SECURITIES AND EXCHANGE COMMISSION
(Release No. 34-94395; File No. SR-NYSEArca-2021-57)

March 10, 2022

Self-Regulatory Organizations; NYSE Arca, Inc.; Order Disapproving a Proposed Rule Change to List and Trade Shares of the NYDIG Bitcoin ETF under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares)

## I. INTRODUCTION

On June 30, 2021, NYSE Arca, Inc. ("NYSE Arca" 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 NYDIG Bitcoin ETF ("Trust") under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares). The proposed rule change was published for comment in the Federal Register on July 19, 2021.[3]

On August 23, 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 September 29, 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. 92395 (July 13, 2021), 86 FR 38129 (July 19, 2021) ("Notice"). Comments on the proposed rule change can be found at: https://www.sec.gov/comments/sr-nysearca-2021-57/srnysearca202157.htm.

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

5 See Securities Exchange Act Release No. 92722 (Aug. 23, 2021), 86 FR 48268 (Aug. 27, 2021).

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

rule change.[7] On January 4, 2022, 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 NYSE Arca 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 NYSE Arca'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. 93191, 86 FR 55090 (Oct. 5, 2021).

8 See Securities Exchange Act Release No. 93893, 87 FR 1238 (Jan. 10, 2022).

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 38130.

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 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

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]

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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 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) ("Valkyrie 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) ("Kryptoin Order"); 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 (Commodity-Based Trust Shares), Securities Exchange Act Release No. 94006 (Jan. 20, 2022), 87 FR 3869 (Jan. 25, 2022) (SR-NYSEArca-2021-37) ("SkyBridge Order"); and 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, Securities Exchange Act Release No. 94080 (Jan. 27 2022), 87 FR 5527 (Feb. 1, 2022) (SR-CboeBZX-2021-039) ("Wise Origin Order"). 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) ("VanEck Order").

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, NYSE Arca 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, NYSE Arca 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 because the manipulation concerns previously articulated by the Commission have been significantly mitigated.[26] In addition, NYSE Arca asserts that the proposal is consistent with Section 6(b)(5) of the Exchange Act because it is designed to protect investors and the public interest.[27]

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 NYSE Arca has entered into a comprehensive surveillance-sharing agreement with a regulated market of

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22 See USBT Order, 85 FR at 12597.

23 See supra note 11.

24 See Notice, 86 FR at 38134.

25 See id. at 38134-35.

26 See id.

27 See id. at 38134, 38136.

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 the analysis, the Commission concludes that NYSE Arca 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 NYSE Arca 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, NYSE Arca repeats various assertions made in prior bitcoin-based ETP proposals that the Commission has previously addressed and rejected—and more importantly, NYSE Arca does not respond to the Commission's reasons for rejecting those assertions but merely repeats them. As a result, the 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, NYSE Arca 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,[28] the Exchange proposes to list and trade the Shares of the Trust under NYSE Arca Rule 8.201-E, which governs the listing and trading of Commodity-Based Trust Shares on the Exchange.[29]

The investment objective of the Trust is to reflect the performance of the price of bitcoin less the expenses of the Trust's operations.[30] The Trust will not seek to reflect the performance of any benchmark or index. In seeking to achieve its investment objective, the Trust will only hold bitcoin.[31] The Trust will value its assets daily in accordance with Generally Accepted Accounting Principles ("GAAP"), which generally value bitcoin by reference to orderly transactions in the principal active market for bitcoin.[32] The Trust generally does not intend to

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28 See Notice, supra note 3. See also draft Registration Statement on Form S-1, dated February 16, 2021, filed by the Trust with the Commission ("Registration Statement"). The Registration Statement is not yet effective.

29 Although the name of the Trust is the NYDIG Bitcoin ETF, the Trust is a commodity-based ETP. The Trust is not an exchange-traded fund, i.e., an "ETF," registered under the Investment Company Act of 1940, as amended ("1940 Act"), and is not subject to regulation under the 1940 Act.

30 See Notice, 86 FR at 38129. NYDIG Asset Management LLC ("Sponsor") is the sponsor of the Trust. Delaware Trust Company is the trustee of the Trust, U.S. Bancorp Fund Services, LLC ("Administrator") is the transfer agent and the administrator of the Trust, and NYDIG Trust Company LLC ("Bitcoin Custodian") is the bitcoin custodian for the Trust. The Bitcoin Custodian is chartered as a limited purpose trust company by the New York State Department of Financial Services ("NYDFS") and is authorized by NYDFS to provide digital asset custody services. Both the Sponsor and the Bitcoin Custodian are indirect wholly-owned subsidiaries of New York Digital Investment Group LLC. See id.

31 See id.

32 See id.

hold cash or cash equivalents. However, the Trust may hold cash and cash equivalents on a temporary basis to pay extraordinary expenses.[33]

The net asset value ("NAV") of the Trust will be determined in accordance with GAAP as the total value of bitcoin held by the Trust, plus any cash or other assets, less any liabilities including accrued but unpaid expenses.[34] According to the Exchange, generally, GAAP requires the fair value of an asset that is traded on a market to be measured by reference to orderly transactions on an active market. Among all active markets with orderly transactions, the market that is used to determine the fair value of an asset is the principal market. The Sponsor expects that the principal market will initially generally be the NYDFS-regulated trading venue with the highest trading volume and level of activity.[35] The NAV of the Trust will typically be determined as of 4:00 p.m. E.T. on each day that the Exchange is open for regular trading ("Business Day"). The Trust's daily activities will generally not be reflected in the NAV determined for the Business Day on which the transactions are effected (the trade date), but rather on the following Business Day. The NAV for the Trust's Shares will be disseminated daily to all market participants at the same time.[36]

The Trust will disseminate an intraday indicative value ("IIV") per Share updated every 15 seconds during the Exchange's Core Trading Session (between 9:30 a.m. and 4:00 p.m. E.T.).

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33 See id. at 38130. The Trust will enter into a cash custody agreement with U.S. Bank N.A. under which U.S. Bank N.A. will act as custodian of the Trust's cash and cash equivalents. See id.

34 See id. at 38131.

35 See id. at 38132.

36 See id. at 38131-32.

The IIV will be calculated by using the same methodology that the Trust uses to determine NAV, which is to follow GAAP.[37]

The Trust will create and redeem Shares from time to time in "in-kind" transactions in blocks of 10,000 Shares ("Creation Baskets").[38] Creation Baskets will only be made in exchange for delivery to the Trust or the distribution by the Trust of the amount of bitcoin represented by the Shares being created or redeemed, the amount of which will be based on the quantity of bitcoin attributable to each Share of the Trust (net of accrued but unpaid Sponsor fees, extraordinary expenses, or liabilities) being created or redeemed determined as of 4:00 p.m. E.T. on the day the order is properly received.[39]

## III. DISCUSSION

### A. The Applicable Standard for Review

The Commission must consider whether NYSE Arca'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."[40] Under the Commission's Rules of

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37 See id. at 38132.

38 See id. at 38129-30.

39 See id. at 38129-30, 38132.

40 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, 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

Practice, the "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."[41]

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,[42] 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.[43] 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.[44]

### B. Whether NYSE Arca 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

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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).

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

42 See id.

43 See id.

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

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.[45] Such resistance to fraud and manipulation must be novel and beyond those protections that exist in traditional commodities or securities markets.[46]

NYSE Arca asserts that "on the whole, the manipulation concerns previously articulated by the Commission have since been significantly mitigated, and do not exceed those that exist in the markets for other commodities that underly [sic] securities listed on U.S. national securities exchanges."[47] Specifically, the Exchange asserts that the "significant increase in trading volume and open interest in the bitcoin futures market, growth of liquidity in the spot market for bitcoin, and certain features of the Shares mitigate the manipulation concerns expressed by the Commission when it last reviewed exchange proposals to list a bitcoin exchange-traded product."[48]

NYSE Arca asserts that both the market for NYDFS-licensed bitcoin trading and the market for the trading of bitcoin futures and options on platforms regulated by the Commodity Futures Trading Commission ("CFTC") have developed substantially.[49] According to NYSE Arca, in the three months ending on April 30, 2021:

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45 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.

46 See id. at 12597.

47 See Notice, 86 FR at 38134.

48 See id.

49 See id. at 38131.

- with respect to the bitcoin spot market, six NYDFS-licensed entities operated trading platforms with order books for spot trading of bitcoin, with a total average daily trading volume of approximately $2.5 billion; across these platforms, the average daily deviation of prices was less than 0.08%; and the largest NYDFS-licensed trading platform by volume had an average bid-ask spread during the period of less than 0.05% for trades of $250,000; and
- with respect to the bitcoin derivatives markets, two CFTC-regulated exchanges facilitated trading of bitcoin futures, with a total average daily trading volume of approximately $2.9 billion; and one CFTC-regulated exchange facilitated trading of options on bitcoin futures, with average monthly trading volume of approximately $380 million.[50]

According to NYSE Arca, the average daily trading volume for bitcoin across the three largest NYDFS-licensed platforms was approximately $7.95 million in 2016, $215.44 million in 2017, $267.19 million in 2018, $216.97 million in 2019, $708.39 million in 2020, and $2.56 billion in 2021 through April 30, 2021.[51] In addition, the Exchange states that the average daily trading volume and average daily open interest (i.e., the average total bitcoin exposure of futures contracts held by market participants at the end of each trading day) for bitcoin futures contracts on the Chicago Mercantile Exchange ("CME") and the Intercontinental Exchange ("ICE") was approximately $41.10 million and $81.87 million, respectively, in 2016; $86.68 million and

50 See id.

51 See id. The bitcoin data is for trading volumes of bitcoin against U.S. dollars and excludes trading transactions of bitcoin against other digital assets (e.g., Tether) or other fiat currencies (e.g., euros). See id.

$126.90 million, respectively, in 2017; $172.60 million and $246.62 million, respectively, in 2018; $561.78 million and $535.13 million, respectively, in 2020, and $2.51 billion and $2.94 billion, respectively in 2021 through April 30, 2021.[52]

In addition, the Exchange asserts that "increases in investor participation in and institutional adoption of bitcoin have facilitated the maturation of the bitcoin trading ecosystem" such that manipulation concerns have been largely mitigated.[53]

NYSE Arca also asserts that "[b]ecause the Shares can only be created or redeemed in kind, and… because the Sponsor fee is accrued with respect to the quantity of bitcoin held by the Trust and paid in kind by the Trust, the Trust receives and holds only bitcoin."[54] According to the Exchange, "[t]his substantially reduces the potential for manipulation of the number of Shares created or redeemed, which therefore substantially reduces the potential for shareholders to be harmed by manipulation."[55]

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

The Exchange's assertions about the maturation and growth of the bitcoin market do not constitute other means to prevent fraud and manipulation sufficient to justify dispensing with the

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52 See id.

53 See id. at 38135. NYSE Arca also states that, "[b]eginning in 2016, more institutional investors entered the bitcoin market." As a result, according to the Exchange, "an increasing number of transactions have occurred in over-the-counter ("OTC") markets instead of exchanges. This type of trading allows for bespoke trading arrangements that may ease the burden of trade operations or reduce direct types of risks (e.g., counterparty risk)." See id. at 38131.

54 See id. at 38135.

55 See id.

requisite surveillance-sharing agreement. While the Exchange states that the maturation of the bitcoin market mitigates against the Commission's concerns about fraud and manipulation,[56] such assertion is general and conclusory, and NYSE Arca provides no analysis or evidence for how such maturation serves to detect and deter potential fraud and manipulation. As stated above, "unquestioning reliance" on an SRO's representations in a proposed rule change is not sufficient to justify Commission approval of a proposed rule change.[57]

While NYSE Arca provides data regarding the size of the bitcoin spot and derivatives markets, such information is not sufficient to support the finding that other means besides surveillance-sharing agreements exist to prevent fraud or manipulation. NYSE Arca, for example, 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 concerns previously articulated by the Commission relating to fraud and manipulation of the bitcoin market have been mitigated. Further, although the Exchange states that an increase in OTC transactions in the bitcoin spot market due to an increase in institutional investor participation in that market reduces risks,[58] apart from counterparty risk, the Exchange does not elaborate on what those risks are or how or why any such risks would be reduced or how or why such reduction of risks, including counterparty risk, would mitigate against fraud and manipulation.

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56 See supra notes 47, 48, and 53 and accompanying text. The Exchange does not directly tie the asserted maturation of the bitcoin market to an argument that such market evolution provides sufficient means to justify dispensing with the requisite surveillance sharing agreement.

57 See supra note 44. The Commission has previously considered and rejected similar arguments about the maturation of the bitcoin market. See, e.g., Valkyrie Order, 86 FR at 74159.

58 See supra note 53 and accompanying text.

Moreover, while NYSE Arca asserts that the markets for NYDFS-licensed spot bitcoin trading have developed substantially,[59] the level of regulation on the bitcoin spot platforms, including NYDFS-licensed platforms, is not commensurate to the obligations, authority, and oversight of national securities exchanges or futures exchanges. National securities exchanges are required to have rules that 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, 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."[60] Moreover, national securities exchanges must file proposed rules with the Commission regarding certain material aspects of their operations,[61] and the Commission has the authority to disapprove any such rule that is not consistent with the requirements of the Exchange Act.[62] Thus, national securities exchanges are subject to Commission oversight of, among other things, their governance, membership qualifications,

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59 See supra note 49 and accompanying text.

60 See 15 U.S.C. 78f(b)(5)

61 17 CFR 240.19b-4(a)(6)(i).

62 Section 6 of the Exchange Act, 15 U.S.C. 78f, requires national securities exchanges to register with the Commission and requires an exchange's registration to be approved by the Commission, and Section 19(b) of the Exchange Act, 15 U.S.C. 78s(b), requires national securities exchanges to file proposed rules changes with the Commission and provides the Commission with the authority to disapprove proposed rule changes that are not consistent with the Exchange Act. Designated contract markets ("DCMs") (commonly called "futures markets") registered with and regulated by the Commodity Futures Trading Commission ("CFTC") must comply with, among other things, a similarly comprehensive range of regulatory principles and must file rule changes with the CFTC. See, e.g., Designated Contract Markets (DCMs), CFTC, available at http://www.cftc.gov/IndustryOversight/TradingOrganizations/DCMs/index.htm.

trading rules, disciplinary procedures, recordkeeping, and fees.[63] NYDFS regulation therefore is not a substitute for the Commission's regulation of the national securities exchanges.[64]

In addition, while the Commission recognizes that the CFTC maintains some jurisdiction over the bitcoin spot market, under the Commodity Exchange Act, the CFTC does not have regulatory authority over bitcoin spot trading platforms.[65] Except in certain limited circumstances, bitcoin spot trading platforms are not required to register with the CFTC, and the CFTC does not set standards for, approve the rules of, examine, or otherwise regulate bitcoin

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63 See Winklevoss Order, 83 FR at 37597. The Commission notes that the NYDFS has issued "guidance" to supervised virtual currency business entities, stating that these entities must "implement measures designed to effectively detect, prevent, and respond to fraud, attempted fraud, and similar wrongdoing." See Maria T. Vullo, Superintendent of Financial Services, NYDFS, Guidance on Prevention of Market Manipulation and Other Wrongful Activity (Feb. 7, 2018), available at https://www.dfs.ny.gov/docs/legal/industry/il180207.pdf. The NYDFS recognizes that it's "guidance is not intended to limit the scope or applicability of any law or regulation" (id.), which would include the Exchange Act. Nothing in the record evidences whether the bitcoin spot markets the Exchange is referring to have complied with this NYDFS guidance.

Further, there are substantial differences between the NYDFS and the Commission's regulation. Anti-Money Laundering ("AML") and Know-Your-Customer ("KYC") policies and procedures, for example, have been referenced in other bitcoin-based ETP proposals as a purportedly alternative means by which such ETPs would be uniquely resistant to manipulation. The Commission has previously concluded that such AML and KYC policies and procedures do not serve as a substitute for, and are not otherwise dispositive in the analysis regarding the importance of, having a surveillance sharing agreement with a regulated market of significant size relating to bitcoin. For example, AML and KYC policies and procedures do not substitute for the sharing of information about market trading activity or clearing activity and do not substitute for regulation of a national securities exchange. See USBT Order, 85 FR at 12603 n.101.

64 See, e.g., USBT Order, 85 FR at 12603-05; VanEck Order, 86 FR at 64545; Kryptoin Order, 86 FR at 74173.

65 See USBT Order, 85 FR at 12604; WisdomTree Order, 86 FR at 69328; Valkyrie Order, 86 FR at 74162; SkyBridge Order, 87 FR at 3877.

spot markets.[66] As the CFTC itself stated, while the CFTC "has an important role to play," U.S. law "does not provide for direct, comprehensive Federal oversight of underlying Bitcoin or virtual currency spot markets."[67] In addition, while certain bitcoin derivatives exchanges that trade bitcoin futures and options on bitcoin futures are regulated by the CFTC, the CFTC's regulations do not extend to the bitcoin spot platforms. And, with respect to NYSE Arca's statements about the growth of the bitcoin derivatives markets,[68] although the Exchange claims that the CFTC-regulated bitcoin derivative markets have developed substantially, the Exchange has not explained why such development mitigates against the Commission's concerns about fraud and manipulation such that it would not be necessary for the Exchange to enter into a surveillance-sharing agreement with a regulated market of significant size.[69]

Moreover, NYSE Arca 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, (2) persons with a dominant position in bitcoin 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 (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

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66 See id.

67 See Winklevoss Order, 83 FR at 37599 n.288 (quoting CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets (Jan. 4, 2018), at 1, available at https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/backgrounder_virtualcurrency01.pdf).

68 See supra notes 49-50 and accompanying text.

69 As discussed herein, the information in the record does not establish that the CME bitcoin futures market is a "market of significant size" related to bitcoin. See infra Section III.B.2.

investment vehicle on how to respond to a "fork" in the bitcoin blockchain), or trading based on 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.[70]

In addition, NYSE Arca 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 concerns previously articulated by the Commission relating to fraud and manipulation of the bitcoin market have been mitigated.[71] For example, the Registration Statement acknowledges that the "venues through which bitcoin trades are relatively new and may be more exposed to operational problems or failure than trading venues for other assets"; that "[o]ver the past several years, a number of bitcoin exchanges have been closed due to fraud, failure or security breaches"; that the bitcoin blockchain could be vulnerable to a "51% attack," in which a bad actor (or actors) or botnet that controls a majority of the processing power of the bitcoin network may be able to alter the bitcoin blockchain on which the bitcoin network and bitcoin transactions rely; and that "[r]ecently, some digital asset networks have been subject to malicious activity achieved through control over 50% of the processing power on the network."[72]

Finally, the Commission finds that NYSE Arca has not demonstrated that in-kind creations and redemptions provide the Shares with a unique resistance to manipulation. The

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70 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; Valkyrie Order, 86 FR at 74160; SkyBridge Order, 87 FR at 3872.

71 See, e.g., SkyBridge Order, 87 FR at 3873.

72 See Registration Statement at 14-15, 21.

Commission has previously addressed similar assertions.[73] 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.[74] Accordingly, the Commission is not persuaded here that the Trust's in-kind creations and redemptions afford it a unique resistance to manipulation.

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

As NYSE Arca 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 NYSE Arca 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

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73 See Winklevoss Order, 83 FR at 37589-90; USBT Order, 85 FR at 12607-08; VanEck Order, 86 FR at 64546; WisdomTree Order, 86 FR at 69329; Kryptoin Order, 86 FR at 74174; SkyBridge Order, 87 FR at 3874; Wise Origin Order, 87 FR at 5533.

74 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).

detecting and deterring misconduct, and (ii) it is unlikely that trading in the ETP would be the predominant influence on prices in that market.[75]

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.[76] Accordingly, based on the common membership of NYSE Arca and the CME in the ISG,[77] NYSE Arca has the equivalent of a comprehensive surveillance-sharing agreement with CME. However, while the Commission recognizes that the CFTC regulates the CME futures market,[78] including the CME bitcoin futures 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.

(a) 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

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

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75 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.

76 See id. at 37580 n.19.

77 See Notice, 86 FR at 38135.

78 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. See also supra notes 65-67 and accompanying text.

person attempting to manipulate the ETP would have to trade on the CME bitcoin futures market to successfully manipulate the ETP.

As discussed above, NYSE Arca states that the market for trading of bitcoin futures has developed substantially[79] and argues that "[t]he significant growth in trading volumes, open interest, large open interest holders, and total market participants in the bitcoin futures market since the [USBT Order] was issued is reflective of that market's growing influence on the spot price of bitcoin."[80]

NYSE Arca further states that some academic research "suggests that the bitcoin futures market has been leading bitcoin spot market price discovery since as early as 2018."[81] NYSE Arca also states that the Sponsor has developed "more recent proprietary research, including lead-lag analyses, that demonstrates that prices in the CME bitcoin futures market do indeed lead prices in the bitcoin spot market, including non-U.S. bitcoin spot markets."[82] NYSE Arca asserts that the Sponsor's finding "supports the thesis that a market participant attempting to manipulate the Shares would have to trade on that market to manipulate the ETP."[83]

NYSE Arca also states that the Sponsor's research "shows that the bitcoin futures market is one of the primary venues that market participants use to transact large exposures to bitcoin."[84]

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79 See supra notes 49-52 and accompanying text.

80 See Notice, 86 FR at 38135.

81 See id. at 38135 & n.18 (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")).

82 See Notice, 86 FR at 38135.

83 See id.

84 Id.

According to the Exchange, this "can be attributed to multiple factors, such as institutional familiarity with futures margining and settlement processes, the simplicity of cash settlement instead of physical settlement in a novel asset, and the efficient leverage offered by exchange margining."[85]

The Exchange states that, "[i]n contrast to the efficient leverage offered through the futures market, many bitcoin spot trading venues require full pre-funding of trading, which means it would be highly capital intensive to 'spoof' or 'layer' order books on spot trading venues."[86] According to the Exchange, this "further supports [the Sponsor's] conclusion that if a market participant intended to manipulate the price of bitcoin, and thereby the Shares, the bitcoin futures market is the one that would be manipulated first.[87]

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. NYSE Arca's assertions about the general upward trends in trading volume and open interest of, and in the number of large open interest holders and number of unique accounts trading in, bitcoin futures do not establish that the CME bitcoin futures market is a market of significant size.[88] While NYSE Arca provides data showing absolute growth in the size of the CME and ICE bitcoin futures markets, 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

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85 See id.

86 See id.

87 See id.

88 See also supra note 69 and accompanying text.

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.[89] Accordingly, NYSE Arca's recitation of data reflecting the size of two bitcoin futures market, 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.[90]

Further, the econometric evidence in the record for this proposal also does not support the 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.[91] While NYSE Arca states that CME bitcoin futures pricing has been leading bitcoin spot market price discovery since 2018,[92] it relies on the findings of a price discovery analysis in one section of a single academic paper to support the overall thesis.[93]

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89 See USBT Order, 85 FR at 12611.

90 See id. at 12612. The Commission has previously considered and rejected similar arguments. See VanEck Order, 86 FR at 64547; Kryptoin Order, 86 FR 74175-76; SkyBridge Order, 87 FR 3875-76; Wise Origin Order, 87 FR at 5534-35. Moreover, it is unclear how the data provided by the Exchange supports the assertion that the CME is a market of significant size, as it appears to be aggregate data for bitcoin futures contracts trading on both the CME and the ICE. See supra note 52 and accompanying text.

91 See USBT Order, 85 FR 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. See also VanEck Order, 86 FR at 64547; WisdomTree Order, 86 FR 69330-31; Kryptoin Order, 86 FR 74176; SkyBridge Order, 87 FR at 3876; Wise Origin Order, 87 FR at 5535.

92 See Notice, 86 FR at 38135.

93 See supra note 81 and accompanying text. NYSE Arca references the following conclusion from the "time-varying price discovery" section of Hu, Hou & Oxley: "There

However, the findings of that paper's Granger causality analysis, which is widely used to formally test for lead-lag relationships, are concededly mixed.[94] In addition, the Commission considered an unpublished version of the paper in the USBT Order, as well as a comment letter submitted by the authors on that record.[95] 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.[96] The Commission also stated that the paper's use of daily

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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 38135 n.18.

94 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, market participants can identify when markets are being led by futures prices and when they might not be." See Hu, Hou & Oxley, supra note 81.

95 See USBT Order, 85 FR at 12609.

96 See id. at 12613 n.244.

price data, as opposed to intraday prices, may not be able to distinguish which market incorporates new information faster.[97] NYSE Arca has not addressed either issue here.[98]

Moreover, while NYSE Arca asserts that the Sponsor has conducted proprietary research, including lead-lag analyses, to demonstrate that the CME bitcoin futures market prices lead the bitcoin spot market, the Exchange does not provide any information relating to its proprietary research, including any assumptions, parameters, or methodologies used, or furnish any data or analysis to support such a conclusion. Accordingly, the Exchange'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.[99] In this context, NYSE Arca's reliance on a single paper, whose own lead-lag results are inconclusive, and its own proprietary research that it has not provided is especially lacking because the academic literature on the lead-lag relationship and price discovery between bitcoin spot and futures markets is unsettled.[100] In the USBT Order,

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97 See id.

98 See VanEck Order, 86 FR at 64547; WisdomTree Order, 86 FR at 69331; Kryptoin Order, 86 FR 74176; Wise Origin Order, 87 FR 5535.

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

100 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); 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

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.[101] Likewise, here, given the body of academic literature to indicate to the contrary, the Commission concludes that the information that NYSE Arca 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.[102]

The Exchange also asserts that the Sponsor's research shows that the bitcoin futures market is one of the primary venues that market participants use to transact large exposures to bitcoin.[103] However, as previously mentioned, NYSE Arca does not provide information relating to the Sponsor's research or furnish any data or analysis to support these conclusions. Nor does the Exchange explain the significance of its assertion in the overall analysis of whether there is a

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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).

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

102 In addition, the Exchange fails to address the relationship (if any) between prices on other bitcoin futures markets and the CME bitcoin futures market and/or the bitcoin spot market, or where price formation occurs when the entirety of bitcoin futures markets, not just CME, is considered. See VanEck Order, 86 FR at 64547-8; WisdomTree Order, 86 FR at 69331; Kryptoin Order, 86 FR 74176; Wise Origin Order, 87 FR 5535.

103 See id.

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, as opposed to other bitcoin futures markets.

The Exchange further asserts that the efficient leverage offered through the futures market in contrast to the spot market, where it would be highly capital intensive to "spoof" or "layer" order books on spot trading venues, supports the conclusion that that would-be manipulators of bitcoin prices would attempt to do so in the bitcoin futures market.[104] Again, the Exchange does not provide any additional data or analysis to support its conclusions or any examples that would demonstrate that such assertion is reasonable, especially as it relates to the CME. In other words, even assuming that the Commission concurred with the Exchange's premise that it is reasonably likely that a would-be manipulator would attempt to manipulate the ETP by trading on the bitcoin futures market, the Exchange does not explain why such manipulator would do so specifically on the CME bitcoin futures market. Furthermore, the NYSE Arca does not provide any information on the actual leverage provided by trading CME futures contracts versus unregulated bitcoin futures markets or why would-be manipulators would be likely to trade on the CME rather than other bitcoin futures platforms that may have lower margin requirements.[105]

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104 See Notice, 86 FR at 38135.

105 For example, CME bitcoin futures currently have a 50% margin requirement. See https://www.cmegroup.com/markets/cryptocurrencies/bitcoin/bitcoin.margins.html (last visited December 1, 2021). On the other hand, the contract specifications for bitcoin futures contracts on BitMex, Deribit, and Binance specify initial margin requirements of 1%, 1%, and 2%, respectively. See https://www.bitmex.com/app/contract/XBTUSD (last visited Dec. 1, 2021); https://legacy.deribit.com/pages/docs/futures (last visited Dec. 1, 2021); and https://www.binance.com/en/support/announcement/34801a0c405a4b058f9ae18a1a34cad3 (last visited Dec. 1, 2021). Thus, it would appear to require less capital commitment to

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.

(b) 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.[106]

NYSE Arca asserts that trading in the Shares would not be the predominant force on prices in the bitcoin futures market (or spot market) because of the significant volume in the bitcoin futures market (in excess of $2.5 billion in average daily volume as of April 30, 2021), the size of bitcoin's market capitalization (in excess of $1 trillion as of April 30, 2021), and the significant liquidity available in the spot market (in excess of $2.5 billion in average daily volume as of April 30, 2021).[107]

In addition, NYSE Arca states that, based on the Sponsor's analysis, considering a small subset of spot bitcoin trading platforms, the cost to buy or sell $5 million worth of bitcoin and

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manipulate the bitcoin price using bitcoin futures traded on BitMex or other unregulated futures platforms rather than the CME, given the lower margin requirements on such unregulated platforms. The Exchange does not address this. See SkyBridge Order, 87 FR at 3876.

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

107 See Notice, 86 FR at 38136.

$10 million worth of bitcoin averages roughly 20 basis points and 40 basis points, respectively.[108] NYSE Arca explains that this is comparable to the liquidity of existing commodity-based ETPs and that using more sophisticated execution strategies and additional liquidity sources would likely result in a lower cost to trade.[109] Thus, NYSE Arca concludes that the overall size of the bitcoin market and the ability for market participants (including authorized participants creating and redeeming in-kind with the Trust) to buy or sell large amounts of bitcoin without significant market impact supports the reasoning that the Shares are unlikely to become a predominant force on pricing in either the bitcoin spot or the bitcoin futures market.[110]

The record, however, 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. NYSE Arca'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 bitcoin futures market and the size and liquidity of the bitcoin spot market, as well as the market impact of a large transaction, without 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 NYSE Arca 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

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108 See id. According to NYSE Arca, these statistics are based on three random daily samples of bitcoin liquidity in U.S. dollars (excluding stablecoins or Euro liquidity) based on executable quotes on Coinbase Pro, Bitstamp, and itBit from January 1, 2021, to April 30, 2021. See id. at n.20.

109 See id. at 38136.

110 See id.

foregoing could (if at all) influence prices in the CME bitcoin futures market. Thus, the Commission cannot conclude, based on NYSE Arca's statements alone and absent any evidence or analysis in support of NYSE Arca's assertions, that it is unlikely that trading in the ETP would be the predominant influence on prices in the CME bitcoin futures market.[111]

The Commission also is not persuaded by NYSE Arca's assertions about the minimal effect a large market order to buy or sell bitcoin would have on the bitcoin market.[112] While NYSE Arca surmises 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, the market that the Exchange, in the proposal, argues is the significant market under consideration. Even assuming, however, that NYSE Arca is suggesting that a 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 NYSE Arca. 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, NYSE Arca does not provide any data or analysis about the potential effect the quotations or trade prices of the Shares

111 See VanEck Order, 86 FR at 64548-59; WisdomTree Order, 86 FR at 69332-33; Kryptoin Order, 86 FR at 74177; SkyBridge Order, 87 FR at 3879; Wise Origin Order, 87 FR at 5537.

112 See supra notes 108-110 and accompanying text.

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.[113]

Thus, because NYSE Arca has 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 NYSE Arca 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 NYSE Arca has satisfied this obligation, the Commission cannot approve the proposed ETP for listing and trading on NYSE Arca.

### C. Whether NYSE Arca Has Met its Burden to Demonstrate That the Proposal is Designed to Protect Investors and the Public Interest

NYSE Arca 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.[114] Because NYSE Arca has not demonstrated that its proposed rule change is designed to

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113 See VanEck Order, 86 FR at 64549; WisdomTree Order, 86 FR at 69333; Kryptoin Order, 86 FR at 74177; SkyBridge Order, 87 FR at 3879; Wise Origin Order, 87 FR at 5537.

114 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.

prevent fraudulent and manipulative acts and practices, the Commission must disapprove the proposal.

NYSE Arca asserts that the proposed rule change is designed to protect investors and the public interest because an investment in the Trust would provide investors with exposure to bitcoin in a manner that may be more efficient, more convenient, and more regulated than the purchase of bitcoin or other investment products that provide exposure to bitcoin.[115] For example, the Sponsor notes that OTC bitcoin funds, which have attracted significant investor interest, offer exposure to bitcoin in a similar manner as the Trust.[116] However, according to the Exchange, the OTC bitcoin funds do not offer a creation or redemption mechanism that would keep their shares trading in line with their NAVs and, as a result, OTC bitcoin funds have historically traded at significant premiums or discounts compared to their NAVs.[117] NYSE Arca asserts that, in contrast, if the Trust's Shares were to trade at a premium or discount compared to their NAV, creation or redemption could be facilitated by authorized participants to drive the value of the Shares towards their NAV.[118] The Exchange states that investors in OTC bitcoin funds also have historically borne significantly higher fees and expenses than those that would be borne by investors in the Trust.[119]

NYSE Arca further asserts that, with the growth of OTC bitcoin funds, so too has grown the potential risk to U.S. investors.[120] Specifically, NYSE Arca argues that significant and

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115 See Notice, 86 FR at 38134.

116 See id.

117 See id.

118 See id.

119 See id.

120 See id. at 38136.

prolonged premiums and discounts, significant premium/discount volatility, high fees, insufficient disclosures, limited liquidity to trade or borrow shares, and the lack of surveillance and oversight through a listed exchange place U.S. investor money at risk in ways that could potentially be eliminated through access to the Shares.[121] As such, the Exchange believes that the proposal would act to limit risk to U.S. investors that are increasingly seeking exposure to bitcoin, while providing benefits such as the elimination of significant and prolonged premiums and discounts, the reduction of significant premium/discount volatility, the reduction of management fees through meaningful competition, the avoidance of risks associated with investing in operating companies that are imperfect proxies for bitcoin exposure, and substantially greater surveillance and regulatory oversight.[122]

Additionally, the Exchange states that investors holding bitcoin through a cryptocurrency trading platform often face credit risk to the platform for cash balances, and often face risk of loss or theft of their bitcoin as a result of the platform using internet-connected storage (i.e., "hot" wallets) and/or having poor private key management (e.g., insufficient password protection, lost key, etc.).[123] The Exchange states that, on the other hand, through use of the Bitcoin Custodian, the Trust would hold bitcoin in 100% "cold" storage, meaning the entire storage process would be done completely offline, with a regulated and licensed entity (i.e., the Bitcoin Custodian) applying industry best practices.[124]

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121 See id. For example, NYSE Arca states that the largest U.S. OTC bitcoin fund returned 46.41% year-to-date through April 30, 2021, while spot bitcoin returned 95.61% over the same period. NYSE Arca asserts that the deviation in price performance can be attributed to the fluctuation in NAV of this fund. See id.

122 See id.

123 See id. at 38134.

124 See id. See also supra note 30.

In essence, NYSE Arca argues 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.[125] Thus, even if a proposed rule change purports to protect investors from a particular type of investment 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.[126]

Here, even if it were true that, compared to trading in unregulated bitcoin spot markets or trading in OTC bitcoin funds, trading in 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.[127] 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

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

126 See SolidX Order, 82 FR at 16259; VanEck Order, 86 FR at 54550-51; WisdomTree Order, 86 FR at 69334; Kryptoin Order, 86 FR at 74179; Valkyrie Order, 86 FR at 74163; SkyBridge Order, 87 FR at 3881; Wise Origin Order, 87 FR at 5538.

127 See supra note 114.

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.[128]

For the reasons discussed above, NYSE Arca has not met its burden of demonstrating that the proposal is consistent with Exchange Act Section 6(b)(5),[129] and, accordingly, the Commission must disapprove the proposal.[130]

### D. Other Comments

The Commission received a comment letter that addressed the general nature and intrinsic value of bitcoin.[131] 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.

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

129 15 U.S.C. 78f(b)(5).

130 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).

131 See Letter from Sam Ahn (July 21, 2021).

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-NYSEArca-2021-57 be, and hereby is, disapproved.

By the Commission.

Eduardo A. Aleman
Deputy Secretary