ETPs in each of above categories

   h. Tier 2 leveraged ETPs in each of above categories

2. Partition by time of day

   a. Opening (prior to 9:45 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.

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