June 17, 2024

By Email

Ms. Vanessa Countryman
Secretary
U.S. Securities and Exchange Commission
100 F Street NE
Washington, D.C. 20549

Re: Twenty-Third Amendment to the National Market System Plan to Address Extraordinary Market Volatility (File No. 4-631)

Dear Ms. Countryman:

As Chair of the Operating Committee of the Limit Up/Limit Down Plan ("Plan"), also known as the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS under the Securities Exchange Act of 1934, I appreciate the opportunity to provide these comments on behalf of the Plan's Participants[1] and Advisors in response to feedback from staff of the Securities and Exchange Commission (the "Commission" or "SEC") about the Proposed 23rd Amendment to the Plan (the "Proposal").[2] The Proposal would amend Appendix A to the Plan to provide that all exchange-traded products ("ETPs") would be assigned to Tier 1 of the Plan, except for single stock ETPs, which would be assigned to the same tier as their underlying stock, and in each case adjusted for any leverage factor.

As noted in the Proposal, the Participants made the Proposal at the request of market participants who believe that investors' experience can be improved by moving all ETPs to Tier 1. Since the Proposal was published, it has received overwhelming support from market participants all across the trading community. On December 18, 2023, a group of diverse firms including BlackRock, Charles Schwab, Citadel Securities, ETF Global, Federated Hermes, Flow Traders, Grayscale, GTS, Invesco, Jane Street, J.P.Morgan, Northern Trust, FlexShares, Nuveen, STA, State Street Global Advisors, T. Rowe Price, VanEck, Vanguard, and Virtu Financial submitted a comment letter "urg[ing] the Commission to approve" the Proposal.[3] On March 14, 2024, the Investment Company Institute ("ICI") -- an association representing regulated investment funds who are issuers and institutional users of many of the potentially-impacted ETPs -- submitted a comment letter "strongly support[ing] the

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1 The current Plan Participants are: Cboe BZX Exchange, Inc.; Cboe BYX Exchange, Inc.; Cboe EDGA Exchange, Inc.; Cboe EDGX Exchange, Inc.; Financial Industry Regulatory Authority, Inc.; Investors Exchange LLC; Long-Term Stock Exchange, Inc.; MEMX LLC; MIAX Pearl, LLC; Nasdaq BX, Inc.; Nasdaq PHLX LLC; The Nasdaq Stock Market LLC; New York Stock Exchange LLC; NYSE American LLC; NYSE Arca, Inc.; NYSE Chicago, Inc.; and NYSE National, Inc. (collectively, the "Participants").

2 See Securities Exchange Act Release No. 98928 (November 14, 2023), 88 FR 81131 (November 21, 2023) (File No. 4-631) (Notice of Filing of the Twenty-Third Amendment to the National Market System Plan to Address Extraordinary Market Volatility). Capitalized terms in this letter have the same meaning as in the Proposal.

3 Letter from Samara Cohen, Chief Investment Officer of ETF and Index Investments, BlackRock, et al., to Vanessa Countryman, Secretary, SEC, dated December 18, 2023, available at https://www.sec.gov/comments/4-631/4631-316879-826042.pdf.

proposed amendments."[4] On April 22, 2024, the Securities Industry and Financial Markets Association ("SIFMA") and the SIFMA Asset Management Group submitted a comment letter on behalf of their member broker-dealers, investment banks, and asset managers, supporting the Proposal and urging the Commission to approve it.[5]

In today's fragmented marketplace, such unanimity of support in favor of the Proposal from such diverse market participants is remarkable, and should factor heavily in the Commission's consideration of the Proposal.[6]

Additionally, the Participants note that after the SEC approved the Plan as a permanent rule on April 11, 2019, the Participants subsequently amended their clearly erroneous execution ("CEE") rules to complement the Plan by limiting the ability of market participants to request a CEE review when Limit Up/Limit Down Price Bands are in effect.[7] These amendments have beneficially provided market participants with certainty of execution for trades occurring within the Limit Up/Limit Down Price Bands. However, they also elevate the importance of determining the right tier for each security, because market participants generally no longer have recourse to CEE reviews if erroneous trades occur inside of wide Price Bands that are overly accommodative.

This letter responds to three comments from SEC staff concerning the Proposal.

1. Quote Volatility Data

In a March 21, 2024 call with representatives of the Participants and Advisors, staff from the SEC's Division of Economic and Risk Analysis ("DERA") questioned whether the second-to-second quote volatility statistics included in Section 1 of the Proposal[8] were the most fitting way to measure volatility. DERA staff posited that if Tier 2 ETPs do not trade, the volatility percentage would be zero, which would bias the overall estimate of volatility downwards. This is not accurate: quotes for even thinly-traded ETPs change frequently as market makers update their valuations of ETPs' underlying portfolios, so it is not the case that the computation of quote volatility is biased by many zeroes.

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4 Letter from Kevin Fang, Associate General Counsel, and Kevin Ercoline, Assistant General Counsel, ICI, to Vanessa Countryman, Secretary, SEC, dated March 14, 2024, available at https://www.sec.gov/comments/4-631/4631-445919-1140962.pdf.

5 Letter from Ellen Greene, Managing Director, Equities & Options Market Structure, SIFMA, and Kevin Erlich, Managing Director, SIFMA AMG, to Vanessa Countryman, Secretary, SEC, dated April 22, 2024, available at https://www.sec.gov/comments/4-631/4631-461651-1208234.pdf.

6 In contrast, the only letters in the comment file that oppose the Proposal are six letters from individuals that generally critique the Plan overall as contrary to free-market principles.

7 See, e.g., Securities Exchange Act Release No. 95259 (July 12, 2022), 87 FR 42760 (July 18, 2022) (SR-CboeBZX-2022-037) (Order Approving Proposed Rule Change to Amend BZX Rule 11.17, Clearly Erroneous Executions).

8 See Proposal, supra note 2, at 81134 note 11.

Nevertheless, the Participants have calculated two additional quote volatility measurements, which are significantly less biased by the frequency of quote updates, to support the Proposal, shown in Table A below.

- Garman Klass Volatility. At the suggestion of an Advisor, the Participants computed Garman Klass Volatility ("GKV"), which measures the difference between the open and the close, and the high price and low price. The Participants calculated this statistic based on regular trading hours activity. The results are consistent with the data already in the Proposal, indicating that non-leveraged Tier 2 ETPs are far less volatile than Tier 1 non-ETPs, and exhibit full-day volatility similar to Tier 1 ETPs.

- Five-minute Quote Volatility. The Participants also leveraged the second-to-second quote volatility data in Section 1 of the Proposal to calculate the five-minute range of quote midpoints in basis points. The Participants used discrete five-minute periods starting at 9:30 a.m. and ending at 4:00 p.m., the close of regular trading hours. Although some less-liquid securities might not exhibit quote changes as frequently as higher-volume stocks, the Participants consider a five-minute range to be indicative of intraday volatility as it relates to the Plan. As with the GKV data, non-leveraged Tier 2 ETPs were less volatile than Tier 1 non-ETPs. In addition, leveraged ETPs, given leverage factors, show volatility levels that would support a move to Tier 1 after adjusting band width for leverage factors.

Table A: Volatility Comparison

Security Category	Garman Klass Volatility	Average. 5-min Quote Volatility	Median 5-min Quote Volatility
Tier 1 ETP	1.10%	14.09	7.09
Tier 1 non-ETP	2.74%	32.30	19.10
Tier 2 ETP (not leveraged)	1.03%	27.74	6.63
Tier 2 non-ETP	3.72%	151.55	20.36
Tier 2 ETP (leveraged)	3.05%	64.11	21.43

When combined with the data in the Proposal's Table 2 concerning the incidence of Limit States and Trading Pauses among Tier 1 non-ETPs and Tier 2 ETPs and non-ETPs,[9] these additional volatility statistics provide further support for the Participant's conclusion in the Proposal:

> Overall, the comparison between Tier 1 non-ETPs and Tier 2 ETPs shows that quote volatility of Tier 2 ETPs operating under wider Price Bands is lower than Tier 1 non-ETPs, and that the incidence of Limit States and Trading Pauses for Tier 1 non-ETPs is substantially higher than that of Tier 2 ETPs. By contrast, Tier 2 non-ETPs are considerably more volatile than Tier 1 non-ETPs, which substantiates the wider Price Bands applied to these securities, as the higher number of Limit States and Trading Pauses in Tier 2 non-ETPs are occurring under 10% Price Bands. The Participants believe that these data indicate that the current Price Bands are not well-calibrated to

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[9] See Proposal, supra note 2, at 81135.

the realized volatility for Tier 2 ETPs and should not be twice as wide as those for Tier 1 non-ETPs.[10]

2. Price Movement After the Theoretical Blocked Trades

On the March 21 call, DERA staff also questioned the Participants' data in the Proposal's Table 5 concerning the price reversion following a breach of the Theoretical Tier 1 Bands. In Table 5, the Participants compared the midpoint of the NBBO at 5 and 10 minutes after the trade to the execution price. DERA staff suggested that a more relevant comparison would be the midpoint of the NBBO at 5 and 10 minutes after the trade to the *midpoint of the quote* at the time of execution.

The Participants have conducted this analysis, shown below in Table B. The table shows two different reversion measures: (1) the first and third columns calculate when the last mid-quote 5 or 10 minutes after the breach is below the mid-quote at the time of the trade that caused the breach, and (2) the second and fourth columns show what percentage of trades or share prices moved back inside the new Theoretical Tier 1 Bands. The columns marked "Includes" include cases where there was a pause following a trade that breached the Theoretical bands in the next 5 or 10 minutes; the columns marked "Excludes" remove those cases.

Table B shows that more than 60% of the time, prices 5 and 10 minutes after a theoretically prevented trade reverted away from the offending trade price towards prior prices. Share volume reversion remained above 50% after five minutes and above 60% after 10 minutes. This tendency toward reversion is further evidence in support of narrowing the bands to Tier 1 levels.

Table B: Price Performance Following Theoretical Blocked Trades

	Includes Pauses vs. Midquote	**Includes Pauses vs. Revised Band**	**Excludes Pauses vs. Midquote**	**Excludes Pauses vs. Revised Band**
5-Min % of Trades	62.0%	52.8%	64.7%	55.1%
10-Min % of Trades	67.4%	60.4%	68.3%	61.0%
5-Min % of Shares	51.3%	64.0%	52.0%	65.4%
10-Min % of Shares	60.4%	71.3%	60.2%	71.7%

3. Commodity ETPs

Finally, on the March 21 call, SEC staff questioned whether the data used in the Proposal supports moving all Tier 2 ETPs to Tier 1 wholesale, since sub-groups of Tier 2 ETPs could exist that might benefit from remaining in Tier 2. In particular, staff highlighted that "commodity ETPs" may or may not follow the same trends as other types of ETPs, yet idiosyncrasies pertaining to commodity ETPs would not be visible in the Proposal's data due to the "aggregated statistical approach" that the Participants used.

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10 Id.

The Participants and Advisors have several responses to this concern.

First, an Advisor contributed data from Bloomberg showing that approximately one-third of ETPs with an asset class focus of "commodity" (as defined by Bloomberg) are already in Tier 1.[11] Specifically, 33 of the 98 ETPs with an asset class focus of "commodity" are already in Tier 1. The 65 "commodity" ETPs in Tier 2 accounted for just 0.1% of total U.S. equity market notional value and share volume for the year 2023.

Second, the Participants created a list of "commodity ETPs" using Markit data from S&P Global. For this analysis, Participants consider an ETP to be a "commodity ETP" if it is based on a single commodity or a narrow category of commodities, such as precious metals. During 2023, "commodity ETPs" in Tier 1 and Tier 2 had zero Trading Pauses, far less than other ETPs overall. This is due to the fact that it is rare for a single commodity to have a 5% price move in a 5 minute period; as such, LULD events in ETPs tracking such financial instruments are also rare. This indicates that wider 10% bands are not necessary for this sub-group of ETPs.

Third, the participants calculated volatility statistics for "commodity ETPs." The Garman Klass Volatility for "commodity ETPs" in Tier 1 was 1.46%, and for non-leveraged "commodity ETPs" in Tier 2 was 1.73%. Both of these figures are lower than the Garman Klass Volatility for Tier 1 non-ETPs (2.74%). The Garman Klass Volatility for leveraged "commodity ETPs" in Tier 2 was 4.18%, which, given leverage factors relative to non-ETPs, is also consistent with placing all "commodity ETPs" in Tier 1.

The Participants also calculated quote volatility ranges. The median volatility for "commodity ETPs" in Tier 1 was 11.54 basis points, with an average of 18.87 -- well below the volatility range for Tier 1 non-ETPs, which had a median range of 19.10 basis points and an average of 32.39 basis points. The median volatility ranges for Tier 2 non-leveraged "commodity ETPs" was 10.38 basis points -- just over half of the Tier 1 non-ETP result. The average quote volatility range for Tier 2 non-leveraged "commodity ETPs" was 39.65 basis points. Although slightly higher than Tier 1 non-ETPs, it is only 26% of the volatility of Tier 2 non-ETPs, and does not justify placing "commodity ETPs" into Tier 2.

Fourth, as the Advisors suggested to the SEC staff on the call, the 5% Price Bands in Tier 1 are generally wide enough for ETPs, providing ample room for orderly and efficient markets while also protecting investors.

Fifth, keeping certain "commodity ETPs" in Tier 2 would cause unwarranted complexity. It would likely confuse investors if only a handful of "commodity ETPs" remained in Tier 2 while all the rest were in Tier 1. Additionally, ETPs based on the same commodity could end up in different tiers merely because of their trading volume, resulting in competitive imbalances between otherwise equivalent securities and some investors receiving different levels of protection than others. Among the operational complications would be the ongoing need for both exchanges and market participants to perform regular updates and to track the specific tier to which each "commodity ETP" has been assigned every six months, retaining unnecessary complexity in the Plan. It should also be noted that

11 Using data from Bloomberg as of March 21, 2024.

there is no standard definition of "commodity ETP," and different sources may define the term differently.

For the foregoing reasons, the Participants and the Advisors to the Plan believe that there is no reason to carve out "commodity ETPs" from the Proposal to move Tier 2 ETPs to Tier 1, and that if such "commodity ETPs" continued to follow the current tier assignment criteria, confusion would likely result.

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For the foregoing reasons and the reasons set out in the Proposal, the Participants and Advisors continue to believe that moving all Tier 2 ETPs to Tier 1 except for single stock ETPs, which would be assigned to the same tier as their underlying stock, and in each case adjusted for any leverage factor, would improve market quality, more effectively address volatility, provide greater investor protection, and decrease the number of unnecessary Limit States and Trading Pauses. Accordingly, the Participants seek approval of this amendment because it enhances the public interest, the protection of investors, and the maintenance of fair and orderly markets, and would remove impediments to and perfect the mechanisms of a national market system in conformance with Rule 608.

Please reach out to me if there are any additional questions about the Proposal.

Respectfully submitted,

Robert Books
Chair, Operating Committee of the LULD Plan

cc: Honorable Gary Gensler, Chair
Honorable Hester M. Peirce, Commissioner
Honorable Caroline A. Crenshaw, Commissioner
Honorable Mark T. Uyeda, Commissioner
Honorable Jaime Lizárraga, Commissioner
Haoxiang Zhu, Director of the Division of Trading and Markets