SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-94080; File No. SR-CboeBZX-2021-039)

January 27, 2022

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Order Disapproving a Proposed Rule Change to List and Trade Shares of the Wise Origin Bitcoin Trust under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares

I. INTRODUCTION

On May 10, 2021, Cboe BZX Exchange, Inc. ("BZX" or "Exchange") filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Exchange Act")[1] and Rule 19b-4 thereunder,[2] a proposed rule change to list and trade shares ("Shares") of the Wise Origin Bitcoin Trust ("Trust") under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares. The proposed rule change was published for comment in the Federal Register on June 1, 2021.[3]

On July 13, 2021, pursuant to Section 19(b)(2) of the Exchange Act,[4] the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to disapprove the proposed rule change.[5] On August 23, 2021, the Commission instituted proceedings under Section 19(b)(2)(B) of the Exchange Act[6] to determine whether to approve or disapprove the proposed

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1 15 U.S.C. 78s(b)(1).

2 17 CFR 240.19b-4.

3 See Securities Exchange Act Release No. 91994 (May 25, 2021), 86 FR 29321 ("Notice"). Comments on the proposed rule change can be found at: https://www.sec.gov/comments/sr-cboebzx-2021-039/srcboebzx2021039.htm.

4 15 U.S.C. 78s(b)(2).

5 See Securities Exchange Act Release No. 92388, 86 FR 38163 (July 19, 2021).

6 15 U.S.C. 78s(b)(2)(B).

rule change.[7] On November 15, 2021, the Commission designated a longer period for Commission action on the proposed rule change.[8]

This order disapproves the proposed rule change. The Commission concludes that BZX has not met its burden under the Exchange Act and the Commission's Rules of Practice to demonstrate that its proposal is consistent with the requirements of Exchange Act Section 6(b)(5), and in particular, the requirement that the rules of a national securities exchange be "designed to prevent fraudulent and manipulative acts and practices" and "to protect investors and the public interest."[9]

When considering whether BZX's proposal to list and trade the Shares is designed to prevent fraudulent and manipulative acts and practices, the Commission applies the same standard used in its orders considering previous proposals to list bitcoin[10]-based commodity trusts and bitcoin-based trust issued receipts.[11] As the Commission has explained, an exchange

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7 See Securities Exchange Act Release No. 92721, 86 FR 48272 (Aug. 27, 2021).

8 See Securities Exchange Act Release No. 93571, 86 FR 64979 (Nov. 19, 2021). On December 27, 2021, the Exchange filed Amendment No. 1 to the proposal. As discussed below, however, see Section III.E, infra, the Commission views this amendment as untimely. Furthermore, even if this amendment had been timely filed, it would not alter the Commission's conclusion that the Exchange's proposal is not consistent with the Exchange Act. See Section III.E.

9 15 U.S.C. 78f(b)(5).

10 Bitcoins are digital assets that are issued and transferred via a decentralized, open-source protocol used by a peer-to-peer computer network through which transactions are recorded on a public transaction ledger known as the "bitcoin blockchain." The bitcoin protocol governs the creation of new bitcoins and the cryptographic system that secures and verifies bitcoin transactions. See, e.g., Notice, 86 FR at 29321.

11 See Order Setting Aside Action by Delegated Authority and Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, To List and Trade Shares of the Winklevoss Bitcoin Trust, Securities Exchange Act Release No. 83723 (July 26, 2018), 83 FR 37579 (Aug. 1, 2018) (SR-BatsBZX-2016-30) ("Winklevoss Order"); Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, To Amend NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares) and To List and Trade

that lists bitcoin-based exchange-traded products ("ETPs") can meet its obligations under Exchange Act Section 6(b)(5) by demonstrating that the exchange has a comprehensive surveillance-sharing agreement with a regulated market of significant size related to the underlying or reference bitcoin assets.[12]

Shares of the United States Bitcoin and Treasury Investment Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 88284 (Feb. 26, 2020), 85 FR 12595 (Mar. 3, 2020) (SR-NYSEArca-2019-39) ("USBT Order"); Order Disapproving a Proposed Rule Change To List and Trade Shares of the WisdomTree Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93700 (Dec. 1, 2021), 86 FR 69322 (Dec. 7, 2021) (SR-CboeBZX-2021-024) ("WisdomTree Order"); Order Disapproving a Proposed Rule Change To List and Trade Shares of the Kryptoin Bitcoin ETF Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93860 (Dec. 22, 2021), 86 FR 74166 (Dec. 29, 2021) (SR-CboeBZX-2021-029); Order Disapproving a Proposed Rule Change To List and Trade Shares of the Valkyrie Bitcoin Fund Under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares), Securities Exchange Act Release No. 93859 (Dec. 22, 2021), 86 FR 74156 (Dec. 29, 2021) (SR-NYSEArca-2021-31); Order Disapproving a Proposed Rule Change to List and Trade Shares of the First Trust SkyBridge Bitcoin ETF Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 94006 (Jan. 20, 2022), 87 FR 3869 (Jan. 25, 2022) (SR-NYSEArca-2021-37). See also Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the SolidX Bitcoin Trust Under NYSE Arca Equities Rule 8.201, Securities Exchange Act Release No. 80319 (Mar. 28, 2017), 82 FR 16247 (Apr. 3, 2017) (SR-NYSEArca-2016-101) ("SolidX Order"). The Commission also notes that orders were issued by delegated authority on the following matters: Order Disapproving a Proposed Rule Change To List and Trade the Shares of the ProShares Bitcoin ETF and the ProShares Short Bitcoin ETF, Securities Exchange Act Release No. 83904 (Aug. 22, 2018), 83 FR 43934 (Aug. 28, 2018) (SR-NYSEArca-2017-139) ("ProShares Order"); Order Disapproving a Proposed Rule Change To List and Trade the Shares of the GraniteShares Bitcoin ETF and the GraniteShares Short Bitcoin ETF, Securities Exchange Act Release No. 83913 (Aug. 22, 2018), 83 FR 43923 (Aug. 28, 2018) (SR-CboeBZX-2018-001) ("GraniteShares Order"); Order Disapproving a Proposed Rule Change To List and Trade Shares of the VanEck Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93559 (Nov. 12, 2021), 86 FR 64539 (Nov. 18, 2021) (SR-CboeBZX-2021-019).

12 See USBT Order, 85 FR at 12596. See also Winklevoss Order, 83 FR at 37592 n.202 and accompanying text (discussing previous Commission approvals of commodity-trust ETPs); GraniteShares Order, 83 FR at 43925-27 nn.35-39 and accompanying text (discussing previous Commission approvals of commodity-futures ETPs).

The standard requires such surveillance-sharing agreements since they "provide a necessary deterrent to manipulation because they facilitate the availability of information needed to fully investigate a manipulation if it were to occur."[13] The Commission has emphasized that it is essential for an exchange listing a derivative securities product to enter into a surveillance-sharing agreement with markets trading the underlying assets for the listing exchange to have the ability to obtain information necessary to detect, investigate, and deter fraud and market manipulation, as well as violations of exchange rules and applicable federal securities laws and rules.[14] The hallmarks of a surveillance-sharing agreement are that the agreement provides for the sharing of information about market trading activity, clearing activity, and customer identity; that the parties to the agreement have reasonable ability to obtain access to and produce requested information; and that no existing rules, laws, or practices would impede one party to the agreement from obtaining this information from, or producing it to, the other party.[15]

In the context of this standard, the terms "significant market" and "market of significant size" include a market (or group of markets) as to which (a) there is a reasonable likelihood that a person attempting to manipulate the ETP would also have to trade on that market to successfully manipulate the ETP, so that a surveillance-sharing agreement would assist in

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13 See Amendment to Rule Filing Requirements for Self-Regulatory Organizations Regarding New Derivative Securities Products, Securities Exchange Act Release No. 40761 (Dec. 8, 1998), 63 FR 70952, 70959 (Dec. 22, 1998) ("NDSP Adopting Release"). See also Winklevoss Order, 83 FR at 37594; ProShares Order, 83 FR at 43936; GraniteShares Order, 83 FR at 43924; USBT Order, 85 FR at 12596.

14 See NDSP Adopting Release, 63 FR at 70959.

15 See Winklevoss Order, 83 FR at 37592-93; Letter from Brandon Becker, Director, Division of Market Regulation, Commission, to Gerard D. O'Connell, Chairman, Intermarket Surveillance Group (June 3, 1994), available at https://www.sec.gov/divisions/marketreg/mr-noaction/isg060394.htm.

detecting and deterring misconduct, and (b) it is unlikely that trading in the ETP would be the predominant influence on prices in that market.[16] A surveillance-sharing agreement must be entered into with a "significant market" to assist in detecting and deterring manipulation of the ETP, because a person attempting to manipulate the ETP is reasonably likely to also engage in trading activity on that "significant market."[17]

Consistent with this standard, for the commodity-trust ETPs approved to date for listing and trading, there has been in every case at least one significant, regulated market for trading futures on the underlying commodity—whether gold, silver, platinum, palladium, or copper—and the ETP listing exchange has entered into surveillance-sharing agreements with, or held Intermarket Surveillance Group ("ISG") membership in common with, that market.[18] Moreover, the surveillance-sharing agreements have been consistently present whenever the Commission has approved the listing and trading of derivative securities, even where the underlying securities were also listed on national securities exchanges—such as options based on an index of stocks traded on a national securities exchange—and were thus subject to the Commission's direct regulatory authority.[19]

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16 See Winklevoss Order, 83 FR at 37594. This definition is illustrative and not exclusive. There could be other types of "significant markets" and "markets of significant size," but this definition is an example that will provide guidance to market participants. See id.

17 See USBT Order, 85 FR at 12597.

18 See Winklevoss Order, 83 FR at 37594.

19 See USBT Order, 85 FR at 12597; Securities Exchange Act Release No. 33555 (Jan. 31, 1994), 59 FR 5619, 5621 (Feb. 7, 1994) (SR-Amex-93-28) (order approving listing of options on American Depository Receipts ("ADRs")). The Commission has also required a surveillance-sharing agreement in the context of index options even when (i) all of the underlying index component stocks were either registered with the Commission or exempt from registration under the Exchange Act; (ii) all of the underlying index component stocks traded in the U.S. either directly or as ADRs on a national securities exchange; and (iii) effective international ADR arbitrage alleviated concerns over the

Listing exchanges have also attempted to demonstrate that other means besides surveillance-sharing agreements will be sufficient to prevent fraudulent and manipulative acts and practices, including that the bitcoin market as a whole or the relevant underlying bitcoin market is "uniquely" and "inherently" resistant to fraud and manipulation.[20] In response, the Commission has agreed that, if a listing exchange could establish that the underlying market inherently possesses a unique resistance to manipulation beyond the protections that are utilized by traditional commodity or securities markets, it would not necessarily need to enter into a surveillance-sharing agreement with a regulated significant market.[21] Such resistance to fraud and manipulation, however, must be novel and beyond those protections that exist in traditional commodity markets or equity markets for which the Commission has long required surveillance-

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relatively smaller ADR trading volume, helped to ensure that ADR prices reflected the pricing on the home market, and helped to ensure more reliable price determinations for settlement purposes, due to the unique composition of the index and reliance on ADR prices. See Securities Exchange Act Release No. 26653 (Mar. 21, 1989), 54 FR 12705, 12708 (Mar. 28, 1989) (SR-Amex-87-25) (stating that "surveillance-sharing agreements between the exchange on which the index option trades and the markets that trade the underlying securities are necessary" and that "[t]he exchange of surveillance data by the exchange trading a stock index option and the markets for the securities comprising the index is important to the detection and deterrence of intermarket manipulation."). And the Commission has required a surveillance-sharing agreement even when approving options based on an index of stocks traded on a national securities exchange. See Securities Exchange Act Release No. 30830 (June 18, 1992), 57 FR 28221, 28224 (June 24, 1992) (SR-Amex-91-22) (stating that surveillance-sharing agreements "ensure the availability of information necessary to detect and deter potential manipulations and other trading abuses").

20 See USBT Order, 85 FR at 12597.

21 See Winklevoss Order, 83 FR at 37580, 37582-91 (addressing assertions that "bitcoin and bitcoin [spot] markets" generally, as well as one bitcoin trading platform specifically, have unique resistance to fraud and manipulation); see also USBT Order, 85 FR at 12597.

sharing agreements in the context of listing derivative securities products.[22] No listing exchange has satisfied its burden to make such demonstration.[23]

Here, BZX contends that approval of the proposal is consistent with Section 6(b)(5) of the Exchange Act, in particular Section 6(b)(5)'s requirement that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices and to protect investors and the public interest.[24] As discussed in more detail below, BZX asserts that the proposal is consistent with Section 6(b)(5) of the Exchange Act because the Exchange has a comprehensive surveillance-sharing agreement with a regulated market of significant size,[25] and there exist other means to prevent fraudulent and manipulative acts and practices that are sufficient to justify dispensing with the requisite surveillance-sharing agreement.[26]

Although BZX recognizes the Commission's focus on potential manipulation of bitcoin ETPs in prior disapproval orders, BZX argues that such manipulation concerns have been sufficiently mitigated.[27] Specifically, as discussed in more detail below, the Exchange asserts that the significant increase in trading volume in bitcoin futures on the Chicago Mercantile Exchange ("CME"), the growth of liquidity in the spot market for bitcoin, and certain features of the Shares and the Index (as defined herein) mitigate potential manipulation concerns and should be the central consideration as the Commission determines whether to approve this proposal.[28]

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22 See USBT Order, 85 FR at 12597.

23 See supra note 11.

24 See Notice, 86 FR at 29331.

25 See id. at 29332.

26 See id. at 29332-33.

27 See id. at 29324, 29327.

28 See id. at 29327.

Further, BZX believes that the proposal would give U.S. investors access to bitcoin in a regulated and transparent exchange-traded vehicle that would act to limit risk to U.S. investors. According to BZX, the proposed listing and trading of the Shares would mitigate risk by: (i) reducing premium and discount volatility; (ii) reducing management fees through meaningful competition; (iii) reducing certain risks associated with investing in operating companies that are proxies for bitcoin exposure; and (iv) providing an alternative to custodying spot bitcoin.[29]

In the analysis that follows, the Commission examines whether the proposed rule change is consistent with Section 6(b)(5) of the Exchange Act by addressing: in Section III.B.1 assertions that other means besides surveillance-sharing agreements will be sufficient to prevent fraudulent and manipulative acts and practices; in Section III.B.2 assertions that BZX has entered into a comprehensive surveillance-sharing agreement with a regulated market of significant size related to bitcoin; and in Section III.C assertions that the proposal is consistent with the protection of investors and the public interest.

Based on its analysis, the Commission concludes that BZX has not established that other means to prevent fraudulent and manipulative acts and practices are sufficient to justify dispensing with the requisite surveillance-sharing agreement. The Commission further concludes that BZX has not established that it has a comprehensive surveillance-sharing agreement with a regulated market of significant size related to bitcoin. As discussed further below, BZX repeats various assertions made in prior bitcoin-based ETP proposals that the Commission has previously addressed and rejected—and more importantly, BZX does not respond to the Commission's reasons for rejecting those assertions but merely repeats them. As a result, the

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[29] See id. at 29324.

Commission is unable to find that the proposed rule change is consistent with the statutory requirements of Exchange Act Section 6(b)(5).

The Commission again emphasizes that its disapproval of this proposed rule change does not rest on an evaluation of whether bitcoin, or blockchain technology more generally, has utility or value as an innovation or an investment. Rather, the Commission is disapproving this proposed rule change because, as discussed below, BZX has not met its burden to demonstrate that its proposal is consistent with the requirements of Exchange Act Section 6(b)(5).

II. DESCRIPTION OF THE PROPOSED RULE CHANGE

As described in more detail in the Notice,[30] the Exchange proposes to list and trade the Shares of the Trust under BZX Rule 14.11(e)(4), which governs the listing and trading of Commodity-Based Trust Shares on the Exchange.

The investment objective of the Trust is to seek to track the performance of bitcoin, as measured by the Fidelity Bitcoin Index PR ("Index"), adjusted for the Trust's expenses and other liabilities.[31] Each Share will represent a fractional undivided beneficial interest in and ownership

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30 See Notice, supra note 3. See also draft Registration Statement on Form S-1, dated March 24, 2021, submitted to the Commission by the Sponsor on behalf of the Trust ("Registration Statement").

31 FD Funds Management LLC ("Sponsor") is the sponsor of the Trust, Delaware Trust Company is the trustee, and Fidelity Service Company, Inc. will be the administrator ("Administrator"). A third-party transfer agent will facilitate the issuance and redemption of Shares of the Trust, respond to correspondence by Trust shareholders and others relating to its duties, maintain shareholder accounts, and make periodic reports to the Trust. An affiliate of the Sponsor, Fidelity Distributors Corporation, will be the marketing agent in connection with the creation and redemption of "baskets" of Shares, and the Sponsor will provide assistance in the marketing of the Shares. Fidelity Digital Asset Services, LLC will serve as the Trust's custodian ("Custodian"). The Index methodology was developed by Fidelity Product Services, LLC ("Index Provider") and is administered by the Fidelity Index Committee. Coin Metrics, Inc. is the third-party calculation agent for the Index. The Sponsor's affiliates have an ownership interest in Coin Metrics, Inc. See Notice, 86 FR at 29321, 29327 n.57, 29328-29, 29329 n.63.

of the Trust. The Trust's assets will consist of bitcoin held by the Custodian on behalf of the Trust. The Trust generally does not intend to hold cash or cash equivalents. However, there may be situations where the Trust will unexpectedly hold cash on a temporary basis.[32]

In seeking to achieve its investment objective, the Trust would hold bitcoin and value its Shares daily as of 4:00 p.m. E.T. using the same methodology used to calculate the Index. The Index is designed to reflect the performance of bitcoin in U.S. dollars and is calculated using bitcoin price feeds from eligible bitcoin spot platforms. The current platform composition of the Index is Bitstamp, Coinbase, Gemini, itBit, and Kraken. The Index market value would be the volume-weighted median price of bitcoin in U.S. dollars over the previous five minutes, which would be calculated by (1) ordering all individual transactions on eligible spot platforms over the previous five minutes by price, and then (2) selecting the price associated with the 50th percentile of total volume.[33]

The net asset value ("NAV") of the Trust is the total assets of the Trust including, but not limited to, all bitcoin and cash, if any, less total liabilities of the Trust, each determined on the basis of generally accepted accounting principles. The NAV per Share of the Trust would be calculated by taking the fair market value of its total assets based on the volume-weighted median price of bitcoin used for the calculation of the Index, subtracting any liabilities (which include accrued expenses), and dividing that total by the total number of outstanding Shares. The Administrator would calculate the NAV of the Trust once each Exchange trading day. The NAV for a normal trading day will be released after 4:00 p.m. E.T.[34]

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32 See id. at 29328.

33 See id. at 29329.

34 See id. at 29329-30.

The Trust will provide information regarding the Trust's bitcoin holdings, as well as an Intraday Indicative Value ("IIV") per Share updated every 15 seconds, as calculated by the Exchange or a third-party financial data provider during the Exchange's Regular Trading Hours (9:30 a.m. to 4:00 p.m. E.T.). The IIV will be calculated by using the prior day's closing NAV per Share as a base and updating that value during Regular Trading Hours to reflect changes in the value of the Trust's bitcoin holdings during the trading day.[35]

When the Trust sells or redeems its Shares, it will do so in "in-kind" transactions in blocks of Shares. When creating the Shares, authorized participants will deliver, or facilitate the delivery of, bitcoin to the Trust's account with the Custodian in exchange for the Shares, and when redeeming the Shares, the Trust, through the Custodian, will deliver bitcoin to such authorized participants.[36]

III. DISCUSSION

A. The Applicable Standard for Review

The Commission must consider whether BZX's proposal is consistent with the Exchange Act. Section 6(b)(5) of the Exchange Act requires, in relevant part, that the rules of a national securities exchange be designed "to prevent fraudulent and manipulative acts and practices" and "to protect investors and the public interest."[37] Under the Commission's Rules of Practice, the

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35 See id. at 29329.

36 See id. at 29328-29.

37 15 U.S.C. 78f(b)(5). Pursuant to Section 19(b)(2) of the Exchange Act, 15 U.S.C. 78s(b)(2), the Commission must disapprove a proposed rule change filed by a national securities exchange if it does not find that the proposed rule change is consistent with the applicable requirements of the Exchange Act. Exchange Act Section 6(b)(5) states that an exchange shall not be registered as a national securities exchange unless the Commission determines that "[t]he rules of the exchange are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling,

"burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the self-regulatory organization ['SRO'] that proposed the rule change."[38]

The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[39] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Exchange Act and the applicable rules and regulations.[40] Moreover, "unquestioning reliance" on an SRO's representations in a proposed rule change is not sufficient to justify Commission approval of a proposed rule change.[41]

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processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest; and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers, or to regulate by virtue of any authority conferred by this title matters not related to the purposes of this title or the administration of the exchange." 15 U.S.C. 78f(b)(5).

38 Rule 700(b)(3), Commission Rules of Practice, 17 CFR 201.700(b)(3).

39 See id.

40 See id.

41 Susquehanna Int'l Group, LLP v. Securities and Exchange Commission, 866 F.3d 442, 447 (D.C. Cir. 2017) ("Susquehanna").

B. Whether BZX Has Met Its Burden to Demonstrate That the Proposal Is Designed to Prevent Fraudulent and Manipulative Acts and Practices

(1) Assertions That Other Means Besides Surveillance-Sharing Agreements Will Be Sufficient to Prevent Fraudulent and Manipulative Acts and Practices

As stated above, the Commission has recognized that a listing exchange could demonstrate that other means to prevent fraudulent and manipulative acts and practices are sufficient to justify dispensing with a comprehensive surveillance-sharing agreement with a regulated market of significant size, including by demonstrating that the bitcoin market as a whole or the relevant underlying bitcoin market is uniquely and inherently resistant to fraud and manipulation.[42] Such resistance to fraud and manipulation must be novel and beyond those protections that exist in traditional commodities or securities markets.[43]

BZX asserts that bitcoin is resistant to price manipulation. According to BZX, the geographically diverse and continuous nature of bitcoin trading render it difficult and prohibitively costly to manipulate the price of bitcoin.[44] Fragmentation across bitcoin platforms, the relatively slow speed of transactions, and the capital necessary to maintain a significant presence on each trading platform make manipulation of bitcoin prices through continuous trading activity challenging.[45] To the extent that there are bitcoin platforms engaged in, or allowing, wash trading or other activity intended to manipulate the price of bitcoin on other

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42 See USBT Order, 85 FR at 12597 n.23. The Commission is not applying a "cannot be manipulated" standard. Instead, the Commission is examining whether the proposal meets the requirements of the Exchange Act and, pursuant to its Rules of Practice, places the burden on the listing exchange to demonstrate the validity of its contentions and to establish that the requirements of the Exchange Act have been met. See id.

43 See id. at 12597.

44 See Notice, 86 FR at 29327 n.51.

45 See id.

markets, such pricing does not normally impact prices on other platforms because participants will generally ignore markets with quotes that they deem non-executable.[46] BZX further argues that the linkage between the bitcoin markets and the presence of arbitrageurs in those markets means that the manipulation of the price of bitcoin on any single venue would require manipulation of the global bitcoin price in order to be effective.[47] Arbitrageurs must have funds distributed across multiple trading platforms in order to take advantage of temporary price dislocations, thereby making it unlikely that there will be strong concentration of funds on any particular bitcoin trading venue.[48] As a result, BZX concludes that "the potential for manipulation on a [bitcoin] trading platform would require overcoming the liquidity supply of such arbitrageurs who are effectively eliminating any cross-market pricing differences."[49]

As with the previous proposals, the Commission here concludes that the record does not support a finding that the bitcoin market is inherently and uniquely resistant to fraud and manipulation. BZX asserts that, because of how bitcoin trades occur, including through continuous means and through fragmented platforms, arbitrage across the bitcoin platforms essentially helps to keep global bitcoin prices aligned with one another, thus hindering manipulation. The Exchange, however, does not provide any data or analysis to support its assertions, either in terms of how closely bitcoin prices are aligned across different bitcoin trading venues or how quickly price disparities may be arbitraged away.[50] As stated above,

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46 See id.

47 See id.

48 See id.

49 See id.

50 For example, the Registration Statement states that "[a]s the use of digital asset networks increases without a corresponding increase in throughput of the networks, average fees and settlement times can increase significantly," and that such "[i]ncreased fees and

"unquestioning reliance" on an SRO's representations in a proposed rule change is not sufficient to justify Commission approval of a proposed rule change.[51]

Efficient price arbitrage, moreover, is not sufficient to support the finding that a market is uniquely and inherently resistant to manipulation such that the Commission can dispense with surveillance-sharing agreements.[52] The Commission has stated, for example, that even for equity options based on securities listed on national securities exchanges, the Commission relies on surveillance-sharing agreements to detect and deter fraud and manipulation.[53] Here, the Exchange provides no evidence to support its assertion of efficient price arbitrage across bitcoin platforms, let alone any evidence that price arbitrage in the bitcoin market is novel or unique so as to warrant the Commission dispensing with the requirement of a surveillance-sharing agreement. Moreover, BZX does not take into account that a market participant with a dominant ownership position would not find it prohibitively expensive to overcome the liquidity supplied by arbitrageurs and could use dominant market share to engage in manipulation.[54]

In addition, the Exchange makes the unsupported claim that bitcoin prices on platforms with wash trades or other activity intended to manipulate the price of bitcoin do not influence the

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decreased settlement speeds . . . could adversely impact the value of the Shares." See Registration Statement at 15. BZX does not provide data or analysis to address, among other things, whether such risks of increased fees and bitcoin transaction settlement times may affect the arbitrage effectiveness that BZX asserts. See also infra note 64 and accompanying text (referencing statements made in the Registration Statement that contradict assertions made by BZX).

51 See supra note 41.

52 See Winklevoss Order, 83 FR at 37586; SolidX Order, 82 FR at 16256-57; USBT Order, 85 FR at 12601.

53 See, e.g., USBT Order, 85 FR at 12601.

54 See, e.g., Winklevoss Order, 83 FR at 37584; USBT Order, 85 FR at 12600-01.

"real" price of bitcoin. The Exchange also asserts that, to the extent that there are bitcoin platforms engaged in or allowing wash trading or other manipulative activities, market participants will generally ignore those platforms. However, without the necessary data or other evidence, the Commission has no basis on which to conclude that bitcoin platforms are insulated from prices of others that engage in or permit fraud or manipulation.[55]

Additionally, the continuous nature of bitcoin trading does not eliminate manipulation risk, and neither do linkages among markets, as BZX asserts.[56] Even in the presence of continuous trading or linkages among markets, formal (such as those with consolidated quotations or routing requirements) or otherwise (such as in the context of the fragmented, global bitcoin markets), manipulation of asset prices, as a general matter, can occur simply through trading activity that creates a false impression of supply or demand.[57]

BZX also argues that the significant liquidity in the bitcoin spot market and the impact of market orders on the overall price of bitcoin mean that attempting to move the price of bitcoin is costly and has grown more expensive over the past year.[58] According to BZX, in January 2020, for example, the cost to buy or sell $5 million worth of bitcoin averaged roughly 30 basis points (compared to 10 basis points in February 2021) with a market impact of 50 basis points (compared to 30 basis points in February 2021). For a $10 million market order, the cost to buy or sell was roughly 50 basis points (compared to 20 basis points in February 2021) with a market impact of 80 basis points (compared to 50 basis points in February 2021). BZX contends that as

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55 See USBT Order, 85 FR at 12601.

56 See Winklevoss Order, 83 FR at 37585 n.92 and accompanying text.

57 See id. at 37585.

58 See Notice, 86 FR at 29328.

the liquidity in the bitcoin spot market increases, it follows that the impact of $5 million and $10 million orders will continue to decrease.[59]

However, the data furnished by BZX regarding the cost to move the price of bitcoin, and the market impact of such attempts, are incomplete. BZX does not provide meaningful analysis pertaining to how these figures compare to other markets or why one must conclude, based on the numbers provided, that the bitcoin market is costly to manipulate. Further, BZX's analysis of the market impact of a mere two sample transactions is not sufficient evidence to conclude that the bitcoin market is resistant to manipulation.[60] Even assuming that the Commission agreed with BZX's premise, that it is costly to manipulate the bitcoin market and it is becoming increasingly so, any such evidence speaks only to establish that there is some resistance to manipulation, not that it establishes unique resistance to manipulation to warrant dispensing with the standard surveillance-sharing agreement.[61] The Commission thus concludes that the record does not demonstrate that the nature of bitcoin trading renders the bitcoin market inherently and uniquely resistant to fraud and manipulation.

Moreover, BZX does not sufficiently contest the presence of possible sources of fraud and manipulation in the bitcoin spot market generally that the Commission has raised in previous orders, which have included (1) "wash" trading,[62] (2) persons with a dominant position in bitcoin

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59 See id.

60 Aside from stating that the "statistics are based on samples of bitcoin liquidity in USD (excluding stablecoins or Euro liquidity) based on executable quotes on Coinbase Pro, Gemini, Bitstamp, Kraken, LMAX Exchange, BinanceUS, and OKCoin during February 2021," the Exchange provides no other information pertaining to the methodology used to enable the Commission to evaluate these findings or their significance. See id. at 29328 nn.58-59.

61 See USBT Order, 85 FR at 12601.

62 See supra note 55 and accompanying text.

manipulating bitcoin pricing, (3) hacking of the bitcoin network and trading platforms, (4) malicious control of the bitcoin network, (5) trading based on material, non-public information, including the dissemination of false and misleading information, (6) manipulative activity involving the purported "stablecoin" Tether ("USDT"), and (7) fraud and manipulation at bitcoin trading platforms.[63]

In addition, BZX does not address risk factors specific to the bitcoin blockchain and bitcoin platforms, described in the Trust's Registration Statement, that undermine the argument that the bitcoin market is inherently resistant to fraud and manipulation. For example, the Registration Statement acknowledges that "[platforms] on which bitcoin trades are relatively new and largely unregulated, and, therefore, may be more exposed to fraud and security breaches than established, regulated exchanges for other financial assets or instruments"; that "[o]ver the past several years, a number of bitcoin spot markets have been closed or faced issues due to fraud, failure, security breaches or governmental regulations"; that "[t]he nature of the assets held at bitcoin spot markets makes them appealing targets for hackers and a number of bitcoin spot markets have been victims of cybercrimes" and that "[n]o bitcoin [platform] is immune from these risks"; that "many [bitcoin] spot markets lack certain safeguards put in place by more traditional exchanges to enhance the stability of trading on the [platform]"; that "[a] lack of stability in the bitcoin spot markets, manipulation of bitcoin spot markets by customers and/or the closure or temporary shutdown of such [platforms] due to fraud, business failure, hackers or malware, or government-mandated regulation may reduce confidence in bitcoin generally and

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63 See USBT Order, 85 FR at 12600-01 & nn.66-67 (discussing J. Griffin & A. Shams, Is Bitcoin Really Untethered? (October 28, 2019), available at https://ssrn.com/abstract=3195066 and published in 75 J. Finance 1913 (2020)); Winklevoss Order, 83 FR at 37585-86.

result in greater volatility in the market price of bitcoin and the Shares of the Trust" and that such "closure or temporary shutdown of a bitcoin spot market may impact the Trust's ability to determine the value of its bitcoin holdings or for the Trust's [a]uthorized [p]articipants to effectively arbitrage the Trust's Shares"; that "[t]he potential consequences of a spot market's failure or failure to prevent market manipulation could adversely affect the value of the Shares"; that many spot markets and over-the-counter ("OTC") market venues "do not provide the public with significant information regarding their ownership structure, management teams, corporate practices or oversight of customer trading"; and that the bitcoin blockchain could be vulnerable to a "51% attack," in which a bad actor or actors that control a majority of the processing power dedicated to mining on the bitcoin network may be able to alter the bitcoin blockchain on which the bitcoin network and bitcoin transactions rely."[64]

BZX also asserts that other means to prevent fraud and manipulation are sufficient to justify dispensing with the requisite surveillance-sharing agreement. The Exchange mentions that the Index, which is used to value the Trust's bitcoin, is itself resistant to manipulation based on the Index's methodology, as described above.[65] According to the Exchange, "using rolling five-minute segments [to calculate the Index] means malicious actors would need to sustain efforts to manipulate the market over an extended period of time, or would need to replicate efforts multiple times across exchanges, potentially triggering review."[66] The use of a median price reduces the ability of outlier prices to impact the NAV, as it systematically excludes those prices

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64 See Registration Statement at 3, 8-9, 13. See also Winklevoss Order, 83 FR at 37585.

65 See Notice, 86 FR at 29328.

66 See id. at 29329. According to the Exchange, this extended period also supports authorized participant activity by capturing volume over a longer time period, rather than forcing authorized participants to mark an individual close or auction. See id.

from the NAV calculation. The Exchange asserts that the use of a volume-weighted median (as opposed to a traditional median) serves as an additional protection against attempts to manipulate the NAV by executing a large number of low-dollar trades, because any manipulation attempt would have to involve a majority of global spot bitcoin volume in a three-minute window to have any influence on the NAV.[67] Further, removing the highest and lowest prices further protects against attempts to manipulate the NAV, requiring bad actors to act on multiple exchanges at once to have any ability to influence the price.[68]

Simultaneously with the Exchange's assertions regarding the Index, the Exchange also states that, because the Trust will engage in in-kind creations and redemptions, the "manipulability of the Index [is] significantly less important."[69] The Exchange elaborates further that, "because the Trust will not accept cash to buy bitcoin in order to create new shares or… be forced to sell bitcoin to pay cash for redeemed shares, the price that the Sponsor uses to value the Trust's bitcoin is not particularly important."[70] According to BZX, when authorized participants create Shares with the Trust, they would need to deliver a certain number of bitcoin per share (regardless of the valuation used), and when they redeem with the Trust, they would similarly expect to receive a certain number of bitcoin per share.[71] As such, BZX argues that even if the price used to value the Trust's bitcoin is manipulated, the ratio of bitcoin per Share does not change, and the Trust will either accept (for creations) or distribute (for redemptions) the same

67 See id.

68 See id.

69 See id. at 29328.

70 See id.

71 See id.

number of bitcoin regardless of the value.[72] This, according to BZX, not only mitigates the risk associated with potential manipulation, but also discourages and disincentivizes manipulation of the Index because there is little financial incentive to do so.[73]

Based on assertions made and the information provided, the Commission can find no basis to conclude that BZX has articulated other means to prevent fraud and manipulation that are sufficient to justify dispensing with the requisite surveillance-sharing agreement.

First, the record does not demonstrate that the proposed methodology for calculating the Index would make the proposed ETP resistant to fraud or manipulation such that a surveillance-sharing agreement with a regulated market of significant size is unnecessary.[74] Specifically, the Exchange has not assessed the possible influence that spot platforms not included among the Index's constituent bitcoin platforms would have on bitcoin prices used to calculate the Index.[75] As discussed above, the record does not establish that the broader bitcoin market is inherently and uniquely resistant to fraud and manipulation. Accordingly, to the extent that trading on other spot bitcoin platforms not directly used to calculate the Index affects prices on the Index's constituent bitcoin platforms, the characteristics of those other spot bitcoin platforms—where

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72 See id.

73 See id.

74 The Commission has previously considered and rejected similar arguments about the valuation of bitcoin according to a benchmark or reference price. See, e.g., SolidX Order, 82 FR at 16258; Winklevoss Order, 83 FR at 37587-90; USBT Order, 85 FR at 12599-601.

75 As discussed above, the Commission has no basis on which to conclude that bitcoin platforms are insulated from prices of others that engage in or permit fraud or manipulation. See supra note 55 and accompanying text.

various kinds of fraud and manipulation from a variety of sources may be present and persist[76]—may affect whether the Index is resistant to manipulation.

Moreover, the Exchange's assertions that the Index's methodology helps make the Index resistant to manipulation are contradicted by the Registration Statement's own statements. Specifically, the Registration Statement states that "[s]pot markets on which bitcoin trades are relatively new and largely unregulated, and, therefore, may be more exposed to fraud and security breaches than established, regulated exchanges for other financial assets or instruments"; that "[o]ver the past several years, a number of bitcoin spot markets have been closed or faced issues due to fraud, failure, security breaches or governmental regulations"; and that "[n]o bitcoin [platform] is immune from these risks"[77] Moreover, the Registration Statement specifically acknowledges that "[p]ricing sources used by the Index are digital asset spot markets that facilitate the buying and selling of bitcoin and other digital assets" and that "[a]lthough many pricing sources refer to themselves as 'exchanges,' they are not registered with, or supervised by, the SEC or CFTC and do not meet the regulatory standards of a national securities exchange or designated contract market."[78] The Registration Statement further admits that "[t]he Index is based on various inputs which include price data from various third-party bitcoin spot markets" and [t]he Index Provider does not guarantee the validity of any of these inputs, which may be subject to technological error, manipulative activity, or fraudulent reporting from their initial source."[79] The Registration Statement concludes that "[f]or these reasons, among others,

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76 See supra note 64 and accompanying text (describing, among other things, the risks associated with spot bitcoin markets that are new and largely unregulated).

77 See Registration Statement at 8.

78 See id. at 25.

79 See id.

purchases and sales of bitcoin may be subject to temporary distortions or other disruptions due to various factors . . . [which] could affect the price of bitcoin used in Index calculations and, therefore, could adversely affect the level of the Index."[80]

The Index constituent bitcoin platforms are a subset of the spot bitcoin trading venues currently in existence. Although the Sponsor raises concerns regarding fraud and security of bitcoin platforms in the Registration Statement, the Exchange does not explain how or why such concerns are consistent with its assertion that the Index is resistant to fraud and manipulation. In addition, as described above, for purposes of calculating the Trust's NAV per Share, the Trust's holdings of bitcoin would be valued using the Index.[81] Even though the Sponsor also raises concerns in the Registration Statement regarding manipulative activity and fraudulent reporting with respect to the inputs from the Index's constituent bitcoin platforms, the Exchange does not sufficiently explain how or why such concerns are consistent with its assertion that the Index methodology, and therefore the Trust's NAV calculation, is resistant to fraud and manipulation.

Second, BZX has not shown that its proposed use of a volume-weighted median price of bitcoin over time intervals of five minutes to calculate the Index market value would effectively be able to eliminate fraudulent or manipulative activity that is not transient. Fraud and manipulation in the bitcoin spot market could persist for a "significant duration."[82] The Exchange does not connect the use of such partitions to the duration of the effects of fraudulently reported prices or other manipulative activity that may exist in the bitcoin spot market.[83]

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80 See id.

81 See Notice, 86 FR at 29329.

82 See USBT Order, 85 FR at 12601 n.66; see also id. at 12607.

83 See WisdomTree Order, 86 FR at 69327.

Third, the Exchange does not explain the significance of the Index's purported resistance to manipulation to the overall analysis of whether the proposal to list and trade the Shares is designed to prevent fraud and manipulation. Even assuming that the Exchange's argument is that, if the Index is resistant to manipulation, the Trust's NAV, and thereby the Shares as well, would be resistant to manipulation, the Exchange has not established in the record a basis for such conclusion. That assumption aside, the Commission notes that the Shares would trade at market-based prices in the secondary market, not at NAV, which then raises the question of the significance of the NAV calculation to the manipulation of the Shares.

Fourth, the Exchange's arguments are contradictory. While arguing that the Index is resistant to manipulation, the Exchange simultaneously downplays the importance of the Index in light of the Trust's in-kind creation and redemption mechanism.[84] The Exchange points out that the Trust will create and redeem Shares in-kind, not in cash, which renders the NAV calculation, and thereby the ability to manipulate NAV, "significantly less important."[85] In BZX's own words, the Trust will not accept cash to buy bitcoin in order to create shares or sell bitcoin to pay cash for redeemed shares, so the price that the Sponsor uses to value the Trust's bitcoin "is not particularly important."[86] If the Index that the Trust uses to value the Trust's bitcoin "is not particularly important," it follows that the Index's resistance to manipulation is

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84 See supra notes 69-73 and accompanying text.

85 See Notice, 86 FR at 29328 ("While the Sponsor believes that the Index which it uses to value the Trust's bitcoin is itself resistant to manipulation based on the methodology further described below, the fact that creations and redemptions are available in-kind makes the manipulability of the Index significantly less important.").

86 See id. (concluding that "because the Trust will not accept cash to buy bitcoin in order to create new shares or, barring a forced redemption of the Trust or under other extraordinary circumstances, be forced to sell bitcoin to pay cash for redeemed shares, the price that the Sponsor uses to value the Trust's bitcoin is not particularly important.").

not material to the Shares' susceptibility to fraud and manipulation. As the Exchange does not address or provide any analysis with respect to these issues, the Commission cannot conclude that the Index aids in the determination that the proposal to list and trade the Shares is designed to prevent fraudulent and manipulative acts and practices.

Finally, the Commission finds that BZX has not demonstrated that in-kind creations and redemptions provide the Shares with a unique resistance to manipulation. The Commission has previously addressed similar assertions.[87] As the Commission stated before, in-kind creations and redemptions are a common feature of ETPs, and the Commission has not previously relied on the in-kind creation and redemption mechanism as a basis for excusing exchanges that list ETPs from entering into surveillance-sharing agreements with significant, regulated markets related to the portfolio's assets.[88] Accordingly, the Commission is not persuaded here that the Trust's in-kind creations and redemptions afford it a unique resistance to manipulation.[89]

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87 See Winklevoss Order, 83 FR at 37589-90; USBT Order, 85 FR at 12607-08.

88 See, e.g., iShares COMEX Gold Trust, Securities Exchange Act Release No. 51058 (Jan. 19, 2005), 70 FR 3749, 3751-55 (Jan. 26, 2005) (SR-Amex-2004-38); iShares Silver Trust, Securities Exchange Act Release No. 53521 (Mar. 20, 2006), 71 FR 14969, 14974 (Mar. 24, 2006) (SR-Amex-2005-072).

89 Putting aside the Exchange's various assertions about the nature of bitcoin and the bitcoin market, the Index, and the Shares, the Exchange also does not address concerns the Commission has previously identified, including the susceptibility of bitcoin markets to potential trading on material, non-public information (such as plans of market participants to significantly increase or decrease their holdings in bitcoin; new sources of demand for bitcoin; the decision of a bitcoin-based investment vehicle on how to respond to a "fork" in the bitcoin blockchain, which would create two different, non-interchangeable types of bitcoin), or to the dissemination of false or misleading information. See Winklevoss Order, 83 FR at 37585. See also USBT Order, 85 FR at 12600-01.

(2) Assertions That BZX Has Entered Into a Comprehensive Surveillance-Sharing Agreement with a Regulated Market of Significant Size

As BZX has not demonstrated that other means besides surveillance-sharing agreements will be sufficient to prevent fraudulent and manipulative acts and practices, the Commission next examines whether the record supports the conclusion that BZX has entered into a comprehensive surveillance-sharing agreement with a regulated market of significant size relating to the underlying assets. In this context, the term "market of significant size" includes a market (or group of markets) as to which (i) there is a reasonable likelihood that a person attempting to manipulate the ETP would also have to trade on that market to successfully manipulate the ETP, so that a surveillance-sharing agreement would assist in detecting and deterring misconduct, and (ii) it is unlikely that trading in the ETP would be the predominant influence on prices in that market.[90]

As the Commission has stated in the past, it considers two markets that are members of the ISG to have a comprehensive surveillance-sharing agreement with one another, even if they do not have a separate bilateral surveillance-sharing agreement.[91] Accordingly, based on the common membership of BZX and the CME in the ISG,[92] BZX has the equivalent of a comprehensive surveillance-sharing agreement with the CME. However, while the Commission recognizes that the CFTC regulates the CME futures market,[93] including the CME bitcoin futures

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90 See Winklevoss Order, 83 FR at 37594. This definition is illustrative and not exclusive. There could be other types of "significant markets" and "markets of significant size," but this definition is an example that provides guidance to market participants. See id.

91 See id. at 37580 n.19.

92 See Notice, 86 FR at 29327 n.54 and accompanying text.

93 While the Commission recognizes that the CFTC regulates the CME, the CFTC is not responsible for direct, comprehensive regulation of the underlying bitcoin spot market. See Winklevoss Order, 83 FR at 37587, 37599.

market, and thus such market is "regulated," in the context of the proposed ETP, the record does not, as explained further below, establish that the CME bitcoin futures market is a "market of significant size" as that term is used in the context of the applicable standard here.[94]

(i) Whether There is a Reasonable Likelihood That a Person Attempting to Manipulate the ETP Would Also Have to Trade on the CME Bitcoin Futures Market to Successfully Manipulate the ETP

(a) Assertions by BZX

The first prong in establishing whether the CME bitcoin futures market constitutes a "market of significant size" is the determination that there is a reasonable likelihood that a person attempting to manipulate the ETP would have to trade on the CME bitcoin futures market to successfully manipulate the ETP.

BZX notes that the CME began to offer trading in bitcoin futures in 2017.[95] According to BZX, nearly every measurable metric related to CME bitcoin futures contracts, which trade and settle like other cash-settled commodity futures contracts, has "trended consistently up since launch and/or accelerated upward in the past year."[96] For example, according to BZX, there was approximately $28 billion in trading in CME bitcoin futures in December 2020 compared to $737 million, $1.4 billion, and $3.9 billion in total trading in December 2017, December 2018, and December 2019, respectively.[97] Additionally, CME bitcoin futures traded over $1.2 billion

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94 In the context of the proposed ETP, the Index's constituent bitcoin platforms are not "regulated." They are not registered as "exchanges" and lack the obligations, authority, and oversight of national securities exchanges. Thus, the Commission limits the scope of its analysis to the CME. See WisdomTree Order, 86 FR at 69330 n.119.

95 According to BZX, each contract represents five bitcoin and is based on the CME CF Bitcoin Reference Rate. See Notice, 86 FR at 29325.

96 See id.

97 See id.

per day in December 2020 and represented $1.6 billion in open interest compared to $115 million in December 2019.[98] Similarly, BZX contends that the number of large open interest holders[99] has continued to increase, even as the price of bitcoin has risen, as have the number of unique accounts trading CME bitcoin futures.[100] In addition, the Sponsor, in a separate submission to the Commission, represents that "[b]etween Q1 2019 & Q2 2021, quarterly CME bitcoin futures volume grew more than 20x."[101]

BZX argues that the significant growth in CME bitcoin futures across each of trading volumes, open interest, large open interest holders, and total market participants since the USBT Order was issued is reflective of that market's growing influence on the spot price. BZX asserts that where CME bitcoin futures lead the price in the spot market such that a potential manipulator of the bitcoin spot market (beyond just the Index's constituent bitcoin platforms) would have to participate in the CME bitcoin futures market, it follows that a potential manipulator of the Shares would similarly have to transact in the CME bitcoin futures market.[102]

BZX further states that academic research corroborates the overall trend outlined above and supports the thesis that CME bitcoin futures pricing leads the spot market. BZX asserts that

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98 See id.

99 BZX represents that a large open interest holder in CME bitcoin futures is an entity that holds at least 25 contracts, which is the equivalent of 125 bitcoin. According to BZX, at a price of approximately $30,000 per bitcoin on December 31, 2020, more than 80 firms had outstanding positions of greater than $3.8 million in CME bitcoin futures. See id. at 29325 n.47.

100 See id. at 29325.

101 See Submission by the Sponsor to the Commission in connection with a meeting between representatives of the Sponsor, BZX, and Commission staff on September 8, 2021, ("Sponsor Submission") at 4, available at: https://www.sec.gov/comments/sr-cboebzx-2021-039/srcboebzx2021039-250110.pdf.

102 See Notice, 86 FR at 29327.

academic research demonstrates that the CME bitcoin futures market was already leading the spot price in 2018 and 2019.[103] BZX concludes that a person attempting to manipulate the Shares would also have to trade on that market to manipulate the ETP.[104]

The Commission disagrees. The record does not demonstrate that there is a reasonable likelihood that a person attempting to manipulate the proposed ETP would have to trade on the CME bitcoin futures market to successfully manipulate it. Specifically, BZX's assertions about the general upward trends from 2018 to February 2021 in trading volume and open interest of, and in the number of large open interest holders and number of unique accounts trading in, CME bitcoin futures, as well as the Sponsor's assertions about the growth in quarterly CME bitcoin futures volume from 2019 to 2021, do not establish that the CME bitcoin futures market is of significant size. While BZX provides data showing absolute growth in the size of the CME bitcoin futures market, it provides no data relative to the concomitant growth in either the bitcoin spot markets or other bitcoin futures markets (including unregulated futures markets). Moreover, even if the CME has grown in relative size, as the Commission has previously articulated, the interpretation of the term "market of significant size" or "significant market" depends on the interrelationship between the market with which the listing exchange has a surveillance-sharing agreement and the proposed ETP.[105] BZX's recitation of data reflecting the size of the CME

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103 See id. at 29327 & n.48 (citing Y. Hu, Y. Hou & L. Oxley, What role do futures markets play in Bitcoin pricing? Causality, cointegration and price discovery from a time-varying perspective, 72 Int'l Rev. of Fin. Analysis 101569 (2020) (available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7481826/) ("Hu, Hou & Oxley")).

104 See id. at 29327.

105 See USBT Order, 85 FR at 12611.

bitcoin futures market, alone, either currently or in relation to previous years, is not sufficient to establish an interrelationship between the CME bitcoin futures market and the proposed ETP.[106]

Further, the econometric evidence in the record for this proposal also does not support a conclusion that an interrelationship exists between the CME bitcoin futures market and the bitcoin spot market such that it is reasonably likely that a person attempting to manipulate the proposed ETP would also have to trade on the CME bitcoin futures market to successfully manipulate the proposed ETP.[107] While BZX states that CME bitcoin futures pricing leads the spot market,[108] it relies on the findings of a price discovery analysis in one section of a single academic paper to support the overall thesis.[109] However, the findings of that paper's Granger causality analysis, which is widely used to formally test for lead-lag relationships, are concededly mixed.[110] In addition, the Commission considered an unpublished version of the

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106 See id. at 12612.

107 See id. at 12611. Listing exchanges have attempted to demonstrate such an "interrelationship" by presenting the results of various econometric "lead-lag" analyses. The Commission considers such analyses to be central to understanding whether it is reasonably likely that a would-be manipulator of the ETP would need to trade on the CME bitcoin futures market. See id. at 12612.

108 See Notice, 86 FR at 29327.

109 See supra note 103 and accompanying text. BZX references the following conclusion from the "time-varying price discovery" section of Hu, Hou & Oxley: "There exist no episodes where the Bitcoin spot markets dominates the price discovery processes with regard to Bitcoin futures. This points to a conclusion that the price formation originates solely in the Bitcoin futures market. We can, therefore, conclude that the Bitcoin futures markets dominate the dynamic price discovery process based upon time-varying information share measures. Overall, price discovery seems to occur in the Bitcoin futures markets rather than the underlying spot market based upon a time-varying perspective…" See Notice, 86 FR at 29327 n.48.

110 The paper finds that the CME bitcoin futures market dominates the spot markets in terms of Granger causality, but that the causal relationship is bi-directional, and a Granger causality episode from March 2019 to June/July 2019 runs from bitcoin spot prices to CME bitcoin futures prices. The paper concludes: "[T]he Granger causality episodes are not constant throughout the whole sample period. Via our causality detection methods,

paper in the USBT Order, as well as a comment letter submitted by the authors on that record.[111] In the USBT Order, as part of the Commission's conclusion that "mixed results" in academic studies failed to demonstrate that the CME bitcoin futures market constitutes a market of significant size, the Commission noted the paper's inconclusive evidence that CME bitcoin futures prices lead spot prices—in particular that the months at the end of the paper's sample period showed that the spot market was the leading market—and stated that the record did not include evidence to explain why this would not indicate a shift towards prices in the spot market leading the futures market that would be expected to persist into the future.[112] The Commission also stated that the paper's use of daily price data, as opposed to intraday prices, may not be able to distinguish which market incorporates new information faster.[113] BZX has not addressed either issue.

Moreover, BZX does not provide results of its own analysis and does not present any other data supporting its conclusion. BZX's unsupported representations constitute an insufficient basis for approving a proposed rule change in circumstances where, as here, the Exchange's assertion would form such an integral role in the Commission's analysis and the assertion is subject to several challenges.[114] In this context, BZX's reliance on a single paper, whose own lead-lag results are inconclusive, is especially lacking because the academic literature on the lead-lag relationship and price discovery between bitcoin spot and futures

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market participants can identify when markets are being led by futures prices and when they might not be." See Hu, Hou & Oxley, supra note 103.

111 See USBT Order, 85 FR at 12609.

112 See id. at 12613 n.244.

113 See id.

114 See Susquehanna, 866 F.3d at 447.

markets is unsettled.[115] In the USBT Order, the Commission responded to multiple academic papers that were cited and concluded that, in light of the mixed results found, the exchange there had not demonstrated that it is reasonably likely that a would-be manipulator of the proposed ETP would transact on the CME bitcoin futures market.[116] Likewise, here, given the body of academic literature to indicate to the contrary, the Commission concludes that the information that BZX provides is not a sufficient basis to support a determination that it is reasonably likely that a would-be manipulator of the proposed ETP would have to trade on the CME bitcoin futures market.[117]

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115 See, e.g., D. Baur & T. Dimpfl, Price discovery in bitcoin spot or futures?, 39 J. Futures Mkts. 803 (2019) (finding that the bitcoin spot market leads price discovery); O. Entrop, B. Frijns & M. Seruset, The determinants of price discovery on bitcoin markets, 40 J. Futures Mkts. 816 (2020) (finding that price discovery measures vary significantly over time without one market being clearly dominant over the other); J. Hung, H. Liu & J. Yang, Trading activity and price discovery in Bitcoin futures markets, 62 J. Empirical Finance 107 (2021) (finding that the bitcoin spot market dominates price discovery); B. Kapar & J. Olmo, An analysis of price discovery between Bitcoin futures and spot markets, 174 Econ. Letters 62 (2019) (finding that bitcoin futures dominate price discovery) ("Kapar & Olmo"); E. Akyildirim, S. Corbet, P. Katsiampa, N. Kellard & A. Sensoy, The development of Bitcoin futures: Exploring the interactions between cryptocurrency derivatives, 34 Fin. Res. Letters 101234 (2020) (finding that bitcoin futures dominate price discovery); A. Fassas, S. Papadamou, & A. Koulis, Price discovery in bitcoin futures, 52 Res. Int'l Bus. Fin. 101116 (2020) (finding that bitcoin futures play a more important role in price discovery) ("Fassas et al"); S. Aleti & B. Mizrach, Bitcoin spot and futures market microstructure, 41 J. Futures Mkts. 194 (2021) (finding that relatively more price discovery occurs on the CME as compared to four spot exchanges); J. Wu, K. Xu, X. Zheng & J. Chen, Fractional cointegration in bitcoin spot and futures markets, 41 J. Futures Mkts. 1478 (2021) (finding that CME bitcoin futures dominate price discovery). See also C. Alexander & D. Heck, Price discovery in Bitcoin: The impact of unregulated markets, 50 J. Financial Stability 100776 (2020) (finding that, in a multi-dimensional setting, including the main price leaders within futures, perpetuals, and spot markets, CME bitcoin futures have a very minor effect on price discovery; and that faster speed of adjustment and information absorption occurs on the unregulated spot and derivatives platforms than on CME bitcoin futures) ("Alexander & Heck").

116 See USBT Order, 85 FR at 12613 nn.239-244 and accompanying text.

117 In addition, the Exchange fails to address the relationship (if any) between prices on other bitcoin futures markets and the CME bitcoin futures market, the bitcoin spot market,

(b) Sponsor Submission

While BZX does not provide in its filing results of its own analysis nor presents any other data to support its conclusion that CME bitcoin futures pricing leads the spot market, the Sponsor in the Sponsor Submission provides information to show that the CME bitcoin futures market leads price discovery across global USD and USDT bitcoin futures and spot markets. The Sponsor states that its findings are based on tick level trade data aggregated in one-second intervals for USD and USDT bitcoin spot and futures prices from Coin Metrics spanning January 1, 2019, to March 31, 2021. According to the Sponsor, the data for futures includes both ordinary and perpetual futures. The Sponsor explains that its dataset is limited to BTC-USD and BTC-USDT trades to exclude any impact caused by exchange rate movements.

With respect to whether the CME bitcoin futures market leads the spot markets or vice versa, the Sponsor concedes that "conclusions are mixed." The Sponsor attributes the lack of agreement to the use of classic metrics derived from the Vector Error Correction Model ("VECM"), which it states likely involves "substantial imputation" when used with data sets such as CME bitcoin futures trading data. This imputation, the Sponsor argues, "can produce biased results."[118]

In contrast, the Sponsor argues that its analysis accounts for the characteristics of CME bitcoin futures trading data by applying the Hayashi-Yoshida ("HY") estimator. According to the

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and/or the particular Index constituent bitcoin platforms, or where price formation occurs when the entirety of bitcoin futures markets, not just the CME, is considered.

118 See Sponsor Submission at 8. The Sponsor states that prior lead-lag studies employ methods that assume that the prices/returns under consideration are synchronous and so adjustments need to be made for non-synchronous and/or infrequent data. According to the Sponsor, adjustments such as imputation or synchronous sampling can lead to "spurious results" for these methods. See id. at 19.

Sponsor, the use of the HY estimator is more suitable for "disparate and infrequent data," as it is free from imputation, and it has also previously proven useful in price discovery research, including bitcoin spot markets.[119] Based on its analysis, the Sponsor argues that the results demonstrate that the CME bitcoin futures market has consistently led bitcoin price discovery across global USD bitcoin markets.[120] As a result of its study, the Sponsor concludes that there is a reasonable likelihood that a person attempting to manipulate the ETP would have to trade in the CME bitcoin futures market because: (1) the CME bitcoin futures market leads in bitcoin price discovery across USD-based trading in bitcoin futures and spot markets globally; and (2) arbitrage between the CME bitcoin futures market and spot markets would tend to counter an attempt to manipulate the spot market alone.[121]

The Sponsor Submission does not provide sufficient evidence for the Commission to conclude that it is reasonably likely that a would-be manipulator of the proposed ETP would have to trade on the CME bitcoin futures market to successfully manipulate the proposed ETP. By applying its selected analytical method, the Sponsor presents conclusory results that suggest that CME bitcoin futures lead price discovery. Even if the Commission were to accept these results at face value, the Sponsor has not demonstrated that other analyses that reached different and opposite conclusions were, in fact, "spurious" results, or otherwise were results on which the Commission cannot reasonably rely. In fact, the Sponsor highlights that in the academic

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119 See id. at 8. The Sponsor further explains that, due to the "high sparsity" of CME futures data, the framework of correlation-based lead-lag analysis using the HY estimator is more suitable because this approach is free from any imputation or sampling and has proven useful in price discovery research. See id. at 19.

120 See id. at 9.

121 See id. at 7.

literature, "conclusions are mixed" on the lead-lag relationship between bitcoin spot and futures markets. Namely, there are analytical methodologies that lead to the conclusion that the spot market price leads the CME futures price, those that conclude that the CME futures price leads the spot market price, as well as those that conclude that unregulated futures markets lead the CME futures market in price discovery.[122] While the Sponsor dismisses the validity of these other results due to the theoretical possibility that imputation or synchronous sampling can lead to spurious or unreliable results, it does not provide any detail to support that any of the other results are actually inaccurate.

Moreover, the Commission cannot accept the Sponsor's results at face value based on the extent of the information it provides. While the Sponsor provides in graphs aggregate average "lead" times (in seconds) that suggest that the CME futures market has the largest "lead" in each quarter of the sample period, the Sponsor does not provide the specific results of each of its pairwise assessments (e.g., CME compared to Coinbase; CME compared to Gemini; etc.) or—crucially—the Sponsor's confidence intervals around each such pairwise result. Provision of pairwise results and confidence intervals is common in the academic literature that the Sponsor itself cites in the Sponsor Submission.[123] The Commission is thus unable to assess the Sponsor's specific results or statistical significance of those results. Confidence intervals are particularly important, given that the Sponsor's results show that the "lead" of the CME bitcoin futures market has steadily decreased over the sample period to within about one second of "lead" time,

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122 The Sponsor points to Kapar & Olmo and Fassas et al. as results that suggest that CME futures lead the spot markets, and to Alexander & Heck as results that suggest that CME futures lag. See id. at 8. See also supra note 115.

123 See, e.g., Sponsor Submission (citing B. Schei, High Frequency Lead-Lag Relationships in the Bitcoin Market, Copenhagen Business School Master's Thesis (2019) (unpublished)).

which is the tick data aggregation interval for the study, and to below one second compared to the leading non-regulated USD bitcoin futures market. The Sponsor also has not discussed whether its findings are sensitive to its choice to aggregate tick level trade data into one-second intervals, particularly as the estimated "lead" times decrease over the sample period; or whether the Sponsor's critique of other studies—that imputation or synchronous sampling can lead to "spurious" or otherwise unreliable results—applies to its findings as well because of the aggregation that the Sponsor used. Further, the Sponsor has not discussed the robustness of its two-dimensional methodology—which examines pairwise lead-lag relationships within and across the bitcoin spot and futures markets—to the critique in the multi-dimensional Alexander & Heck study that: "omitting substantial information flows from other markets can produce misleading results….[I]n a two-dimensional model one or other of the instruments must necessarily be identified as price leader."[124]

The Commission accordingly concludes that the information provided in the record for this proposal does not establish a reasonable likelihood that a would-be manipulator of the proposed ETP would have to trade on the CME bitcoin futures market to successfully manipulate the proposed ETP. Therefore, the information in the record also does not establish that the CME bitcoin futures market is a "market of significant size" with respect to the proposed ETP.

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[124] See Alexander & Heck, supra note 115, at 2.

(ii) Whether It is Unlikely that Trading in the Proposed ETP Would Be the Predominant Influence on Prices in the CME Bitcoin Futures Market

The second prong in establishing whether the CME bitcoin futures market constitutes a "market of significant size" is the determination that it is unlikely that trading in the proposed ETP would be the predominant influence on prices in the CME bitcoin futures market.[125]

BZX asserts that trading in the Shares would not be the predominant force on prices in the CME bitcoin futures market (or spot market) because of the significant volume in the CME bitcoin futures market, the size of bitcoin's market capitalization, which is approximately $1 trillion, and the significant liquidity available in the spot market.[126] BZX provides that, according to February 2021 data, the cost to buy or sell $5 million worth of bitcoin averages roughly 10 basis points with a market impact of 30 basis points.[127] For a $10 million market order, the cost to buy or sell is roughly 20 basis points with a market impact of 50 basis points. Stated another way, BZX states that a market participant could enter a market buy or sell order for $10 million of bitcoin and only move the market 0.5 percent.[128] BZX further asserts that more strategic purchases or sales (such as using limit orders and executing through OTC bitcoin trade desks) would likely have less obvious impact on the market, which is consistent with MicroStrategy, Tesla, and Square being able to collectively purchase billions of dollars in bitcoin.[129] Thus, BZX

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125 See Winklevoss Order, 83 FR at 37594; USBT Order, 85 FR at 12596-97.

126 See Notice, 86 FR at 29328.

127 See id. According to BZX, these statistics are based on samples of bitcoin liquidity in U.S. dollars (excluding stablecoins or Euro liquidity) based on executable quotes on Coinbase Pro, Gemini, Bitstamp, Kraken, LMAX Exchange, BinanceUS, and OKCoin during February 2021. See id. nn.58-59.

128 See id. at 29328.

129 See id.

concludes that the combination of CME bitcoin futures leading price discovery, the overall size of the bitcoin market, and the ability for market participants (including authorized participants creating and redeeming with the Trust) to buy or sell large amounts of bitcoin without significant market impact, will help prevent the Shares from becoming the predominant force on pricing in either the bitcoin spot or the CME bitcoin futures market.[130]

In its submission, the Sponsor similarly argues that the CME futures market-leading price discovery across USD-based bitcoin trading markets, as well as its aggregate significant trading volume and liquidity, make it unlikely that trading in a bitcoin ETP would be the predominant influence on prices in CME bitcoin futures.[131] Specifically, the Sponsor concludes that it is unlikely that trading in a bitcoin ETP would be the predominant influence on CME bitcoin futures market or bitcoin spot prices because of: (1) the CME bitcoin futures market leading in bitcoin price discovery across USD-based trading in bitcoin futures and spot markets globally; (2) significant trading volume in USD-based bitcoin futures; and (3) the highly liquid bitcoin spot market.[132]

The Commission does not agree. The record does not demonstrate that it is unlikely that trading in the proposed ETP would be the predominant influence on prices in the CME bitcoin futures market. As the Commission has already addressed and rejected one of the bases of BZX's and the Sponsor's assertions—that CME bitcoin futures leads price discovery[133]—the

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130 See id.

131 See Sponsor Submission at 7.

132 See id. The Sponsor states that bitcoin trading volume and market capitalization has continued to grow (2019 Q1 – 2021 Q2), see Sponsor Submission at 10, and that spot trading costs and market impact have decreased over the last year (January 2020 – February 2021), see id.

133 See supra notes 107-124 and accompanying text.

Commission will only address below the other bases—the overall size, volume, and liquidity of, and the impact of buys and sells on, the CME bitcoin futures market and spot bitcoin market.

BZX's and the Sponsor's assertions about the potential effect of trading in the Shares on the CME bitcoin futures market and bitcoin spot market are general and conclusory, repeating the aforementioned trade volume of the CME bitcoin futures market and the size and liquidity of the bitcoin spot market, as well as the market impact of a large transaction, without any analysis or evidence to support these assertions. For example, there is no limit on the amount of mined bitcoin that the Trust may hold. Yet BZX does not provide any information on the expected growth in the size of the Trust and the resultant increase in the amount of bitcoin held by the Trust over time, or on the overall expected number, size, and frequency of creations and redemptions – or how any of the foregoing could (if at all) influence prices in the CME bitcoin futures market. Thus, the Commission cannot conclude, based on BZX's and the Sponsor's statements alone and absent any evidence or analysis in support of BZX's and the Sponsor's assertions, that it is unlikely that trading in the ETP would be the predominant influence on prices in the CME bitcoin futures market.

The Commission also is not persuaded by BZX's assertions about the minimal effect a large market order to buy or sell bitcoin would have on the bitcoin market.[134] While BZX concludes by way of a $10 million market order example that buying or selling large amounts of bitcoin would have insignificant market impact, the conclusion does not analyze the extent of any impact on the CME bitcoin futures market. Even assuming that BZX is suggesting that a

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134 See Notice, 86 FR at 29328 ("For a $10 million market order, the cost to buy or sell is roughly 20 basis points with a market impact of 50 basis points. Stated another way, a market participant could enter a market buy or sell order for $10 million of bitcoin and only move the market 0.5%.").

single $10 million order in bitcoin would have immaterial impact on the prices in the CME bitcoin futures market, this prong of the "market of significant size" determination concerns the influence on prices from trading in the proposed ETP, which is broader than just trading by the proposed ETP. While authorized participants of the Trust might only transact in the bitcoin spot market as part of their creation or redemption of Shares, the Shares themselves would be traded in the secondary market on BZX. The record does not discuss the expected number or trading volume of the Shares, or establish the potential effect of the Shares' trade prices on CME bitcoin futures prices. For example, BZX does not provide any data or analysis about the potential effect the quotations or trade prices of the Shares might have on market-maker quotations in CME bitcoin futures contracts and whether those effects would constitute a predominant influence on the prices of those futures contracts.

Thus, because BZX and the Sponsor have not provided sufficient information to establish both prongs of the "market of significant size" determination, the Commission cannot conclude that the CME bitcoin futures market is a "market of significant size" such that BZX would be able to rely on a surveillance-sharing agreement with the CME to provide sufficient protection against fraudulent and manipulative acts and practices.

The requirements of Section 6(b)(5) of the Exchange Act apply to the rules of national securities exchanges. Accordingly, the relevant obligation for a comprehensive surveillance-sharing agreement with a regulated market of significant size, or other means to prevent fraudulent and manipulative acts and practices that are sufficient to justify dispensing with the requisite surveillance-sharing agreement, resides with the listing exchange. Because there is insufficient evidence in the record demonstrating that BZX has satisfied this obligation, the Commission cannot approve the proposed ETP for listing and trading on BZX.

C. Whether BZX Has Met Its Burden to Demonstrate That the Proposal Is Designed to Protect Investors and the Public Interest

BZX contends that, if approved, the proposed ETP would protect investors and the public interest. However, the Commission must consider these potential benefits in the broader context of whether the proposal meets each of the applicable requirements of the Exchange Act.[135] Because BZX has not demonstrated that its proposed rule change is designed to prevent fraudulent and manipulative acts and practices, the Commission must disapprove the proposal.

BZX asserts that, with the growth of U.S. investor exposure to bitcoin through OTC bitcoin funds, so too has grown the potential risk to U.S. investors.[136] Specifically, BZX argues that premium and discount volatility, high fees, insufficient disclosures, and technical hurdles are putting U.S. investor money at risk on a daily basis and that such risk could potentially be eliminated through access to a bitcoin ETP.[137] As such, the Exchange believes that approving this proposal (and comparable proposals submitted hereafter) would give U.S. investors access to bitcoin in a regulated and transparent exchange-traded vehicle that would act to limit risk to U.S. investors by: (i) reducing premium and discount volatility; (ii) reducing management fees through meaningful competition; (iii) providing an alternative to custodying spot bitcoin; and (iv) reducing certain risks associated with investing in operating companies that are proxies for bitcoin exposure.[138]

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135 See Winklevoss Order, 83 FR at 37602. See also GraniteShares Order, 83 FR at 43931; ProShares Order, 83 FR at 43941; USBT Order, 85 FR at 12615.

136 See Notice, 86 FR at 29331.

137 See id.

138 See id. at 29324.

According to BZX, OTC bitcoin funds are generally designed to provide exposure to bitcoin in a manner similar to the Shares. However, unlike the Shares, BZX states that "OTC bitcoin funds are unable to freely offer creation and redemption in a way that incentivizes market participants to keep their shares trading in line with their NAV and, as such, frequently trade at a price that is out of line with the value of their assets held."[139] BZX represents that, historically, OTC bitcoin funds have traded at significant premiums or discounts compared to their NAV.[140] BZX argues that, in contrast, a bitcoin ETP would provide an alternative to OTC bitcoin funds offering investors access to direct bitcoin exposure with real time trading and transparency on pricing/valuation, liquidity, and active arbitrage—advantages of the ETP structure.[141] One commenter expresses support for the approval of bitcoin ETPs because they believe such ETPs would have lower premium/discount volatility and lower management fees than an OTC bitcoin fund.[142]

BZX also asserts that exposure to bitcoin through an ETP also presents advantages for investors compared to buying spot bitcoin directly.[143] BZX asserts that, without the advantages of an ETP, an investor holding bitcoin through a cryptocurrency trading platform lacks protections.[144] BZX explains that, typically, OTC trading platforms hold most, if not all,

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139 See id. BZX also states that, unlike the Shares, because OTC bitcoin funds are not listed on an exchange, they are not subject to the same transparency and regulatory oversight by a listing exchange. BZX further asserts that the existence of a surveillance-sharing agreement between BZX and the CME bitcoin futures market would result in increased investor protections for the Shares compared to OTC bitcoin funds. See id. at 29324 n.39.

140 See id. at 29324.

141 See id.

142 See letter from Anonymous, dated June 17, 2021 ("Anonymous Letter").

143 See Notice, 86 FR at 29324.

144 See id.

investors' bitcoin in "hot" (Internet-connected) storage and do not make any commitments to indemnify investors or to observe any particular cybersecurity standard.[145] Meanwhile, an investor holding spot bitcoin directly in a self-hosted wallet may suffer from inexperience in private key management (e.g., insufficient password protection, lost key, etc.), which could cause them to lose some or all of their bitcoin holdings.[146] BZX represents that the Custodian would, by contrast, use "cold" (offline) storage to hold private keys, employ a certain degree of cybersecurity measures and operational best practices, be highly experienced in bitcoin custody, and be accountable for failures.[147] Thus, with respect to custody of the Trust's bitcoin assets, BZX concludes that, compared to owning spot bitcoin directly, the Trust presents advantages for investors.[148]

BZX further asserts that a number of operating companies engaged in unrelated businesses have announced investments as large as $1.5 billion in bitcoin.[149] Without access to bitcoin ETPs, BZX argues that investors seeking investment exposure to bitcoin may purchase shares in these companies in order to gain the exposure to bitcoin that they seek.[150] BZX contends that such operating companies, however, are imperfect bitcoin proxies and provide investors with partial or indirect bitcoin exposure paired with additional risks associated with whichever operating company they decide to purchase.[151]

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145 See id.

146 See id.

147 See id.

148 See id.

149 See id.

150 See id.

151 See id.

BZX also states that investors in many other countries, including Canada, are able to use more traditional exchange-listed and traded products to gain exposure to bitcoin, disadvantaging U.S. investors and leaving them with more risky means of getting bitcoin exposure.[152]

In essence, BZX asserts that the risky nature of direct investment in the underlying bitcoin and the unregulated markets on which bitcoin and OTC bitcoin funds trade compel approval of the proposed rule change. The Commission disagrees. Pursuant to Section 19(b)(2) of the Exchange Act, the Commission must approve a proposed rule change filed by a national securities exchange if it finds that the proposed rule change is consistent with the applicable requirements of the Exchange Act—including the requirement under Section 6(b)(5) that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices—and it must disapprove the filing if it does not make such a finding.[153] Thus, even if a proposed rule change purports to protect investors from a particular type of investment

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152 See id. at 29323. BZX represents that the Purpose Bitcoin ETF, a bitcoin-based ETP launched in Canada, reportedly reached $421.8 million in assets under management in two days, demonstrating the demand for a North American market listed bitcoin ETP. BZX contends that the Purpose Bitcoin ETF also offers a class of units that is U.S. dollar denominated, which could appeal to U.S. investors. BZX also argues that without an approved bitcoin ETP in the U.S. as a viable alternative, U.S. investors could seek to purchase these shares in order to get access to bitcoin exposure. BZX believes that, given the separate regulatory regime and the potential difficulties associated with any international litigation, such an arrangement would create more risk exposure for U.S. investors than they would otherwise have with a U.S. exchange-listed ETP. See id. at 29323 n.36. BZX also notes that regulators in other countries have either approved or otherwise allowed the listing and trading of bitcoin-based ETPs. See id. at 29323 n.37. See also Anonymous Letter (stating that "institutions can simply buy the Canadian ETFs, leaving US retail investors holding the bag" and that "[a]pproving an [ETP] in the US will correct this imbalance quickly and give relief to US-based investors who are stuck with an asset that is trading at a discount to NAV.").

153 See Exchange Act Section 19(b)(2)(C), 15 U.S.C. 78s(b)(2)(C).

risk—such as the susceptibility of an asset to loss or theft—the proposed rule change may still fail to meet the requirements under the Exchange Act.[154]

Here, even if it were true that, compared to trading in unregulated bitcoin spot markets, trading a bitcoin-based ETP on a national securities exchange provides some additional protection to investors, the Commission must consider this potential benefit in the broader context of whether the proposal meets each of the applicable requirements of the Exchange Act.[155] As explained above, for bitcoin-based ETPs, the Commission has consistently required that the listing exchange have a comprehensive surveillance-sharing agreement with a regulated market of significant size related to bitcoin, or demonstrate that other means to prevent fraudulent and manipulative acts and practices are sufficient to justify dispensing with the requisite surveillance-sharing agreement. The listing exchange has not met that requirement here. Therefore, the Commission is unable to find that the proposed rule change is consistent with the statutory standard.

Pursuant to Section 19(b)(2) of the Exchange Act, the Commission must disapprove a proposed rule change filed by a national securities exchange if it does not find that the proposed rule change is consistent with the applicable requirements of the Exchange Act—including the requirement under Section 6(b)(5) that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices.[156]

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154 See SolidX Order, 82 FR at 16259; WisdomTree Order, 86 FR at 69334.

155 See supra note 135.

156 See 15 U.S.C. 78s(b)(2)(C).

For the reasons discussed above, BZX has not met its burden of demonstrating that the proposal is consistent with Exchange Act Section 6(b)(5),[157] and, accordingly, the Commission must disapprove the proposal.[158]

D. Other Comments

Comment letters also address the general nature and uses of bitcoin;[159] the inherent value of bitcoin;[160] and the desire of investors to gain access to bitcoin through an ETP.[161] Ultimately, however, additional discussion of these topics is unnecessary, as they do not bear on the basis for the Commission's decision to disapprove the proposal.

E. The Exchange's Untimely Amendment to the Proposal

The deadline for rebuttal comments in response to the Order Instituting Proceedings was October 1, 2021.[162] On December 27, 2021, the Exchange filed Amendment No. 1 to the proposed rule change to amend and replace in its entirety the proposal as submitted on May 10, 2021. Because this amendment was filed months after the deadline for comments on the proposed rule change, the Commission deems Amendment No. 1 to have been untimely filed.[163]

Even if the amendment had been timely filed, the Commission would still conclude that the Exchange has not met its burden to demonstrate that its proposal is consistent with Exchange

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157 15 U.S.C. 78f(b)(5).

158 In disapproving the proposed rule change, the Commission has considered its impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

159 See letter from Sam Ahn, dated June 8, 2021 ("Ahn Letter").

160 See Ahn Letter.

161 See Anonymous Letter; Sponsor Submission at 4-5.

162 See supra note 7.

163 The untimely filing of Amendment No. 1 also does not allow the Commission sufficient time to solicit public comment.

Act Section 6(b)(5). The Exchange makes four primary changes in the amendment.[164] First, the Exchange argues that, based on a review of the Commission's past approvals and disapprovals of ETPs, the applicable standard does not require the underlying commodity market to be regulated, but rather requires that the listing exchange has in place a comprehensive surveillance-sharing agreement with a regulated market of significant size related to the underlying commodity. The Exchange states that, therefore, the CME bitcoin futures market is the proper market for the Commission to consider in determining whether the proposal is consistent with the Exchange Act.

The Commission does not disagree. As the Commission has clearly and consistently stated, an exchange that lists bitcoin-based ETPs can meet its obligation under Exchange Act Section 6(b)(5) that its rules be designed to prevent fraudulent and manipulative acts and practices by demonstrating that the exchange has a comprehensive surveillance-sharing agreement with a regulated market of significant size related to the underlying or reference bitcoin assets.[165] As discussed in detail in Section III.B.2, the Commission has considered the Exchange's arguments with respect to the CME bitcoin futures market, and the Commission concludes that the Exchange has failed to demonstrate that the CME bitcoin futures market is such a "market of significant size."

Second, the Exchange incorporates a version of the Sponsor Submission's lead-lag analysis into the amendment.[166] The Exchange states that the Sponsor attributes the "mixed results" in previous academic studies that have failed to demonstrate that the CME bitcoin

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164 In addition, in Amendment No. 1, among other things, the Exchange amends its description of the Trust, the Index, the Custodian, and the CME bitcoin futures market.

165 See supra notes 11 and 12 and accompanying text.

166 See supra Section III.B.2.i.b.

futures market constitutes a market of significant size to the problems associated with high sparsity of some of the data used, the VECM econometric approach, and imputation of price data. The Sponsor believes that its framework of correlation-based lead-lag analysis using the HY estimator is more suitable.[167] The amendment includes a new table, not in the original Sponsor Submission, that asserts that—although the "lead" in seconds of the CME bitcoin futures market has steadily decreased over the sample period—the "strength" of CME bitcoin futures price leadership has not deteriorated based on the "ratio" of the CME bitcoin futures market's "average lead among all markets over the absolute average of every market's overall lead-lag."

However, the incorporation of the Sponsor's lead-lag analysis still contains the same shortcomings as the Sponsor's original submission.[168] The amendment elaborates on the potential bias that imputation or sampling for non-synchronous and/or infrequent data can introduce into results by citing an academic study by Buccheri et al.[169] that investigates the difficulties to identifying price discovery with VECM models due to the high sparsity of data in markets that record trades at the sub-millisecond level. The Exchange asserts that there is such "high sparsity" in CME bitcoin futures data, but provides no information that verifies this assertion. Further, even assuming CME bitcoin futures data has such "high sparsity" and that VECM-derived metrics using CME bitcoin futures data "are potentially biased," neither the Exchange nor the Sponsor demonstrates that the Buccheri et al. critique of VECM methods applications to sub-millisecond frequencies actually applies to the bitcoin price data analyses and

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167 See supra note 119 and accompanying text.

168 See supra Section III.B.2.i.b.

169 G. Buccheri, G. Bormetti, F. Corsi & F. Lillo, Comment on: Price discovery in high resolution, 19 J. Financial Econometrics 439 (2021).

that the mixed conclusions in previous academic studies on whether the CME bitcoin futures market leads or lags bitcoin price discovery were inaccurate or misleading.

With respect to the Sponsor's own results using the HY estimator, the amendment still does not provide the specific results for each pairwise lead-lag analysis, or confidence intervals around such results; it merely provides aggregated results that show the average lead-lag that a market has with all other markets in a quarter.[170] Even accepting the results at face value and assuming their statistical significance, the Exchange has not explained why the "ratio" of the CME bitcoin futures market's lead over other markets is a better indicator of the "strength" of price leadership than the absolute average lead time in seconds. In particular, the Exchange has not explained how such "ratio" provides evidence that it is reasonably likely that a would-be manipulator of the proposed ETP would have to trade on the CME bitcoin futures market to manipulate the proposed ETP, notwithstanding that—accepting the Sponsor's results—the CME's absolute average lead in seconds has steadily decreased over time as, in the Exchange's words, "the window of arbitrage opportunity has closed with increasing speed." The Sponsor's analysis is thus flawed for these reasons. In any event, the Sponsor's analysis would constitute a result that is merely part of the "mixed conclusions" of studies on this topic without establishing a more definitive result from which the Commission could conclude that there is a reasonable likelihood that a would-be manipulator of the proposed ETP would have to trade on the CME bitcoin futures market to successfully manipulate the proposed ETP, and thus the Sponsor has not established that that the CME bitcoin futures market is a "market of significant size" with respect to the proposed ETP.

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170 See supra note 123 and accompanying text.

Third, the amendment sets forth new arguments to establish that it is unlikely that trading in the proposed ETP would be the predominant influence on prices in the CME bitcoin futures market. According to the Exchange, a lead-lag analysis performed by the Sponsor concludes that the CME bitcoin futures market continues to "lead" price discovery after the launch of the ProShares Bitcoin Strategy ETF ("BITO"),[171] even though the trading volume on CME increased significantly after the launch. The Exchange states that it would be unreasonable to assume that such price leadership would deteriorate with increased trade activity in the spot market. The Exchange also presents a lead-lag analysis of BITO performed by the Sponsor to show that there is no significant lead-lag relationship between BITO and other bitcoin markets, and that BITO, as a general bitcoin ETP example, only has a minor impact on price discovery in the bitcoin markets. The Exchange states that it believes there would similarly be no material relationship between the Shares and the CME bitcoin futures market. The Exchange further states that, in the gold market, which it believes is an analogous market to bitcoin in terms of price discovery, futures lead price discovery despite the spot market having 10 times more volume. Finally, the Exchange states that trading of the Shares on the secondary market could have a "positive impact" on the CME bitcoin futures market's leading position because CME bitcoin futures are used in hedging activities by market participants. The Exchange states that "[g]iven there is a lag between the secondary market transaction, the striking of NAV per Share in the primary market and the settlement of the primary market transaction," authorized participants will seek to hedge their exposure through the use of bitcoin futures.

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171 The Exchange states that the Sponsor selected BITO for its analysis as BITO is a Commission-registered ETF that seeks to invest primarily in CME bitcoin futures contracts, is listed and traded on a US regulated national securities exchange, and was launched on October 18, 2021.

The Commission does not have the opportunity to consider these new "predominant influence" contentions and the statistical analyses that underlie them given the untimeliness of Amendment No. 1. In any event, no contention has sufficient detail to demonstrate that it is unlikely that trading in the proposed ETP would be the predominant influence on prices in the CME bitcoin futures market. Among other things, the description of the lead-lag analysis regarding the launch of BITO lacks confidence intervals, and thus the Commission is unable to assess the specific results or statistical significance of those results. Moreover, even accepting the results at face value and assuming their statistical significance, the Exchange does not explain why results that show that increased trading volume in CME bitcoin futures did not reduce CME bitcoin futures' price leadership should also be considered to support the proposition that increased trading volume in spot bitcoin as a result of the proposed ETP also would not reduce CME bitcoin futures' price leadership. Moreover, the relevant question is not the impact of the proposed ETP on CME bitcoin futures' price leadership, but on CME bitcoin futures prices themselves. The Sponsor's lead-lag analysis does not address this. Further, with respect to the BITO lead-lag analysis, neither the Exchange nor the Sponsor provides any rationale for why it is reasonable to consider BITO—a CME bitcoin futures-based fund—to be relevant in the analysis regarding a spot bitcoin-based product such as the proposed ETP. Nor does the Exchange or the Sponsor explain why results that purport to indicate that BITO does not have significant price leadership over other bitcoin markets in general should also be considered evidence that the proposed ETP likely would not have significant price leadership over CME

bitcoin futures in particular.[172] Further, even assuming the Exchange's summary of the academic literature regarding price discovery in the gold market is accurate, it does not help the Exchange to meet its burden with respect to the proposed ETP.[173] For example, except to conclude summarily that gold and bitcoin markets are "analogous," the Exchange provides no explanation as to why price discovery results from the gold market would shed light on price discovery in the bitcoin market. In any event, as noted above, the Exchange has not explained the connection between price discovery results and whether trading in the proposed ETP would likely be the predominant influence on prices in the CME bitcoin futures market. Finally, even if, as the Exchange claims, authorized participants would use bitcoin futures to hedge any gap between their primary market and secondary market transactions, the Exchange has not explained why such participants would use the CME bitcoin futures market, as opposed to other bitcoin futures markets.

Fourth, citing the recent launch of exchange-traded funds that provide exposure to bitcoin through CME bitcoin futures ("Bitcoin Futures ETFs"), the Exchange claims that "there is no basis for determining that the Bitcoin Futures ETFs satisfy Section 6(b)(5) of the Exchange Act while the Trust does not." The Exchange asserts that Bitcoin Futures ETFs and the Trust are "exposed to the same underlying pricing data and the same risks of manipulation," and thus are "substantially similar products."

The Commission disagrees with the premise of these arguments. Among other things, the proposed rule change does not relate to the same underlying holdings as the Bitcoin Futures

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172 Nor does the Exchange explain why the results should be considered evidence that trading in the proposed ETP likely would not have a predominant influence on CME bitcoin futures prices, as the applicable standard requires.

173 See USBT Order, 85 FR at 12613.

ETFs. The Commission considers the proposed rule change on its own merits and under the standards applicable to it. Namely, with respect to this proposed rule change, the Commission must apply the standards as provided by Section 6(b)(5) of the Exchange Act, which it has applied in connection with its orders considering previous proposals to list bitcoin-based commodity trusts and bitcoin-based trust issued receipts.[174]

Accordingly, even if the Exchange's Amendment No. 1 had been timely filed, there is no additional information in such amendment that would enable the Commission to approve the proposed rule change as amended.

IV. CONCLUSION

For the reasons set forth above, the Commission does not find, pursuant to Section 19(b)(2) of the Exchange Act, that the proposed rule change is consistent with the requirements

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[174] See supra note 11. Moreover, the Exchange has not established that the Trust and the Bitcoin Futures ETFs have the "same pricing sources." While the five constituent bitcoin platforms that currently underlie the Index are the same platforms that currently underlie the CME CF Bitcoin Reference Rate, even assuming the Index would generally track the CME CF Bitcoin Reference Rate, as discussed above in Section III.B.1, the Index is only used to value the Trust's bitcoin for purposes of calculating NAV. The Shares, by contrast, would trade at market-based prices in the secondary market, not at NAV. See supra note 81 and subsequent text.

of the Exchange Act and the rules and regulations thereunder applicable to a national securities exchange, and in particular, with Section 6(b)(5) of the Exchange Act.

IT IS THEREFORE ORDERED, pursuant to Section 19(b)(2) of the Exchange Act, that proposed rule change SR-CboeBZX-2021-039 be, and hereby is, disapproved.

By the Commission.

Vanessa A. Countryman,

Secretary.