May 7, 2021

Vanessa A. Countryman
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: In the Matter of Cboe BZX Exchange, Inc. for an Order of Approval of Proposed Rule Change to List and Trade Shares of the 2x Long VIX Futures ETF (File No. SR-CboeBZX-2020-053); In the Matter of Cboe BZX Exchange, Inc. for an Order of Approval of Proposed Rule Change to List and Trade Shares of the -1x Short VIX Futures ETF (File No. SR-CboeBZX-2020-070)

Dear Ms. Countryman:

Better Markets appreciates the opportunity to comment on the above-captioned proposals released by the Securities and Exchange Commission ("SEC" or "Commission"). The Commission seeks comment on two proposed products from Cboe BZX Exchange, Inc. ("CBOE")—one that would target a return equivalent to holding an unleveraged short position in certain VIX futures contracts ("-1x VIX Product"), and another that would target a return equivalent to twice the return of the Long VIX Futures Index ("2x VIX Product") (collectively "CBOE VIX Products"). Although each of the CBOE VIX Products was approved by the staff of the Division of Trading and Markets pursuant to delegated authority,[1] the Commission has appropriately ordered a review of each and, per Commission Rule of Practice 431,[2] the approval of each is stayed pending the outcome of the review.

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1 Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing of Amendment Nos. 1 and 3 and Order Granting Accelerated Approval of a Proposed Rule Change, as Modified by Amendment Nos. 1 and 3, To List and Trade Shares of the -1x Short VIX Futures ETF Under BZX Rule 14.11(f)(4) (Trust Issued Receipts), 86 Fed. Reg. 13,939 (Mar. 11, 2021) ("-1x VIX Product Approval"); Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing of Amendment Nos. 2 and 4 and Order Granting Accelerated Approval of a Proposed Rule Change, as Modified by Amendment Nos. 2 and 4, To List and Trade Shares of the 2x Long VIX Futures ETF Under BZX Rule 14.11(f)(4) (Trust Issued Receipts), 86 Fed. Reg. 13,922 (Mar. 11, 2021) ("2x VIX Product Approval")

2 17 C.F.R. § 201.431.

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Better Markets appreciates the attention the Commission is devoting to examining the issues raised by the CBOE VIX Products, including those relating to the protection of investors and the markets. This scrutiny is essential with respect to products so inherently risky that the inventor of the underlying VIX index has expressed dismay and astonishment that such products exist in the marketplace at all.[3] The Commission should not approve the CBOE VIX Products (or any similar products) until the CBOE has addressed the myriad concerns raised by them in a robust and credible manner, something which has yet to happen.

BACKGROUND

CBOE first introduced the Volatility Index ("VIX"), intended to measure market expectations of near-term stock market volatility, in 1993.[4] Essentially, the VIX uses a complex model that evaluates options prices on a basket of stocks to gauge how much market volatility participants expect over the next 30 days.[5] Beginning in 2004, the CBOE began trading VIX futures,[6] even though the VIX was never intended to be a trading product or the basis for a trading product.[7] Products based on the VIX, including "inverse VIX" products that allowed investors to bet on lower volatility, proliferated, including among retail investors.[8]

On February 5, 2018, after years of low market volatility, and accordingly a low VIX, the VIX doubled, a market event popularly known as "Volmageddon.[9] One inverted VIX exchange-traded product ("ETP"), known as the VelocityShares Daily Inverse VIX Short-Term note ("XIV"), shrunk "from $1.9 billion in assets to $63 million in one session."[10] The nature of these products contributed directly to the market volatility. Essentially, VIX ETP products require rebalancing—basically, the issuer of a VIX ETP, in order to ensure that its exposure to the index is neutral, will need to buy VIX futures.[11] As market volatility remained low, more and more

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3 Max Abelson & Joe Weisenthal, *An Inventor of the VIX: 'I Don't Know Why These Products Exist*, Bloomberg (Feb. 6, 2018), https://www.bloomberg.com/news/articles/2018-02-06/an-inventor-of-the-vix-i-don-t-know-why-these-products-exist?sref=mtQ4hc2k.

4 Jin E. Xhang & Yingzi Zhu, *VIX Futures*, 26 J. Futures Markets 521, 522 (2006).

5 Robert E. Whaley, *The Investor Fear Gauge*, 26 J. Portfolio Mgmt. 12 (2000).

6 Jin E. Xhang & Yingzi Zhu, *VIX Futures*, 26 J. Futures Markets 521, 522 (2006).

7 Max Abelson & Joe Weisenthal, *An Inventor of the VIX: 'I Don't Know Why These Products Exist*, Bloomberg (Feb. 6, 2018), https://www.bloomberg.com/news/articles/2018-02-06/an-inventor-of-the-vix-i-don-t-know-why-these-products-exist?sref=mtQ4hc2k.

8 Saqib Iqmal Ahmed, *Black Monday for VIX ETPs Leaves Retail Players Smarting*, Reuters (Feb. 6, 2018), https://www.reuters.com/article/us-usa-stocks-volatility/black-monday-for-vix-etps-leaves-retail-players-smarting-idUSKBN1FQ261.

9 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon'*, Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

10 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon'*, Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

11 Patrick Augustin, et al., *Volmaggedon and the Failure of Short Volatility Products* (Apr. 6, 2021, Financial Analysts Journal, Forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3819342#:~:text=A%20case%20in%20point%20is,are%20highly%20concentrated%20and%20volatile.

investors, particularly retail investors, flocked to investments, such as the XIV[12] Few understood the complex rebalancing provisions of the products, and the unique risks it posed.[13] And as money flowed into those products, their "rebalancing needs intensified."[14] As a recent study has demonstrated, these rebalancing requirements "led to a feedback loop that pushed futures prices higher and quickly deepened each product's losses."[15] Moreover, the VIX volatility, "seemed to have a wider impact on markets, exacerbating the sell-off in stocks."[16] And unsurprisingly, it was retail investors, who had poured money into these complex products, who ended up suffering.[17]

Now CBOE is proposing to offer two additional products based on the VIX, the -1x VIX Product, which is similar in scope to the XIV and other inverted products that took significant losses in Volmaggedon, and the 2x VIX Product, a leveraged product that will amplify gains, and losses, based on the VIX index. Each of the CBOE VIX Products involves the sort of rebalancing that exacerbated volatility during Volmageddon.

COMMENTS

Under the Exchange Act, exchange rules, including new listings, must, among other things, "be designed...to protect investors and the public interest."[18] This requires a robust, meaningful, credible, evidence-based, independent analysis by the SEC demonstrating that the CBOE VIX Products are designed with sufficient protections to ensure that investors, particularly retail investors, will not face unreasonable risks from investments that appear deceptively attractive, but are in fact highly complex and risky. Similarly, it requires a credible analysis demonstrating that these products will not affect the integrity of the markets. This analysis has yet to be done. Accordingly, the SEC should not approve the CBOE VIX Products until such time as it has produced such an analysis for each of the CBOE VIX Products. Moreover, the SEC should take

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12 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

13 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019))(" In the retail crowd, nobody understood what a termination event even was. A lot of people didn't even understand the aspect of rebalancing."), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

14 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

15 Patrick Augustin, et al., *Volmaggedon and the Failure of Short Volatility Products* (Apr. 6, 2021, Financial Analysts Journal, Forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3819342#:~:text=A%20case%20in%20point%20is,are%20highly%20concentrated%20and%20volatile.

16 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

17 Saqib Iqmal Ahmed, *Black Monday for VIX ETPs Leaves Retail Players Smarting,* Reuters (Feb. 6, 2018), https://www.reuters.com/article/us-usa-stocks-volatility/black-monday-for-vix-etps-leaves-retail-players-smarting-idUSKBN1FQ261; Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

18 15 U.S.C. § 78f(b)(5).

this opportunity to develop a framework for analyzing products such as the CBOE VIX Products on a more holistic basis.

I. THE SEC MUST ENSURE THAT THE CBOE VIX PRODUCTS ARE NOT UNREASONABLY RISKY FOR INVESTORS, PARTICULARLY RETAIL INVESTORS

As noted above, retail investors suffered significant losses as a result of Volmaggedon, which in turn raised the question of what investor protections were necessary for VIX ETPs and other VIX-related investment products.[19] In particular, each of the proposed CBOE VIX Products contains the sorts of rebalancing provisions that were involved in the Volmageddon market event and that made those products so complex and difficult to understand, particularly for retail investors.[20]

Each of the proposed products also presents other investor protection concerns. The -1x VIX Product, an inverted VIX product, is similar to the XIV product which infamously suffered significant losses in Volmaggedon. The 2x VIX Product, is, as a leveraged product, by definition riskier than other products that are not leveraged. Surely the ability to earn returns 2 times greater than the return on the VIX will attract many investors, who may then in turn be surprised to see that their losses are amplified by a factor of 2 during periods of low volatility. Simply put, these and other VIX-related products pose significant investor protection concerns, concerns which have caused one of the inventors of VIX to question why such products even exist and are available to retail investors.[21]

The SEC has yet to adequately address these numerous consumer protection concerns for either of the CBOE VIX Products. Neither of the Approving Releases even so much as contains the phrase "retail investors." The only meaningful discussion of investor protection comes in the 2x VIX Product Approval, in response to a comment that cited negative returns for a similar product and cautioned "that a long position in the [2x VIX Product] will lose money during long bull markets."[22] In response, the 2x VIX Product Approval merely states that "the Commission does not believe that an assessment of whether another exchange-traded product was a profitable investment is relevant to a decision of whether the proposal to list and trade the Shares is consistent with the Act."[23] This observation is of dubious merit, but in any event, it certainly does not

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19 *See* Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

20 Luke Kawa, *The Day the VIX Doubled: Tales of 'Volmageddon',* Bloomberg (Feb. 6, 2019) (" Few of the retail investors who had snapped up these products seemed aware of this structural quirk in the way in which they operated."), https://www.bloomberg.com/news/articles/2019-02-06/the-day-the-vix-doubled-tales-of-volmageddon?sref=mtQ4hc2k.

21 Max Abelson & Joe Weisenthal, *An Inventor of the VIX: 'I Don't Know Why These Products Exist*, Bloomberg (Feb. 6, 2018) (" In my wildest imagination I don't know why these products exist. Who do they benefit? No one, except if someone wants to gamble –– then, OK, just go gamble…It's kind of sad that these products exist in the first place"), https://www.bloomberg.com/news/articles/2018-02-06/an-inventor-of-the-vix-i-don-t-know-why-these-products-exist?sref=mtQ4hc2k.

22 2x VIX Product Approval at 13,925.

23 2x VIX Product Approval at 13,925.

sufficiently address the myriad other investment protection concerns raised by the CBOE VIX Products. The SEC must conduct its own independent, credible, evidence-based analysis demonstrating that the proposed complex and risky products do not pose undue risk to investors, particularly retail investors.

II. THE SEC MUST ENSURE THAT THE CBOE VIX PRODUCTS DO NOT POSE RISKS TO THE FINANCIAL SYSTEM

Similarly, the SEC must address the threat to the markets that these products may pose. Volmageddon demonstrated that VIX-related products can pose broader risks to the market, not only investors. Specifically, as a recent analysis explained, the rebalancing requirements of the VIX products involved in Volmageddon—which are also present in each of the CBOE VIX Products—led to a "feedback loop" that exacerbated the situation, and which can destabilize markets more broadly.[24] Accordingly, such features, and other aspects of VIX-related products such as the CBOE VIX Products, demand careful scrutiny to ensure that the SEC is not approving products that amount to ticking time bombs capable of triggering destabilizing market events such as Volmageddon.

As with investor protection, an adequate analysis of whether the CBOE VIX Products pose risks to the financial system has yet to be performed by the SEC. While each of the Product Approvals contains more discussion of the products' impact on markets than of the investor protection concerns raised by the products, that discussion remains woefully inadequate. Specifically, the SEC must conduct its own independent, robust analysis demonstrating that the products contain adequate safeguards to ensure they cannot contribute unduly to financial instability. Unfortunately, the SEC's discussion of these issues falls far short of what is required, as illustrated by the following passage which contains the bulk of the SEC's analysis of the risks posed to the markets and the financial system from the CBOE VIX Products:

> The Commission believes that the Exchange's proposal regarding the rebalancing methodology of the Fund is reasonably designed to help mitigate the potential market impact of the Fund's daily rebalance demand during periods when there are large percentage increases in volatility. The Fund's proposed rebalancing process, including the Sponsor's commitment to cap participation in the VIX Futures Contracts market during any Rebalance Period to no more than 10% for all Funds, should help to temper the impact of the Funds' rebalances on the price of VIX Futures Contracts, particularly during periods of market volatility or illiquidity. The Commission believes the 10% participation cap strikes an appropriate balance between allowing the Funds to rebalance within a reasonably short period of time and managing the potential market impact of a large rebalance. Therefore, the Commission believes the Exchange's proposal is adequately designed to address the market impact concern.[25]

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[24] Patrick Augustin, et al., *Volmaggedon and the Failure of Short Volatility Products* (Apr. 6, 2021, Financial Analysts Journal, Forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3819342#:~:text=A%20case%20in%20point%20is,are%20highly%20concentrated%20and%20volatile.

[25] 2x VIX Product Approval at 13,925. The discussion in the –1x VIX Product Approval is substantially similar. -1x VIX Product Approval at 13,942.

This is not enough. Rather than a robust, independent analysis, this amounts to a conclusory, speculative discussion that is overly deferential to CBOE's self-serving claims. The SEC must not simply recite CBOE's own claims and then proclaim it agrees with those claims. Instead, the SEC must, at the very least: (1) independently assess the risks posed by products such as the CBOE VIX Products, (2) independently determine, based on a credible, evidence-based analysis, what sorts of guardrails would be appropriate to mitigate those risks, and (3) ensure that CBOE's proposal contains those guardrails.

III. THE SEC SHOULD DEVELOP A MORE HOLISTIC FRAMEWORK FOR ASSESSING VIX-RELATED AND OTHER POTENTIALLY RISKY AND DESTABILIZING PRODUCTS

The SEC should also take this opportunity to revisit how it approaches products like the CBOE VIX Products. Specifically, the SEC assesses proposals like CBOE's relatively narrowly, by assessing the risks posed by each product more or less in isolation. However, particularly as it relates to systemic risks, these products cannot be viewed in isolation, but must be viewed cumulatively. In other words, a single VIX-related product may, in isolation, not pose significant systemic risk. But these products do not exist in isolation; they are instead part of a dynamic marketplace. The SEC should consider adopting a framework for analyzing proposals in light of that dynamic marketplace, which includes the possibility that approval of one product will lead to a proliferation of similar products with similar features, which in combination would pose a material risk to financial stability, even if none of the products, in isolation, would. Absent such a framework, the SEC may, through a series of isolated product approvals, find that it has allowed a dangerous, cumulative level of risk to build up in the market, in violation of its duty under the law to protect and preserve the integrity of the markets.

For example, if the SEC approves the CBOE VIX Products, this will likely lead to others in the industry seeking approval of substantially similar products. Under its current approach, the SEC may view those additional products in isolation, failing to adequately account for the fact that the proliferation of the products may, itself, pose undue risk to the financial system. And if it later rejects similar products, it may face successful legal challenges from industry based on the contention that the SEC's rejection of a product that is substantially similar to one or more products it has already approved is "arbitrary and capricious." The SEC can mitigate these risks by establishing a framework that makes it clear it will assess products such as the CBOE VIX Products on an individual ***and*** holistic basis that considers the risks posed by such products within the context of a dynamic financial system, rather than just in isolation.

CONCLUSION

We hope you find these comments helpful.

Sincerely,

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