Required fields are shown with yellow backgrounds and asterisks.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
Form 19b-4

File No. * SR 2023 - * 58
Amendment No. (req. for Amendments *)

Filing by NYSE Arca, Inc.

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial * ✔ | Amendment * ☐ | Withdrawal ☐ | Section 19(b)(2) * ✔ | Section 19(b)(3)(A) * ☐ | Section 19(b)(3)(B) * ☐

Pilot ☐ | Extension of Time Period for Commission Action * ☐ | Date Expires *

Rule
☐ 19b-4(f)(1) ☐ 19b-4(f)(4)
☐ 19b-4(f)(2) ☐ 19b-4(f)(5)
☐ 19b-4(f)(3) ☐ 19b-4(f)(6)

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010

Section 806(e)(1) * ☐ | Section 806(e)(2) * ☐

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 3C(b)(2) * ☐

Exhibit 2 Sent As Paper Document ☐ | Exhibit 3 Sent As Paper Document ☐

Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked *).

Proposal to reflect a change in the name and investment objective of the Hashdex Bitcoin Futures ETF

Contact Information

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name * Le-Anh Last Name * Bui
Title * Senior Counsel, NYSE Group Inc.
E-mail * Le-Anh.Bui@ice.com
Telephone * (202) 661-8953 Fax (212) 656-8101

Signature

Pursuant to the requirements of the Securities Exchange of 1934, NYSE Arca, Inc.
has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.

Date 08/25/2023
By Patrick Troy (Name *)
(Title *) Associate General Counsel

NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Required fields are shown with yellow backgrounds and astericks.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFS website.

Form 19b-4 Information * Add Remove View SEC Sub of NYSE Arca Hashdex Bitc	The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.
Exhibit 1 - Notice of Proposed Rule Change * Add Remove View Ex. 1 SEC Sub of NYSE Arca Hashde	The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)
Exhibit 1A - Notice of Proposed Rule Change, Security-Based Swap Submission, or Advanced Notice by Clearing Agencies * Add Remove View	The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)
Exhibit 2- Notices, Written Comments, Transcripts, Other Communications Add Remove View	Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G. ☐ Exhibit Sent As Paper Document
Exhibit 3 - Form, Report, or Questionnaire Add Remove View	Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change. ☐ Exhibit Sent As Paper Document
Exhibit 4 - Marked Copies Add Remove View	The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.
Exhibit 5 - Proposed Rule Text Add Remove View	The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change
Partial Amendment Add Remove View	If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of the Proposed Rule Change

(a) Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act")[1] and Rule 19b-4 thereunder,[2] NYSE Arca, Inc. ("NYSE Arca" or the "Exchange") proposes to (i) reflect a change in the name of the Hashdex Bitcoin Futures ETF (the "Fund") and (ii) amend representations regarding the investment objective and strategy of the Fund, shares of which are currently listed and traded on the Exchange pursuant to NYSE Arca Rule 8.200-E, Commentary .02 (Trust Issued Receipts).

A notice of the proposed rule change for publication in the Federal Register is attached hereto as Exhibit 1.

(b) The Exchange does not believe that the proposed rule change will have any direct effect, or any significant indirect effect, on any other Exchange rule in effect at the time of this filing.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change is being submitted by Exchange staff to the Securities and Exchange Commission ("Commission") pursuant to authority delegated to it by the NYSE Arca Board of Directors.

The persons on the Exchange staff prepared to respond to questions and comments on the proposed rule change are:

Le-Anh Bui
Senior Counsel
NYSE Group, Inc.
(202) 661-8953

3. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

(a) Purpose

The Commission previously approved the listing and trading of shares of the Fund (the "Shares") on the Exchange pursuant to NYSE Arca Rule 8.200-E, Commentary. 02.[3]

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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. 34-94620 (April 6, 2022), 87 FR 21676 (April 12, 2022) (SR-NYSEArca-2021-53) (Order Approving a Proposed Rule Change, as Modified by Amendment No. 2, To

NYSE Arca Rule 8.200-E, Commentary. 02 governs the listing and trading of Trust Issued Receipts. The purpose of this rule filing is to (i) reflect a change to the name of the Fund and (ii) amend representations relating to the Fund's investment objective and strategy.

Name Change

The Approval Order stated that the Fund's name would be the Teucrium Bitcoin Futures Fund, and the Fund's name subsequently changed to be the Hashdex Bitcoin Futures ETF pursuant to an April 18, 2022 amendment to the Fund's registration statement.[4] The Exchange now proposes to update the name of the Fund to the Hashdex Bitcoin ETF to reflect the Fund's updated investment strategy, further discussed below. This new name for the Fund is reflected in the Form S-1 filed by the Tidal Commodities Trust I (the "Trust") on July 21, 2023.[5]

Updated Investment Objective

The Approval Order stated that, according to the Exchange, the Chicago Mercantile Exchange, Inc. ("CME") offers two Bitcoin futures contracts, one contract representing five (5) Bitcoins ("BTC Contract") and another contract representing one-tenth of one (0.10) Bitcoin ("MBT Contract").[6] Each BTC Contract and MBT Contract settles daily to the BTC Contract volume-weighted average price ("VWAP") of all trades that occur between 2:59 p.m. and 3:00 p.m., Central Time, the settlement period, rounded to the nearest tradable tick. BTC Contracts and MBT Contracts each expire on the last Friday of the contract month, and the final settlement value for each contract is based on the CME CF Bitcoin Reference Rate ("CME CF BRR").[7]

List and Trade Shares of the Teucrium Bitcoin Futures Fund Under NYSE Arca Rule 8.200-E, Commentary .02 (Trust Issued Receipts)) (the "Approval Order").

4 On April 18, 2022, Teucrium Commodity Trust filed with the Commission Pre-Effective Amendment No. 2 to the registration statement on Form S-1 under the Securities Act of 1933 (the "Securities Act") (File No. 333-256339) changing the name of the Fund from Teucrium Bitcoin Futures Fund to Hashdex Bitcoin Futures ETF.

5 On July 21, 2023, Tidal Commodities Trust I (the "Trust") filed with the Commission a registration statement on Form S-1 under the Securities Act (15 U.S.C. 77a) (File No. 333-_______) (the "July 21, 2023 Form S-1") reflecting the Trust's assumption of management and control of Fund from Teucrium Commodity Trust. The Shares of the Fund were originally issued by the Teucrium Commodity Trust pursuant to a registration statement on Form S-1 filed with the Commission on May 20, 2021 (File No. 333-256339). The Exchange will submit a separate proposed rule change relating to the transfer of management and control of the Fund from Teucrium Commodity Trust to the Trust.

6 BTC Contracts began trading on the CME Globex ("Globex") trading platform on December 15, 2017, and are cash-settled in U.S. dollars. MBT Contracts began trading on the Globex trading platform on May 3, 2021, under the ticker symbol "MBT" and are also cash-settled in U.S. dollars.

7 The CME CF BRR aggregates the trade flow of major Bitcoin spot platforms during a specific calculation window into a once-a-day reference rate of the U.S. dollar price of Bitcoin.

The Approval Order stated that the Fund's investment objective is to have the daily changes in the net asset value ("NAV") of the Shares reflect the daily changes in the price of a specified benchmark ("Benchmark"). The Approval Order also stated that the Benchmark is calculated using the closing settlement prices of BTC Contracts listed on the CME and that the Fund's Sponsor[8] would employ a "neutral" investment strategy that is intended to track the changes in the Benchmark. To achieve its objective, the Fund currently only invests in BTC Contracts and MBT Contracts ("Bitcoin Futures Contracts") and in cash and cash equivalents. The Fund rolls its futures positions on a regular basis and does not carry futures positions all the way to cash settlement.

The Exchange now proposes to amend the representation in the Approval Order to modify the Benchmark to be calculated using the Nasdaq Bitcoin Reference Price - Settlement (the "NQBTCS"),[9] which ultimately tracks the price of Bitcoin, instead of the closing prices of BTC Contracts listed on the CME.[10] According to the Sponsor, the NQBTCS is designed to allow institutional investors to track the price of Bitcoin by applying a rigorous methodology to trade data captured from cryptocurrency exchanges that meet eligibility criteria of the Nasdaq Crypto Index ("NCI"). The NQBTCS is calculated once every trading day through the application of a publicly available rules-based pricing methodology to a diverse collection of pricing sources to provide an institutional-grade reference price for Bitcoin.[11] The pricing methodology is designed to account for variances in price across a wide range of sources, each of which has been vetted according to criteria identified in the methodology. Specifically, the settlement value is the Time Weighted Average Price ("TWAP") calculated across VWAPs for each minute in the settlement price window, which is between 2:50:00 and 3:00:00 P.M. New York time. Where there are no transactions observed in any given minute of the settlement price window, that minute is excluded from the calculation of the TWAP.

According to the Sponsor, the NQBTCS methodology also utilizes penalty factors to mitigate the impact of anomalous trading activity such as manipulation, illiquidity, large block trading, or operational issues that could compromise price representation.

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8 The July 21, 2023 Form S-1 also reflects that Toroso Investments LLC has assumed role of the Sponsor of the Trust from a change from Teucrium Trading, LLC. References to "Sponsor" hereinafter refer to Toroso Investments LLC as Sponsor of the Trust.

9 See https://indexes.nasdaqomx.com/Index/Overview/NQBTCS.

10 On August 25, 2023, the Trust confidentially filed a draft registration statement under the Securities Act (the "Registration Statement"). The Jumpstart Our Business Startups Act (the "JOBS Act"), enacted on April 5, 2012, added Section 6(e) to the Securities Act. Section 6(e) of the Securities Act provides that an "emerging growth company" may confidentially submit to the Commission a draft registration statement for confidential, non-public review by the Commission staff prior to public filing, provided that the initial confidential submission and all amendments thereto shall be publicly filed not later than 21 days before the date on which the issuer conducts a road show, as such term is defined in Securities Act Rule 433(h)(4). An emerging growth company is defined in Section 2(a)(19) of the Securities Act as an issuer with less than $1,000,000,000 total annual gross revenues during its most recently completed fiscal year. The Trust meets the definition of an emerging growth company and consequently submitted its Registration Statement to the Commission on a confidential basis.

11 See https://indexes.nasdaqomx.com/docs/methodology_NCI.pdf.

Three types of penalties are applied: abnormal price penalties, abnormal volatility penalties, and abnormal volume penalties. These penalties are defined as adjustment factors on the weight of information from each exchange that contributes pricing information based on the deviation of an exchange's price, volatility, or volume from the median across all exchanges. For example, if a core exchange's price is 2.5 standard deviations away from the median price, its price penalty factor will be a 1/2.5 multiplier.

Finally, as a means of achieving the highest degrees of confidence in the reported volume, data is sourced only from "core exchanges" that are screened, selected, and approved by the Nasdaq Crypto Index Oversight Committee (the "NCIOC"). Core exchanges must: (1) have strong forking controls; (2) have effective anti-money laundering (AML) controls; (3) have reliable and transparent application programming interface (API) that provides real-time and historical trading data; (4) charge fees for trading and structure trading incentives that do not interfere with the forces of supply and demand; (5) be licensed by a public independent governing body; (6) include surveillance for manipulative trading practices and erroneous transactions; (7) evidence a robust IT infrastructure; (8) demonstrate active capacity management; (9) evidence cooperation with regulators and law enforcement; and (10) have a minimum market representation for trading volume. Additionally, the NCIOC conducts further diligence to assess an exchange's eligibility and will consider additional criteria such as the exchange's organizational and ownership structure, security history, and reputation; the list of existing core exchanges will be recertified by the NCIOC at minimum on an annual basis.

The Sponsor believes that the NQBTCS is a suitable replacement for the closing settlement prices of BTC Contracts listed on the CME in calculating the Benchmark because (i) it would provide reliable pricing for purposes of tracking the actual performance of spot Bitcoin, (ii) it is administered by an independent index administrator, and (iii) its methodology is specifically designed to mitigate potential manipulation coming from unregulated markets. Specifically, the Sponsor believes that (i) by tracking the actual price of spot Bitcoin, which would better represent the Fund's strategy, NQBTCS is a Benchmark that will be more transparent and adequate for the Fund's investors; (ii) using a Benchmark that has its own independent index administrator provides investors the best practices in governance and accountability and benchmark quality; and (iii) the pricing methodology underlying the NQBTCS is designed to be resistant to potential price manipulation by applying a robust methodology to trade data captured from NCI core exchanges, which have to meet strict criteria created by the NCIOC, thereby drawing on a diverse collection of trustworthy pricing sources to provide an institutional-grade reference price for Bitcoin that accounts for variances in price across a wide range of sources and that adjusts to mitigate the impact of anomalous trading activity that could compromise the integrity of the NQBTCS price.

The Exchange next proposes to amend a representation regarding the investment objective of the Fund to provide that, as set forth in the Registration Statement, the Fund will seek to achieve its investment objective by investing not only in Bitcoin Futures Contracts, but also in physical Bitcoin to the extent allowed by the Fund's investment restrictions on spot Bitcoin, using a pricing methodology, for purposes of calculating the

Fund's NAV, that will derive spot Bitcoin prices from Bitcoin Futures Contracts and not from unregulated exchanges, as further explained below ("Spot Bitcoin"). In doing so, the Sponsor expects to provide a better tracking of Bitcoin exposure to investors, while still using Bitcoin Futures Contracts in its strategy and relying on the CME as its "market of relevant size." In particular, to avoid any exposure to potential manipulation from unregulated exchanges, the Fund's NAV will be calculated using a spot Bitcoin price derived from CME futures prices, as further explained below, and the Fund expects to purchase and sell physical Bitcoin via CME's Exchange for Physical Transactions, which are subject to CME's market surveillance. The Sponsor believes that the Fund's holding a combination of Bitcoin Futures Contracts, Spot Bitcoin, and cash could significantly mitigate the risk of market manipulation while still providing the market with a regulated product that tracks the actual price of Bitcoin, creating a secure way for U.S. investors to gain exposure to spot Bitcoin without having to rely on unregulated products, offshore regulated products, or indirect strategies such as investing in publicly traded companies that hold Bitcoin.

Except for the changes noted above, all other representations made in the Exchange's previous rule filing to list and trade Shares of the Fund remain unchanged and will continue to constitute continuing listing requirements for the Fund. As set forth in the Approval Order, the Fund will continue to comply with the requirements of Rule 8.200-E, Commentary. 02.

Holdings in Bitcoin Futures, Bitcoin Spot and Cash

In determining whether to approve listing and trading of new Exchange-Traded Products ("ETPs"), the Commission conducts a thorough analysis to ensure the proposal is consistent with Section 6(b)(5) of the Act. Section 6(b)(5) of the Act mandates 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. With respect to ETPs, the Commission often considers how the listing exchange would access necessary information to detect and deter market manipulation, illegal trading, and other abuses, which listing exchanges may accomplish by entering into a comprehensive surveillance-sharing agreement with other entities, such as the markets trading the ETP's underlying assets. Historically, for commodity-trust ETPs, there has always been at least one regulated market of significant size for trading futures on the underlying commodity — whether gold, silver, platinum, palladium, or copper. Then, the listing exchange would enter into surveillance-sharing agreements with, or hold Intermarket Surveillance Group ("ISG") membership in common with, that regulated market.[12]

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12 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 at 37592-94 (Aug. 1, 2018) (SR-BatsBZX-2016-30) (the "Winklevoss Order"); "); Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the Bitwise Bitcoin ETF Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 87267 (Oct. 9, 2019), 84 FR 55382 at 55383, 55410 (Oct. 16, 2019) (SR-NYSEArca-2019-01) (the "Bitwise Order"); Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, to Amend NYSE Arca Rule

In the context of Bitcoin, the CME Bitcoin Futures Market (the "CME Market") is currently the only regulated market in the U.S. However, there is still a lack of consensus on whether it is of "significant size" in relation to the spot Bitcoin market based on the test historically applied by the Commission.

The Commission has previously interpreted the terms "significant market" and "market of significant size" to include a market (or group of markets) where:

(1) 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, such that a surveillance-sharing agreement would assist the ETP listing market in detecting and deterring misconduct; and

(2) It is unlikely that trading in the ETP would be the predominant influence on prices in that market.[13]

With respect to the first prong of the Commission's interpretation, the Commission has previously explained that the lead/lag relationship between the Bitcoin futures market and the spot market is central to understanding this first prong. With respect to the second prong, the Commission's prior analysis has focused on the potential size and liquidity of the ETP compared to the size and liquidity of the market.

Interrelationship between the CME and the Fund

The Commission has previously stated that "the interpretation of the term market of significant size depends on the interrelationship between the market with which the listing exchange has a surveillance-sharing agreement and the proposed ETP."[14] The Sponsor intends to adopt an innovative approach to mitigate the risks of fraud and manipulation that are unique to the Fund. The core principle of this approach would be to structure the operation of the Fund such that the regulated market of significant size in relation to the Fund is the CME Market because it is the same market on which the Fund trades its non-cash assets. Therefore, the Sponsor's strategy aims to establish a comprehensive interrelationship between the CME Market and the Fund to unequivocally classify the CME Market as the market of significant size in relation to the ETP. The

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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 (February 26, 2020), 85 FR 12595 at 12609 (March 3, 2020) (SR-NYSEArca-2019-39) (the "Wilshire Phoenix Order").

13 See, e.g., Winklevoss Order, 83 FR at 37594. The Commission further noted that "[t]here 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." Id.

14 See Securities Exchange Act Release No. 95180 (June 29, 2022), 87 FR 40299 at 40312 (July 6, 2022) (SR-NYSEArca-2021-90) (Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, to List and Trade Shares of Grayscale Bitcoin Trust Under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares)).

Sponsor notes that, although the Fund may, as proposed, hold physical Bitcoin, it does not rely on any information or services from unregulated Bitcoin spot exchanges (such as Coinbase or Binance). Therefore, no spot Bitcoin exchange could be considered a "market of relevant size" in relation to the Fund.

The Sponsor has designed the Fund to have five novel features that underscore its significant interrelationship with the CME:

1. **Investment strategy:** The Fund will hold a mix of Spot Bitcoin, Bitcoin Futures Contracts, and cash and cash equivalents, subject to certain investment restrictions (as further discussed in the section below entitled "Investment Restrictions on Spot Bitcoin").

2. **Futures-based pricing for Spot Bitcoin:** The price determination for Spot Bitcoin holdings in the NAV calculation will be derived from the CME Market's Bitcoin futures curve. As a result, the price of Spot Bitcoin holdings will depend solely on Bitcoin futures settlement prices on the CME Market and will not depend directly on price information from unregulated spot Bitcoin markets (as further discussed in the section below entitled "Futures-Based Spot Price ("FBSP")).

3. **Investment restrictions on Spot Bitcoin:** The Fund will be subject to dynamic investment restrictions that are designed to mitigate the risk that Shares of the Fund could be manipulated by manipulating the Bitcoin spot market and ensuring that the CME Market is the only "market of significant size" with respect to the Fund.

4. **Physical Bitcoin purchases on the CME Market:** The Fund will use the CME Market's Exchange for Physical ("EFP")[15] transactions to acquire and dispose of Spot Bitcoin, instead of transactions on unregulated spot exchanges. Accordingly, the only non-cash assets held by the Fund (Bitcoin Futures Contracts and Bitcoin via EFP) would be traded on the CME Market, such that the exchanges' ability to share information pursuant to their common ISG membership could assist in detecting and deterring fraudulent or manipulative misconduct related to those assets.

5. **Creations and redemptions:** The Fund will use cash creations and redemptions[16] to deter intraday Share price manipulation that could originate from in kind creation or redemption from physical spot Bitcoin sourced in unregulated spot markets. Investment in Spot Bitcoin thus would not be directly related to creation/redemptions, but instead on target portfolio exposure, as allowed by the investment restrictions on spot Bitcoin. Trading for Spot Bitcoin could thus be

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15 See https://www.cmegroup.com/trading/equity-index/exchange-for-physical-efp-transactions.html.

16 In a cash creation/redemption format, the Authorized Participant delivers cash to the fund instead of Spot Bitcoin.

accomplished in smaller sizes and at unpredictable times, reducing the risk of manipulation in the creation or redemption processes.

The Sponsor believes that these features of the Fund are designed to provide a robust framework for mitigating the risks of market manipulation, thereby protecting investors and maintaining the integrity of the market, and further believes that, given these features of the Fund, the CME Market would be considered the regulated market of significant size in relation to the Fund.

Additionally, as further discussed below, the Sponsor believes that the Fund investment strategy is designed such that it would be highly unlikely that a person attempting to manipulate the Fund could be successful by trading on unregulated spot and derivatives markets. Thus, no market other than CME could be considered as of significant size in relation to the Fund.

The Sponsor further believes that the novel approach proposed is in line with the first prong of the Commission's interpretation of the definition of "regulated market of significant size" as to the CME Market and that there is a reasonable likelihood that a person attempting to manipulate the Fund would also have to trade on the CME Market to successfully manipulate the ETP (and, accordingly, the exchange's common ISG membership would aid the Exchange in detecting and deterring potential misconduct).

According to the Sponsor, the Sponsor's approach is designed in such a way that any attempt to manipulate the Fund would require trading on the CME Market, for the following reasons:

1. **Futures-based pricing for Spot Bitcoin:** Because the price determination for Spot Bitcoin holdings in the Fund would be derived from the CME Market futures curve, any attempt to manipulate the price of the Fund would require influencing the futures curve on the CME Market because the spot price (which could be a target for manipulation) does not directly influence the price of the Fund. There is thus a direct and unequivocal lead-lag relationship in which CME Market prices lead both the spot price used by the Fund to determine its NAV and the Fund's market price.

2. **Investment restrictions on Spot Bitcoin:** The dynamic investment restrictions in place for the Fund (as discussed in the section below entitled "Investment Restrictions on Spot Bitcoin") ensure that any significant trading activity aimed at manipulating the Fund would likely spill over into the CME Market because the investment restrictions are designed to prevent the Fund from becoming so large in relation to the unregulated spot market that the cost-benefit tradeoff is favorable for the potential manipulator to execute without influencing the futures market.

3. **Spot Bitcoin operations via EFP on the CME Market:** Because the Fund's Spot Bitcoin operations would take place via CME Market EFP transactions, any attempt to manipulate the Fund's transactions in Spot Bitcoin holdings would

need to occur on the CME Market. Accordingly, any potential manipulation of the Fund is closely tied to the CME Market.

4. **Creations and redemptions:** The Fund's use of cash creations and redemptions also reduces the potential for manipulation through the creation and redemption processes. Any significant creation or redemption activity aimed at manipulating the Fund would likely influence the futures market, given that the investment in spot is based on target portfolio exposure and not directly related to creations or redemptions.

Given these factors, the Sponsor believes that the Exchange and CME Market's common membership in the ISG would be an effective tool in assisting the Exchange in detecting and deterring potential misconduct. The agreement would provide the Exchange with access to necessary trading data from the CME Market, which is intrinsically linked to the Fund, allowing for comprehensive oversight and the ability to quickly identify and investigate any suspicious trading activity.

The Approval Order stated that the CME "comprehensively surveils futures market conditions and price movements on a real-time and ongoing basis in order to detect and prevent price distortions, including price distortions caused by manipulative efforts" and that the "CME's surveillance can reasonably be relied upon to capture the effects on the CME bitcoin futures market caused by a person attempting to manipulate the [Fund] by manipulating the price of CME Bitcoin Futures Contracts, whether that attempt is made by directly trading on the CME bitcoin futures market or indirectly by trading outside of the CME bitcoin futures market."[17] The Commission further noted in the Approval Order that, as a result, "when the CME shares its surveillance information with Arca, the information would assist in detecting and deterring fraudulent or manipulative misconduct related to the non-cash assets held by the [Fund]."[18] The Sponsor further believes that, consistent with the Approval Order, CME surveillance can be relied upon to capture any possible manipulation of the CME Bitcoin futures markets, even when the attempt is made indirectly by trading outside the CME in unregulated markets.

The Sponsor also believes that it is unlikely that trading in the Fund would be the predominant influence on prices on the CME Market. The addition of Spot Bitcoin to the Fund's holdings, using EFP transactions on the CME Market, does not significantly alter the influence of the Fund's trading on the CME Market, for the following reasons:

1. **The Fund's limited influence over the market:** As the Commission noted in the Approval Order,[19] the Commission observed no disruption to the CME or evidence that the Fund exerted a dominant influence on CME Bitcoin futures prices. That being the case, the Sponsor believes that it is very unlikely that the

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17 See Approval Order, 87 FR at 21679.

18 Id.

19 See id. at 21681.

Fund's trading, even with the addition of Spot Bitcoin to its holdings, would become the predominant influence on the futures market.

2. **Spot Bitcoin would be purchased using market-neutral EFP transactions:** The Spot Bitcoin in the Fund's portfolio would be converted from futures positions using EFP transactions on the CME Market. The Fund's Spot Bitcoin holdings would thus be directly linked to the futures market and would not introduce a new, independent variable that could significantly influence the futures market. Indeed, because both sides of the trade track the same benchmark, an EFP is market-neutral and, as such, the pricing of an EFP is quoted in terms of the basis between the price of the futures contract and the level of the underlying index.

3. **Investment restrictions on Spot Bitcoin and futures-based pricing:** The dynamic investment restrictions and futures-based pricing for Spot Bitcoin would ensure that the Fund's Spot Bitcoin holdings remain at a level where they are unlikely to significantly impact the futures market and that the futures market continues to influence the price of the Fund's Spot Bitcoin holdings (and not the other way around).

The Sponsor therefore believes that the proposed addition of Spot Bitcoin to the Fund's holdings would not significantly alter the influence of the Fund's trading on the CME Market and that the proposed design of the Fund's investment strategy ensures that its potential impact on the CME Market is the same or smaller than the previous investment strategy (as represented in the Approval Order).

The Sponsor notes that, as of April 2021 and as noted in the Fund's original proposal to list and trade its Shares on the Exchange, the CME Market was already showing a significant increase in size, as per the table below:[20]

CHICAGO MERCANTILE EXCHANGE BITCOIN FUTURES		
	February 26, 2020	April 7, 2021
Trading Volume	$433 million	$4,321 million
Open Interest	$238 million	$2,582 million

The Sponsor notes that growth of the CME Market at that time coincided with similar growth in the Bitcoin spot market. Moreover, the market for Bitcoin futures was and still is rapidly approaching the size of markets for other commodity interests, including interests in metals, agricultural, and petroleum products.

20 See Securities Exchange Act Release No. 92573 (August 5, 2021), 86 FR 44062 at 44073 (August 11, 2021) (SR-NYSEArca-2021-53) (Notice of Filing of a Proposed Rule Change To List and Trade Shares of Teucrium Bitcoin Futures Fund Under NYSE Arca Rule 8.200-E).

Accordingly, as the CME Market continues to develop and more closely resemble other commodity futures markets, the Sponsor believes that it is reasonable to expect that the relationship between the Bitcoin futures market and Bitcoin spot market will behave similarly to other future/spot market relationships, where the spot market may have no relationship to the futures market (although the current proposal does not depend on such similarity).

In addition, in the time since the Approval Order was issued, there has been significant growth in Bitcoin futures in terms of trading volumes, as reflected in the table below:

CHICAGO MERCANTILE EXCHANGE BITCOIN FUTURES		
	April 6, 2022	June 1, 2023
Trading Volume	$1,692 million	$3,473 million
Open Interest	$2,529 million	$2,800 million

The Sponsor also notes that in the same period during which CME Market open interest remained at roughly at the same level, trading volume and open interest of unregulated Bitcoin futures markets had a significant drawdown:[21]

UNREGULATED FUTURES MARKET			
	April 7, 2021	April 6, 2022	June 1, 2023
Trading Volume	$68,333 million	$37,333 million	$29,693 million
Open Interest	$20,420 million	$13,980 million	$11,630 million

Furthermore, the Sponsor notes that in the same period the trading volume of spot Bitcoin also fell significantly:

SPOT BITCOIN			
	April 7, 2021	April 6, 2022	June 1, 2023

21 Data in this table is sourced from: https://www.theblock.co/data/crypto-markets/futures. Trading volume data for Bitcoin futures in unregulated markets was only available on a monthly frequency. Therefore, the trading volume figures displayed in the table are approximations derived from the daily average trading volumes reported for their respective months.

Trading Volume	$698,000 million	$297,000 million	$116,000 million

The Sponsor believes that the data above suggests an increase in market appetite for regulated products (e.g., CME Market Bitcoin futures) vis-a-vis a significant decrease in interest for unregulated products (e.g., unregulated futures and spot Bitcoin).

The Sponsor further believes that an analysis of the data presented above indicates that the CME Market managed to maintain its open interest level despite the price volatility that Bitcoin experienced in 2022, demonstrating its resilience and that it is sufficiently developed such that it is unlikely that trading in the Fund would be the predominant influence on its prices.

The Sponsor further notes that the Commission stated in the Approval Order "that the CME bitcoin futures market has sufficiently developed to support ETPs seeking exposure to bitcoin by holding CME Bitcoin Futures Contracts."[22] The Sponsor believes that the CME Market is also sufficiently developed to support ETPs that seek exposure to Bitcoin by holding a mix of CME Market Bitcoin Futures Contracts and physical Bitcoin through the use of CME Market EFP transactions, because the CME Market is the only market on which the Fund's only proposed non-cash assets would trade. Thus, the CME Market remains the "significant market" in relation to the Fund, as proposed.

Moreover, as detailed above, the Sponsor's proposed investment strategy ensures that no unregulated spot exchange could be considered a "market of relevant size" in relation to the Fund, given that the Fund does not rely on any information or services coming from unregulated markets. All of the Fund's operations, including the purchase and sale of spot Bitcoin and its NAV determination, are conducted through the CME Market. Thus, all transactions are registered and monitored on a regulated exchange, providing an additional layer of security and transparency. Because any attempt to manipulate the Fund would require significant trading on the CME Market, and not on any unregulated spot Bitcoin exchange, there is significantly reduced potential for manipulation and fraud, further protecting investors and maintaining the integrity of the market.

<u>Futures-Based Spot Price ("FBSP")</u>

The value of Spot Bitcoin held by the Fund would be determined by the Sponsor and by Hashdex Asset Management Ltd. (the "Digital Asset Adviser") in good faith based on a methodology that is entirely derived from the settlement prices of Bitcoin Futures Contracts on the CME Market and that considers all available facts and all available information on the valuation date.

The method involves a calculation that is sensitive to both the length of time (the "tenor") until each Bitcoin Futures Contract is due for settlement and the final settlement

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22 See Approval Order at 21681.

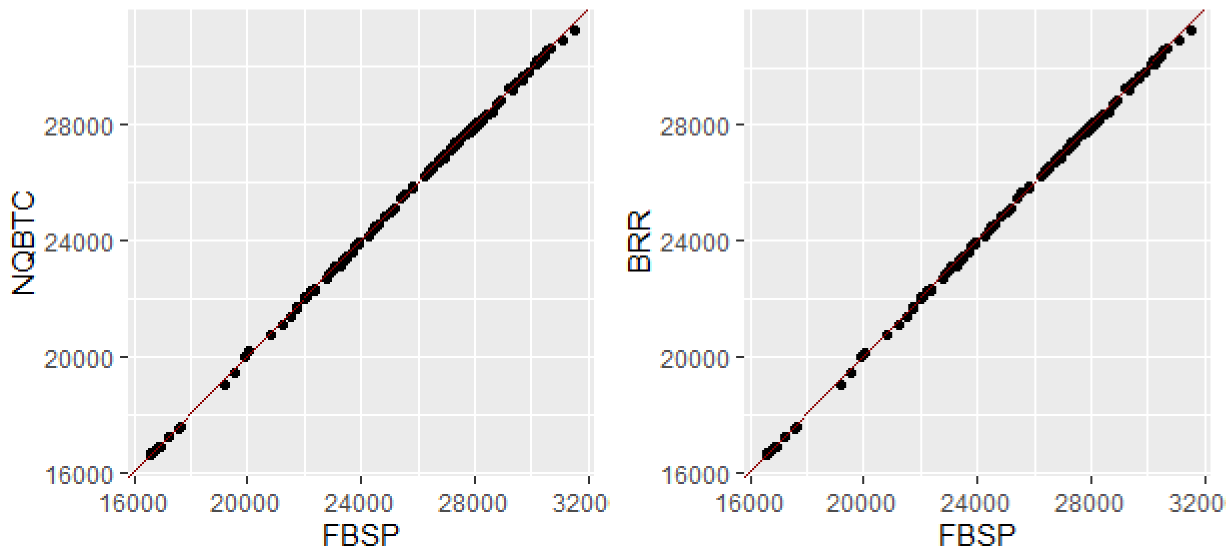
price for each contract. The calculation takes into account each contract's tenor and the tenor squared. This approach is designed to give more importance to contracts that are due for settlement in the near term, considering that the prices of these near-term contracts are more reliable indicators of the current spot price of Bitcoin and are also more heavily traded. The calculation produces a set of weighting factors, with each factor indicating the contribution of the corresponding Bitcoin Futures Contract to the estimated current spot price of Bitcoin. The estimated spot price is the component of the result corresponding to a tenor of zero days. The Sponsor and Digital Asset Advisor do not use data from Bitcoin exchanges or directly from spot Bitcoin trading activity in determining the value of Spot Bitcoin held by the Fund.

As an example, the table below demonstrates how the weights of each hypothetical Bitcoin Futures Contract change over time as the first contract gets closer to maturity.

	First future tenor				
Future	27 days	21 days	15 days	9 days	3 days
1st	130.81%	125.92%	120.39%	113.79%	105.33%
2nd	1.91%	-0.84%	-2.94%	-3.80%	-2.26%
3rd	-8.92%	-7.57%	-5.86%	-3.76%	-1.31%
4th	-9.19%	-7.05%	-4.89%	-2.78%	-0.83%
5th	-7.81%	-5.73%	-3.78%	-2.02%	-0.57%
6th	-6.26%	-4.47%	-2.86%	-1.47%	-0.39%
9th	-2.61%	-1.76%	-1.05%	-0.50%	-0.12%
12th	-0.29%	-0.14%	-0.04%	0.01%	0.01%
18th	2.35%	1.65%	1.04%	0.53%	0.14%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

The Sponsor believes that the accuracy of the proposed pricing methodology can be measured by comparing its pricing results to the real time version of Bitcoin price benchmarks such as CME CF BRR and NQBTCS. FBSP is derived from futures settlement prices, which are usually VWAPs from all contracts traded on Globex between 14:59:00 and 15:00:00 Central Time. Accordingly, for purposes of developing a useful proxy, the Sponsor's analysis uses the arithmetic average of the Benchmark closing prices at 14:59:00 and 15:00:00 CT, which is not sensitive to the fluctuations that occur within this minute. By design, this difference in the price metric introduces an artificial distortion in the comparison, resulting in figures that are less adherent than in reality. Therefore, the figures set forth below represent a conservative estimation of the true adherence between FBSP and the Benchmark, considering that the actual adherence to the Benchmark is higher than these results can indicate.[23]

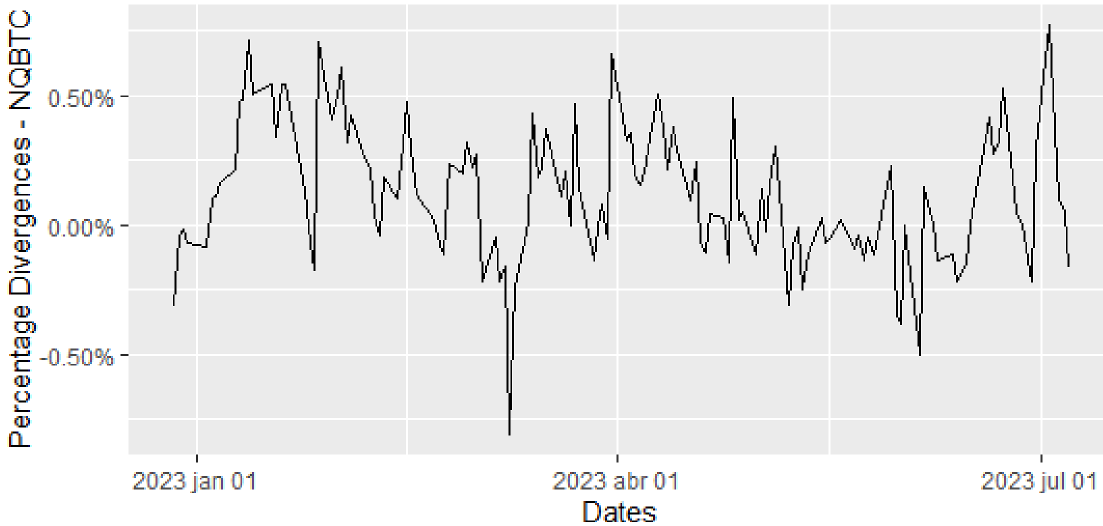
Using data available on Bloomberg on July 10, 2023, the Sponsor compared FBSP to NQBTCS and CME CF BRR from December 27, 2022 to July 7, 2023 and determined that FBSP behaves very similarly to both indexes. The following charts show a direct comparison between those two benchmark values and FBSP:

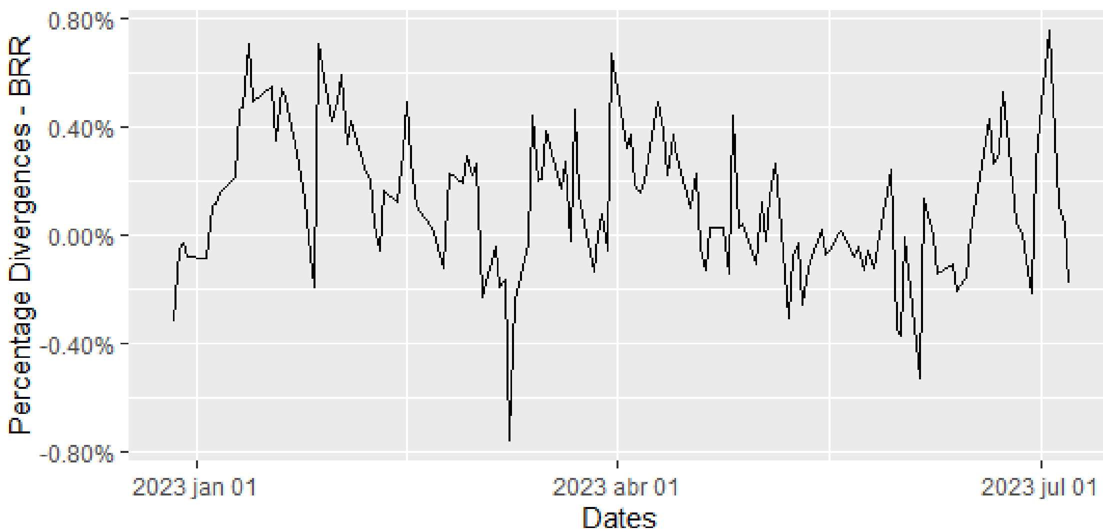


In the above charts, each black point indicates one day, and their proximity to the red line shows how similar FBSP is to each of NQBTCS and CME CF BRR. The correlations between FBSP and each of NQBTCS and CME CF BRR exceed 99.9%, and the mean absolute percentage divergences are 21 basis points ("bps") and 22 bps, respectively, while the median absolute percentage divergences are 18 bps and 17 bps, respectively.

The charts below provide another visualization of the results of this comparison, as time series of the percentage divergences:

23 The difference in the price metrics introduces an artificial distortion in the comparison. Indeed, a regression analysis shows that the ratio between the maximum and minimum spot prices within the Bitcoin Futures VWAP window is a significant variable that explains the absolute divergences between FBSP and the spot prices. The higher the ratio between the maximum and minimum spot prices, the higher expected absolute divergence between FBSP and the spot prices. The correlation of these two metrics in the case of the real time version of NQBTCS is approximately 30%, suggesting that the actual adherence between FBSP and the spot benchmarks is even higher than the figures discussed herein indicate.





These charts show that there are no clusters of abnormal divergences. In both cases, more than 90% of the days exhibit percentage divergences between -50 bps and +50 bps. The highest percentage divergence in absolute terms, with 81 bps for the NQBTCS and 76 bps for the CME CF BRR, was observed on March 9, 2023, and coincided with significant volatility in the Bitcoin markets; on that day, NQBTCS dropped 5.34% from $22,003.92 to $20,827.67 and the FBSP, which settles one hour later, dropped by 9.3%, from $22,055.85 to $20,012.10. The Sponsor notes that, even on the day with the highest percentage divergence between FBSP and the other two benchmarks, that percentage divergence was insignificant in comparison to the intraday volatility of Bitcoin itself and could be attributable to the different market structures of the regulated CME Market and the unregulated spot markets.

The Sponsor believes that this data strongly suggests that FBSP is a suitable choice for the NAV calculation, both for the settlement and the real time proxy, and that the following additional considerations further support the soundness of the FBSP methodology:

- Bitcoin is a highly volatile asset traded in multiple venues across the world, and divergences of the magnitude found in this analysis are not unusual across different price sources or exchanges.

- Although it is not a consensus, academic research[24] has found evidence that CME Bitcoin futures lead spot in the price discovery process, so the divergences presented here are impacted by the possibility that spot prices are delayed.

- As noted above, the mean absolute percentage divergences are 21 bps and 22 bps respectively, the median absolute percentage divergences are 18 bps and 17 bps, and March 9, 2023 was the day with the highest percentage divergence in absolute terms, with 81 bps for the NQBTCS and -76 bps for CME CF BRR. The Sponsor believes that these divergences between FBSP and the underlying benchmarks are in a reasonable range and support that FBSP closely tracks NQBTCS and CME CF BRR.

Finally, the Sponsor notes that, even considering that FBSP could create some level of uncertainty due to the potential divergences between the FBSP and the spot prices observed in unregulated markets, the authorized participants ("APs") are able to hedge potential exposure by buying the basket of futures that represents FBSP and selling it during the futures settlement window. In doing so, APs can emulate a situation where they know ex ante the value of the creation basket. The opposite trade can have the same effect for the case of redemptions. Thus, the APs providing liquidity on the secondary market during the day will always be in a position to hedge their exposure using exclusively the CME Market, which will make them more likely to provide liquidity to the Fund thus making its market price converge to its NAV.

Preventing Manipulation

While the Commission has raised valid concerns about the potential influence of unregulated Bitcoin markets on the daily settlement price on CME Market, the Sponsor believes that the proposed methodology described above provides a significant and sufficient degree of insulation from such influences, for the following reasons:

1. **Regulated market influence:** The daily settlement price of Bitcoin Futures Contracts on the CME Market, which is the basis for the NAV calculation of both futures contracts and physical holdings of the Fund, is primarily influenced by trading activity within the regulated futures market itself. This market is subject to stringent oversight and surveillance mechanisms designed to detect and deter

24 See, e.g., Wu, Jinghong; Xu, Ke. *Fractional cointegration in bitcoin spot and futures markets*. The Journal of Futures Markets. Vol. 41, Is. 9 (September 2021), available at: https://onlinelibrary.wiley.com/doi/epdf/10.1002/fut.22216#pane-pcw-references; Chang, Alexander and Herrmann, William and Cai, William. *Efficient Price Discovery in the Bitcoin Markets* (October 14, 2020), available at SSRN: https://ssrn.com/abstract=3733924; Kapar, Burcu; Olmo, Jose. *An analysis of price discovery between Bitcoin futures and spot markets*. Economics Letters, Vol. 174 (January 2019), available at: https://www.sciencedirect.com/science/article/abs/pii/S0165176518304440.

manipulative and fraudulent practices, thus significantly limiting the possible influence of unregulated Bitcoin markets on the daily settlement price.

2. **High liquidity and volume:** The CME Market is characterized by high liquidity and trading volume, such that any attempt to influence the daily settlement price through trading activity in other, unregulated Bitcoin markets would require a significant amount of capital and coordination. The Sponsor thus believes that any such manipulation attempts would be highly detectable by the CME Market's market surveillance.

3. **Complex pricing methodology:** The NAV calculation methodology is comprehensive and accounts for both the tenor and final settlement price of each futures contract. In addition, the FBSP used in the NAV calculation methodology incorporates all maturities of Bitcoin Futures Contracts, which exhibit a robust price relationship among themselves. As a result, attempting to manipulate these prices in a coordinated manner to generate a substantial impact on NAV would be very challenging for potential manipulators and likely financially unfeasible. The Sponsor thus believes that the complexity of the methodology provides an additional layer of protection against manipulation, as it would be extremely difficult for a manipulator to influence all these factors in a coordinated way to impact the Fund's NAV without leaving a detectable trail that would alert market surveillance.

4. **Focus on near-term contracts:** The Fund's methodology gives more importance to futures contracts that are due for settlement in the near term because such contracts are more heavily traded, and their prices are more reliable indicators of the current spot price of Bitcoin. The Sponsor believes that the methodology's focus on near-term contracts further reduces the potential for manipulation, as these contracts are less susceptible to manipulation due to their higher trading volumes and liquidity.

The Sponsor also believes that it is highly unlikely that a person attempting to manipulate the NAV of the Fund could do so successfully by trading on unregulated spot and derivatives markets. Because of direct arbitrage, it is reasonable to assume that the ETP's market price (in the secondary market) would be highly adherent to the Fund's Intraday Net Asset Value, since APs can always create and redeem shares of the Fund hedging with a basket of Bitcoin Futures Contracts and the value of the creation basket is determined based on the NAV of the Fund, which is calculated using the FBSP prices that is based on such basket of Bitcoin Futures Contracts. Consequently, the likelihood of a potential manipulator of the ETP to succeed by exclusively trading in unregulated Bitcoin markets would depend on how much the prices in these markets have an impact over the CME Bitcoin Futures Contracts prices. The likelihood that a potential manipulator would undertake such an effort is also decreased when considering the financial burden of manipulating the unregulated markets and the overall expected profitability of any such manipulation.

To further assess such likelihood, the Sponsor carried out the following analysis to investigate the relationship between prices from relevant unregulated Bitcoin markets and the prices of the CME Bitcoin Futures Contracts, to assess the impact that a manipulation on those markets would have on CME. The Sponsor collected one-minute bars data between January 18, 2023 and July 26, 2023[25] of prices for the nearest CME Bitcoin Futures Contract ("CME Futures") and the following alternative Bitcoin prices ("ABP"): spot Bitcoin (in USD) on each of NQBTCS's Core Exchanges,[26] spot Bitcoin (in USDT), and BTCUSDT USDs-Margined Perpetuals on Binance. For each day and each ABP, a simple regression model was estimated with one-minute CME Futures log-returns as the dependent variable, and two independent variables: (1) the log CME Futures closing price of the previous minute (as a control variable) and (2) the difference between the ABP log return and the CME Futures log return in the previous minute (as the variable of interest).

The estimated coefficients associated with the variable of interest are a measure of the expected response from the CME Futures (as measured by its returns) to a divergence between its own return information and the one from ABP in the near past (one-minute lagged returns). Such divergences are expected to occur in cases of manipulation. A higher coefficient (closer to one) would indicate that CME Futures are more sensitive to and strongly influenced by the divergence, while a lower coefficient (closer to zero) would suggest that CME Futures are less responsive and not significantly influenced by the information coming from ABP. The Sponsor believes that these coefficients can be considered a conservative estimation of the real impact that manipulation in an ABP would have over the CME Futures price because the estimations are calculated under normal circumstances rather than under a manipulative attack, in which some other indicators, such as abnormal volume and volatility, would warn market participants and undermine their perception of the attacked ABP as a reliable price reference.

The results of the Sponsor's analysis are summarized in the table below:[27]

	Estimated Parameters				Market Depth	
ABP	**Average**	**1st Decile**	**Median**	**9th Decile**	**+2% Depth**	**-2% Depth**
Coinbase (spot USD)	0.39	0.21	0.41	0.53	$10,317,109	$17,320,315
Binance (spot USDT)	0.36	0.15	0.38	0.52	$17,523,531	$42,136,404
Kraken (spot USD)	0.22	0.03	0.23	0.40	$28,189,731	$30,375,259
Bitstamp (spot USD)	0.17	0.03	0.18	0.33	$5,083,934	$4,831,827
Gemini (spot USD)	0.15	-0.01	0.16	0.30		
ItBit (spot USD)	0.08	-0.07	0.07	0.23		
Binance (perpetual USDT)	0.01	-0.07	0.00	0.09		

25 This date range represents days with intraday data available on Bloomberg as of July 27, 2023. Days with less than 40 observations for a given ABP were excluded from the analysis of such ABP.

26 The core exchanges as of December 31, 2022 were BitStamp, Coinbase, Gemini, itBit, and Kraken.

27 The market depth information was obtained from CoinMarketCap on July 19, 2023. The ABPs with blank cells in this table were not included in the July 19, 2023 snapshot.

The Sponsor's analysis suggests that the influence of ABP over the CME Futures prices is relatively low. For instance, if a would-be manipulator chose to attack Coinbase, which is an ABP with higher coefficients and thus higher potential to impact CME futures, the average coefficient of 0.39 means that in order to manipulate CME Futures prices by 1%, the would-be manipulator would have to distort Coinbase prices by more than 2.5% (1% divided by 0.39) on average. To be successful with 90% confidence (1st Decile) this manipulator would have to distort Coinbase prices by more than 4.7% (1% divided by 0.21). The Sponsor believes that its analysis supports that, even considering these conservative estimations, indirect manipulation would be extremely inefficient.

The market depth columns in the above table indicate that substantial financial resources, running into tens of millions of dollars, are present on both sides of the order book for the most influential ABPs (even without including hidden orders, bots, and arbitrageurs that effectively enhance liquidity). The considerable financial commitment that would be required makes the manipulation of these prices an expensive endeavor.

The Sponsor believes that its analysis demonstrates that the low efficiency of attempts to manipulate ABPs, coupled with the significant cost involved in influencing impactful ABPs, makes potential manipulation of spot Bitcoin markets an unattractive proposition, and that it is therefore highly unlikely that a potential manipulator of the ETP could succeed by exclusively trading in unregulated Bitcoin markets. The combination of the high costs and the inefficiencies associated with manipulation makes it a daunting and unprofitable venture.

In summary, while the Sponsor acknowledges the potential for influence from trades settled in unregulated Bitcoin markets, the Sponsor believes that the NAV calculation methodology, coupled with the inherent characteristics of the CME, provides a significant degree of protection against such influence being deliberately used to manipulate the Fund's market price or NAV without it being subject to detection by CME market surveillance.

Investment Strategy

The Sponsor believes that the investment strategy of the Fund is designed to mitigate the risk of manipulation by diversifying its holdings and is responsive to the Commission's concerns with respect to an ETP that holds spot Bitcoin. Instead of holding 100% spot Bitcoin, which could make it more susceptible to price manipulation in the spot market, the Fund will hold a mix of Spot Bitcoin, Bitcoin Futures Contracts, and cash. This diversified portfolio is subject to investment restrictions, which further reduces the potential for manipulation, as explained below:

1. **Diversification:** By holding a combination of Spot Bitcoin, Bitcoin Futures Contracts, and cash, the Fund reduces its exposure to any single asset class. This diversification also makes it more difficult for a would-be manipulator to influence the NAV of the Fund by manipulating the price of spot Bitcoin alone;

for instance, even if a manipulator were able to influence the spot price of Bitcoin, their actions would only affect a portion of the Fund's portfolio, thereby limiting the overall impact of such manipulation on the Fund's NAV.

2. **Investment restrictions:** The Fund's holdings of Spot Bitcoin would be subject to investment restrictions, which are further discussed below. These restrictions cap the amount of Spot Bitcoin that the Fund can hold, further reducing the potential for manipulation by, for example, preventing the Fund from becoming so large in relation to the spot market that it could be manipulated without influencing the futures market. The Sponsor believes that these investment restrictions ensure that any significant trading activity aimed at manipulating the Fund would likely spill over into the CME Market, a regulated market with robust surveillance mechanisms in place to detect and deter manipulation, and with which the Exchange could receive information pursuant to common ISG membership.

3. **Reduced dependence on spot market:** By holding Bitcoin Futures Contracts and cash in addition to Spot Bitcoin, the Fund reduces its dependence on the spot market, thereby mitigating concerns about potential manipulation in unregulated Bitcoin spot exchanges. Instead, the Fund will rely on Bitcoin Futures Contracts and Bitcoin futures EFPs that are traded on the CME Market, a regulated exchange, which provides a higher level of transparency and oversight compared to unregulated spot exchanges.

4. **Dynamic adjustment:** The mix of Spot Bitcoin, Bitcoin Futures Contracts, and cash in the Fund's portfolio can be dynamically adjusted based on market conditions and regulatory developments. This flexibility allows the Fund to respond quickly to any signs of potential manipulation or other market abuses, further enhancing its resilience against manipulation.

In summary, by diversifying its holdings and imposing investment restrictions, the Fund reduces its vulnerability to manipulation in any single market, thereby protecting investors and maintaining the integrity of the Fund.

<u>Investment Restrictions on Spot Bitcoin</u>

According to the Sponsor, the Fund will be subject to investment restrictions on Spot Bitcoin (the "Investment Restrictions") that are specific constraints on its exposure to Bitcoin, particularly with respect to spot holdings. These investment restrictions are designed to mitigate the risk of manipulation of the Fund's Shares by insulating the Fund from events impacting the Bitcoin spot market, are not fixed, and may be adjusted based on factors such as the Commission's recognition of the CME as a regulated market of significant size related to spot Bitcoin, the NAV of the Fund, and the prevailing trading conditions on the core exchanges of the Benchmark.

The Sponsor believes that the Investment Restrictions are intended to ensure that the Fund's notional exposure to Bitcoin will be restricted to a set proportion and are currently set at 100%, of the 30-day Average Daily Traded Volume ("ADTV") on the core exchanges of the NQBTCS that are subject to regulatory and reporting rules in the United States, including companies that are publicly traded in the United States.[28] The Sponsor believes that the Investment Restrictions serve two main purposes:

1. They deter potential manipulative actions directed towards the Fund's Shares by making the cost-benefit tradeoff highly unfavorable for the manipulator. To manipulate the Fund's price using an unregulated spot market, a manipulator would need to transact a volume that surpasses the Fund's total exposure in spot Bitcoin, making the potential costs of manipulation outweigh the benefits.

2. They ensure that the Fund's trading activities do not become the primary driving force behind price variations in the Bitcoin spot market. By restricting the Fund's notional exposure to a proportion of the ADTV, this constraint ensures that the Fund's trading activities are always a fraction of the overall market activity, thereby reducing the potential for the Fund to unduly influence market prices.

In summary, the Sponsor believes that the Investment Restrictions are a key tool in the Fund's strategy to prevent manipulation. By limiting the Fund's exposure to the spot market and ensuring that the Fund's trading activities do not become the predominant influence on market prices, these restrictions provide a robust defense against potential manipulation attempts.

<u>Creations and Redemptions</u>

According to the Sponsor (and as mentioned above), the Fund uses cash creations and redemptions. An AP delivers cash to the Fund instead of Spot Bitcoin in the creation process, and an AP receives cash instead of Spot Bitcoin in the redemption process. The cash delivered or received during the creation or redemption process is then used by the Sponsor to purchase or sell Bitcoin Futures Contracts with an aggregate market value that approximates the amount of cash received or paid upon the creation or redemption. On a daily basis, the Sponsor will analyze the current portfolio allocation of the Fund between Spot Bitcoin and Bitcoin Futures Contracts and, based on the Investment Restrictions and target portfolio exposure, may decide to engage in an EFP transaction on CME to buy or sell Spot Bitcoin for the equivalent position in Bitcoin Futures Contracts.

The Sponsor believes that this method protects against manipulation in the creation and redemption process and of the Fund's market price from trading in unregulated spot markets. Investment in spot Bitcoin will not be directly related to creation or redemption of Fund Shares, but instead on target portfolio exposure, such that trades can be performed in smaller sizes and at unpredictable times, reducing the risk of

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28 The Sponsor believes that the methodology could significantly reduce the potential influence of malicious agents targeting the Fund by only accepting data from sources subject to regulatory regimes that obligate them to ensure the integrity of data reported.

creation or redemption manipulation.

The Sponsor believes that the use of cash creations and redemptions in the Fund serves as a deterrent to manipulation in several ways:

1. **Decoupling from spot market:** By using cash instead of Spot Bitcoin for creations and redemptions, the Fund's operations are decoupled from the unregulated spot market. The creation and redemption process does not directly influence the unregulated spot market or vice versa, thereby reducing the potential for manipulation through this process.

2. **Unpredictable trading times:** The Fund's investment in Spot Bitcoin is not directly related to creations or redemptions, but instead on target portfolio exposure. As a result, trading can be done in smaller sizes and at unpredictable times, making it harder for potential manipulators to time their actions.

3. **Reduced impact of large trades:** By effecting creations and redemptions in cash, large trades that could potentially influence the unregulated spot market are mitigated. Instead, these trades are absorbed in the CME Market, which is sufficiently liquid and can reasonably be relied upon to assist in detecting and deterring fraudulent or manipulative misconduct.

4. **Reduced influence of Bitcoin sourced from unregulated spot exchanges:** In-kind creation may create a direct relationship between the Fund's market price and prices on unregulated exchanges such as Binance by arbitrage, because an AP could buy or sell Bitcoin from Binance and receive or deliver Bitcoin from the Fund through the creation or redemption process. With creations and redemptions in cash, however, that arbitrage cannot be executed without going through pricing and trading on the CME Market.

The Sponsor believes that the Fund's creation and redemption process is designed to minimize the potential for market manipulation, thereby protecting investors and maintaining the integrity of the markets.

Exchange for Physical Transactions

EFP transactions, also known as Exchange for Related Position or EFRP transactions,[29] are a type of private agreement between two parties to trade a futures position for the underlying asset. In the context of the Fund, these transactions will be used to purchase and sell Spot Bitcoin by delivering or receiving the equivalent futures position.

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[29] See https://www.cmegroup.com/clearing/operations-and-deliveries/accepted-trade-types/efp-efr-eoo-trades.html.

In an EFP transaction, two parties exchange equivalent but offsetting positions in a Bitcoin Futures Contract and the underlying physical Bitcoin. One party is the buyer of futures and the seller of the physical Bitcoin, and the other party takes the opposite position (seller of futures and buyer of physical). While the EFP is a privately-negotiated transaction between the two parties to the trade, the consummated transaction must be reported to CME Market and its conditions and prices are subject to CME Market's market regulation oversight.

Because both sides of the trade track the same benchmark (Bitcoin), an EFP is market-neutral. As such, the pricing of an EFP is quoted in terms of the basis between the price of the futures contract and the level of the underlying Bitcoin. Because the Fund proposes to use EFP transaction to purchase and sell Spot Bitcoin, the only non-cash assets held by the Fund (Bitcoin Futures Contracts and Bitcoin) are traded on CME Market. Because the Exchange and the CME Market are both ISG members, information shared by the CME Market with the Exchange can be used to assist in detecting and deterring fraudulent or manipulative misconduct related to those assets.

In the proposed strategy for the operation of the Fund, every time the Fund is required to purchase or sell Bitcoin, the Sponsor will perform a request for quotation ("RFQ") auction with multiple market makers using the FBSP as the reference price for spot and the settlement price as the reference for the futures contracts. Market makers present their quotes in terms of basis points ("bps"), where 1bp = 0.01% over the FBSP. The Sponsor will then confirm the trade with the best offer and report the EFP transaction to the CME Market.

The Sponsor believes that EFP transactions are a powerful tool in preventing market manipulation for several reasons:

1. **Regulated environment:** EFP transactions occur on the CME Market, which is a regulated exchange with processes in place to prevent market manipulation, including monitoring transaction prices and investigating potential manipulations, as outlined in CME Rule 538.[30] All transactions are monitored and subject to rules and regulations designed to prevent market manipulation. Moreover, all parties to an EFP transaction are required to maintain all records relevant to the transaction pursuant to CFTC Regulation 1.35, thus providing the ability for CME and the CFTC to conduct surveillance inquiries and investigations in an efficient and effective manner for the protection of customers and ensuring market integrity. Furthermore, as an additional protection measure, to enforce the highest standard on the sourcing of such underlying physical Bitcoin, the Sponsor represents that it will only participate in EFP transactions with broker-dealers that are FINRA regulated or part of corporate groups that are, which would provide another layer of regulatory oversight in how Bitcoin exposures are sourced, as those counterparties already have an ongoing commercial relationship with the

30 See https://www.cmegroup.com/rulebook/files/cme-group-Rule-538.pdf.

Sponsor and are active participants in trading Bitcoin regulated products worldwide.

2. **Surveillance-sharing agreement:** NYSE Arca and the CME Market are both members of the ISG, which allows for the sharing of information and cooperation in investigations, which can help detect and deter market manipulation.

3. **Transparency:** EFP transactions must be reported to the CME Market, which is a regulated exchange, providing transparency and making it more difficult for manipulative practices to go unnoticed. Parties to EFP transactions must maintain all records relevant to the CME futures contract and the related position transaction, pursuant to CFTC Regulation 1.35, adding another layer of regulatory scrutiny and transparency. In addition, EFP transactions volumes are required to be reported with the daily large trader positions by each clearing member, omnibus account, and foreign broker.

4. **Market-neutrality:** Because EFP transactions involve exchanging equivalent but offsetting positions, they are market-neutral. As a result, EFP transactions do not create imbalances in the market that could be exploited for manipulative purposes.

5. **Unpredictability:** EFP transactions are privately negotiated between the fund and other parties, making them less predictable and therefore more difficult to manipulate.

The Sponsor believes that, by using EFP transactions to purchase and sell spot Bitcoin, the Fund would ensure that its operations are conducted in a regulated, transparent, and market-neutral manner, significantly reducing the dependency on and the risk of manipulation from unregulated spot exchanges.

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In connection with this proposed rule change, the Sponsor will:

(1) issue a press release informing the public of the date on which the Fund will first apply its proposed updated Benchmark and investment strategy;

(2) file the applicable press release with the Commission by means of Form 8-K, which will be available on the Fund's website; and

(3) file an amendment to its registration statement relating to the proposed change.[31]

(b) Statutory Basis

[31] The Sponsor further represents that it will manage the Fund as described in the Approval Order and will not implement the changes described herein until its Registration Statement and this proposed rule change are effective and operative.

The basis under the Act for this proposed rule change is the requirement under Section 6(b)(5)[32] that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to, and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

The Exchange believes the proposed rule change is designed to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest because it would reflect the change in the Fund's name, as set forth in the Registration Statement. Specifically, the proposed rule change would reflect a change in the Fund's name from the Hashdex Bitcoin Futures ETF to the Hashdex Bitcoin ETF. The proposed change is also designed to remove impediments to and perfect the mechanism of a free and open market, promote just and equitable principles of trade, and protect investors and the public interest by ensuring that the Fund's name is consistent with the Registration Statement and reflects the Fund's proposed updated investment strategy.

The Exchange believes that the proposed rule change is designed to remove impediments to and perfect the mechanism of a free and open market and, in general to protect investors and the public interest because the NQBTCS would be an appropriate replacement for the closing settlement prices of BTC Contracts listed on the CME in calculating the Benchmark. The Exchange believes that NQBTCS would provide reliable pricing on which to base the Benchmark because it is administered by an independent index administrator, it is intended to provide an institutional-grade reference price for Bitcoin, and the pricing methodology underlying the NQBTCS is reasonably designed to be resistant to potential price manipulation. Specifically, NQBTCS is calculated via a rigorous and publicly available methodology that incorporates trade data captured from cryptocurrency exchanges that meet eligibility criteria of the NCI and that is designed to adjust for variances in price, volume and volatility across a wide range of sources, as well as to protect against the impact of anomalous trading activity that could impact the NQBTCS price. Accordingly, the proposed use of NQBTCS would remove impediments to and perfect the mechanism of a free and open market and, in general to protect investors and the public interest by allowing the Fund to calculate a Benchmark that would track Bitcoin pricing more broadly, consistent with the proposed change to the Fund's investment strategy as discussed above.

The Exchange believes the proposed rule change is designed to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest because it would amend representations relating to the Fund's updated investment strategy, through which the Fund would seek to achieve its investment objectives by investing in both Bitcoin futures and Spot Bitcoin, in addition to being able to hold part of its net assets in cash. The Exchange believes that the Fund's strategy of holding a mix of Spot Bitcoin, Bitcoin futures and cash would

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[32] 15 U.S.C. 78f(b)(5).

remove impediments to and perfect the mechanism of a free market and protect investors and the public interest because it would allow the Fund to limit its exposure to any single asset class, while offering investors exposure to Spot Bitcoin without relying on unregulated products or markets. The Exchange also believes that the Sponsor has designed the Fund to includes features intended to provide a robust framework for mitigating the risks of market manipulation, such as its proposed investment strategy, its use of futures-based pricing for Spot Bitcoin, the proposed Investment Restrictions, the use of EFP transactions on the CME Market for Spot Bitcoin, and the use of cash creations and redemptions, which would remove impediments to and perfect the mechanism of a free and open market and promote the protection of investors and the public interest. The Exchange also believes that, given these features of the Fund, the CME Market could be considered the regulated market of significant size in relation to the Fund and that there is a reasonable likelihood that a person attempting to manipulate the Fund would also have to trade on the CME Market to do so, such that information shared pursuant to NYSE Arca and the CME Market's common ISG membership would aid the Exchange in detecting and deterring potential misconduct.

As noted above, prior to implementing the proposed change, the Sponsor will (1) issue a press release informing the public of the date the Fund will first employ the updated Benchmark and investment strategy; (2) file the applicable press release with the Commission by means of Form 8-K, which will be available on the Fund's website; and (3) file an amendment to the Fund's registration statement relating to the proposed change. The Exchange believes that such press release and registration statement amendment would protect investors and the public interest by providing notification to investors of the proposed change prior to its implementation. The Exchange also believes that the proposed change is designed to protect investors and the public interest because, except for the changes noted above, all other representations made in the Approval Order remain unchanged, and the Fund will continue to comply with all initial and continued listing requirements.

Finally, the Exchange believes that the proposed rule change is designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the continued listing and trading of Trust Issued Receipts based on Bitcoin that will enhance competition among market participants, to the benefit of investors and the marketplace. As noted above, the Exchange has in place surveillance procedures that are adequate to properly monitor trading in the Shares in all trading sessions and to deter and detect violations of Exchange rules and applicable federal securities laws.

4. <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purpose of the Act. The Exchange notes that the proposed rule change will facilitate the continued listing and trading of the Fund and will enhance competition among market participants, to the benefit of investors and the marketplace.

5. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

The Exchange has neither solicited nor received written comments on the proposed rule change.

6. Extension of Time Period for Commission Action

Not applicable.

7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)

Not applicable.

8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission

The proposed rule change is not based on the rules of another self-regulatory organization or of the Commission.

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

Exhibit 1 – Form of Notice of the Proposed Rule Change for Publication in the Federal Register

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34- ; File No. SR-NYSEARCA-2023-58)

[Date]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing of Proposed Rule Change to Reflect a Change in the Name of the Hashdex Bitcoin Futures ETF and Amend Representations

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 ("Act")[2] and Rule 19b-4 thereunder,[3] notice is hereby given that, on August 25, 2023, NYSE Arca, Inc. ("NYSE Arca" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to (i) reflect a change in the name of the Hashdex Bitcoin Futures ETF (the "Fund") and (ii) amend representations regarding the investment objective and strategy of the Fund, shares of which are currently listed and traded on the Exchange pursuant to NYSE Arca Rule 8.200-E, Commentary .02 (Trust Issued Receipts). The proposed rule change is available on the Exchange's website at www.nyse.com, at the principal office of the Exchange, and at the Commission's Public Reference Room.

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

2 15 U.S.C. 78a.

3 17 CFR 240.19b-4.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Commission previously approved the listing and trading of shares of the Fund (the "Shares") on the Exchange pursuant to NYSE Arca Rule 8.200-E, Commentary. 02.[4] NYSE Arca Rule 8.200-E, Commentary. 02 governs the listing and trading of Trust Issued Receipts. The purpose of this rule filing is to (i) reflect a change to the name of the Fund and (ii) amend representations relating to the Fund's investment objective and strategy.

Name Change

The Approval Order stated that the Fund's name would be the Teucrium Bitcoin Futures Fund, and the Fund's name subsequently changed to be the Hashdex Bitcoin Futures ETF pursuant to an April 18, 2022 amendment to the Fund's registration statement.[5] The Exchange now proposes to update the name of the Fund to the Hashdex Bitcoin ETF to reflect the Fund's

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[4] See Securities Exchange Act Release No. 34-94620 (April 6, 2022), 87 FR 21676 (April 12, 2022) (SR-NYSEArca-2021-53) (Order Approving a Proposed Rule Change, as Modified by Amendment No. 2, To List and Trade Shares of the Teucrium Bitcoin Futures Fund Under NYSE Arca Rule 8.200-E, Commentary .02 (Trust Issued Receipts)) (the "Approval Order").

[5] On April 18, 2022, Teucrium Commodity Trust filed with the Commission Pre-Effective Amendment No. 2 to the registration statement on Form S-1 under the Securities Act of 1933 (the "Securities Act") (File No. 333-256339) changing the name of the Fund from Teucrium Bitcoin Futures Fund to Hashdex Bitcoin Futures ETF.

updated investment strategy, further discussed below. This new name for the Fund is reflected in the Form S-1 filed by the Tidal Commodities Trust I (the "Trust") on July 21, 2023.[6]

Updated Investment Objective

The Approval Order stated that, according to the Exchange, the Chicago Mercantile Exchange, Inc. ("CME") offers two Bitcoin futures contracts, one contract representing five (5) Bitcoins ("BTC Contract") and another contract representing one-tenth of one (0.10) Bitcoin ("MBT Contract").[7] Each BTC Contract and MBT Contract settles daily to the BTC Contract volume-weighted average price ("VWAP") of all trades that occur between 2:59 p.m. and 3:00 p.m., Central Time, the settlement period, rounded to the nearest tradable tick. BTC Contracts and MBT Contracts each expire on the last Friday of the contract month, and the final settlement value for each contract is based on the CME CF Bitcoin Reference Rate ("CME CF BRR").[8]

The Approval Order stated that the Fund's investment objective is to have the daily changes in the net asset value ("NAV") of the Shares reflect the daily changes in the price of a specified benchmark ("Benchmark"). The Approval Order also stated that the Benchmark is calculated using the closing settlement prices of BTC Contracts listed on the CME and that the

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6 On July 21, 2023, Tidal Commodities Trust I (the "Trust") filed with the Commission a registration statement on Form S-1 under the Securities Act (15 U.S.C. 77a) (File No. 333-_______) (the "July 21, 2023 Form S-1") reflecting the Trust's assumption of management and control of Fund from Teucrium Commodity Trust. The Shares of the Fund were originally issued by the Teucrium Commodity Trust pursuant to a registration statement on Form S-1 filed with the Commission on May 20, 2021 (File No. 333-256339). The Exchange will submit a separate proposed rule change relating to the transfer of management and control of the Fund from Teucrium Commodity Trust to the Trust.

7 BTC Contracts began trading on the CME Globex ("Globex") trading platform on December 15, 2017, and are cash-settled in U.S. dollars. MBT Contracts began trading on the Globex trading platform on May 3, 2021, under the ticker symbol "MBT" and are also cash-settled in U.S. dollars.

8 The CME CF BRR aggregates the trade flow of major Bitcoin spot platforms during a specific calculation window into a once-a-day reference rate of the U.S. dollar price of Bitcoin.

Fund's Sponsor[9] would employ a "neutral" investment strategy that is intended to track the changes in the Benchmark. To achieve its objective, the Fund currently only invests in BTC Contracts and MBT Contracts ("Bitcoin Futures Contracts") and in cash and cash equivalents. The Fund rolls its futures positions on a regular basis and does not carry futures positions all the way to cash settlement.

The Exchange now proposes to amend the representation in the Approval Order to modify the Benchmark to be calculated using the Nasdaq Bitcoin Reference Price - Settlement (the "NQBTCS"),[10] which ultimately tracks the price of Bitcoin, instead of the closing prices of BTC Contracts listed on the CME.[11] According to the Sponsor, the NQBTCS is designed to allow institutional investors to track the price of Bitcoin by applying a rigorous methodology to trade data captured from cryptocurrency exchanges that meet eligibility criteria of the Nasdaq Crypto Index ("NCI"). The NQBTCS is calculated once every trading day through the application of a publicly available rules-based pricing methodology to a diverse collection of pricing sources to provide an institutional-grade reference price for Bitcoin.[12] The pricing methodology is designed to account for variances in price across a wide range of sources, each of

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9 The July 21, 2023 Form S-1 also reflects that Toroso Investments LLC has assumed role of the Sponsor of the Trust from a change from Teucrium Trading, LLC. References to "Sponsor" hereinafter refer to Toroso Investments LLC as Sponsor of the Trust.

10 See https://indexes.nasdaqomx.com/Index/Overview/NQBTCS.

11 On August 25, 2023, the Trust confidentially filed a draft registration statement under the Securities Act (the "Registration Statement"). The Jumpstart Our Business Startups Act (the "JOBS Act"), enacted on April 5, 2012, added Section 6(e) to the Securities Act. Section 6(e) of the Securities Act provides that an "emerging growth company" may confidentially submit to the Commission a draft registration statement for confidential, non-public review by the Commission staff prior to public filing, provided that the initial confidential submission and all amendments thereto shall be publicly filed not later than 21 days before the date on which the issuer conducts a road show, as such term is defined in Securities Act Rule 433(h)(4). An emerging growth company is defined in Section 2(a)(19) of the Securities Act as an issuer with less than $1,000,000,000 total annual gross revenues during its most recently completed fiscal year. The Trust meets the definition of an emerging growth company and consequently submitted its Registration Statement to the Commission on a confidential basis.

12 See https://indexes.nasdaqomx.com/docs/methodology_NCI.pdf.

which has been vetted according to criteria identified in the methodology. Specifically, the settlement value is the Time Weighted Average Price ("TWAP") calculated across VWAPs for each minute in the settlement price window, which is between 2:50:00 and 3:00:00 P.M. New York time. Where there are no transactions observed in any given minute of the settlement price window, that minute is excluded from the calculation of the TWAP.

According to the Sponsor, the NQBTCS methodology also utilizes penalty factors to mitigate the impact of anomalous trading activity such as manipulation, illiquidity, large block trading, or operational issues that could compromise price representation. Three types of penalties are applied: abnormal price penalties, abnormal volatility penalties, and abnormal volume penalties. These penalties are defined as adjustment factors on the weight of information from each exchange that contributes pricing information based on the deviation of an exchange's price, volatility, or volume from the median across all exchanges. For example, if a core exchange's price is 2.5 standard deviations away from the median price, its price penalty factor will be a 1/2.5 multiplier.

Finally, as a means of achieving the highest degrees of confidence in the reported volume, data is sourced only from "core exchanges" that are screened, selected, and approved by the Nasdaq Crypto Index Oversight Committee (the "NCIOC"). Core exchanges must: (1) have strong forking controls; (2) have effective anti-money laundering (AML) controls; (3) have reliable and transparent application programming interface (API) that provides real-time and historical trading data; (4) charge fees for trading and structure trading incentives that do not interfere with the forces of supply and demand; (5) be licensed by a public independent governing body; (6) include surveillance for manipulative trading practices and erroneous transactions; (7) evidence a robust IT infrastructure; (8) demonstrate active capacity management; (9) evidence cooperation with regulators and law enforcement; and (10) have a minimum market representation for trading volume. Additionally, the NCIOC conducts further diligence to assess an exchange's eligibility and will consider additional criteria such as the exchange's organizational and ownership structure, security history, and reputation; the list of existing core exchanges will be recertified by the NCIOC at minimum on an annual basis.

The Sponsor believes that the NQBTCS is a suitable replacement for the closing settlement prices of BTC Contracts listed on the CME in calculating the Benchmark because (i) it would provide reliable pricing for purposes of tracking the actual performance of spot Bitcoin, (ii) it is administered by an independent index administrator, and (iii) its methodology is specifically designed to mitigate potential manipulation coming from unregulated markets. Specifically, the Sponsor believes that (i) by tracking the actual price of spot Bitcoin, which would better represent the Fund's strategy, NQBTCS is a Benchmark that will be more transparent and adequate for the Fund's investors; (ii) using a Benchmark that has its own independent index administrator provides investors the best practices in governance and accountability and benchmark quality; and (iii) the pricing methodology underlying the NQBTCS is designed to be resistant to potential price manipulation by applying a robust methodology to trade data captured from NCI core exchanges, which have to meet strict criteria created by the NCIOC, thereby drawing on a diverse collection of trustworthy pricing sources to provide an institutional-grade reference price for Bitcoin that accounts for variances in price across a wide range of sources and that adjusts to mitigate the impact of anomalous trading activity that could compromise the integrity of the NQBTCS price.

The Exchange next proposes to amend a representation regarding the investment objective of the Fund to provide that, as set forth in the Registration Statement, the Fund will seek to achieve its investment objective by investing not only in Bitcoin Futures Contracts, but also in physical Bitcoin to the extent allowed by the Fund's investment restrictions on spot Bitcoin, using a pricing methodology, for purposes of calculating the Fund's NAV, that will derive spot Bitcoin prices from Bitcoin Futures Contracts and not from unregulated exchanges, as further explained below ("Spot Bitcoin"). In doing so, the Sponsor expects to provide a better tracking of Bitcoin exposure to investors, while still using Bitcoin Futures Contracts in its strategy and relying on the CME as its "market of relevant size." In particular, to avoid any exposure to potential manipulation from unregulated exchanges, the Fund's NAV will be calculated using a spot Bitcoin price derived from CME futures prices, as further explained below, and the Fund expects to purchase and sell physical Bitcoin via CME's Exchange for Physical Transactions, which are subject to CME's market surveillance. The Sponsor believes that the Fund's holding a combination of Bitcoin Futures Contracts, Spot Bitcoin, and cash could significantly mitigate the risk of market manipulation while still providing the market with a regulated product that tracks the actual price of Bitcoin, creating a secure way for U.S. investors to gain exposure to spot Bitcoin without having to rely on unregulated products, offshore regulated products, or indirect strategies such as investing in publicly traded companies that hold Bitcoin.

Except for the changes noted above, all other representations made in the Exchange's previous rule filing to list and trade Shares of the Fund remain unchanged and will continue to constitute continuing listing requirements for the Fund. As set forth in the Approval Order, the Fund will continue to comply with the requirements of Rule 8.200-E, Commentary. 02.

<u>Holdings in Bitcoin Futures, Bitcoin Spot and Cash</u>

In determining whether to approve listing and trading of new Exchange-Traded Products

("ETPs"), the Commission conducts a thorough analysis to ensure the proposal is consistent with Section 6(b)(5) of the Act. Section 6(b)(5) of the Act mandates 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. With respect to ETPs, the Commission often considers how the listing exchange would access necessary information to detect and deter market manipulation, illegal trading, and other abuses, which listing exchanges may accomplish by entering into a comprehensive surveillance-sharing agreement with other entities, such as the markets trading the ETP's underlying assets. Historically, for commodity-trust ETPs, there has always been at least one regulated market of significant size for trading futures on the underlying commodity — whether gold, silver, platinum, palladium, or copper. Then, the listing exchange would enter into surveillance-sharing agreements with, or hold Intermarket Surveillance Group ("ISG") membership in common with, that regulated market.[13]

In the context of Bitcoin, the CME Bitcoin Futures Market (the "CME Market") is currently the only regulated market in the U.S. However, there is still a lack of consensus on whether it is of "significant size" in relation to the spot Bitcoin market based on the test historically applied by the Commission.

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[13] 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 at 37592-94 (Aug. 1, 2018) (SR-BatsBZX-2016-30) (the "Winklevoss Order"); "); Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the Bitwise Bitcoin ETF Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 87267 (Oct. 9, 2019), 84 FR 55382 at 55383, 55410 (Oct. 16, 2019) (SR-NYSEArca-2019-01) (the "Bitwise 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 (February 26, 2020), 85 FR 12595 at 12609 (March 3, 2020) (SR-NYSEArca-2019-39) (the "Wilshire Phoenix Order").

The Commission has previously interpreted the terms "significant market" and "market of significant size" to include a market (or group of markets) where:

(1) 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, such that a surveillance-sharing agreement would assist the ETP listing market in detecting and deterring misconduct; and

(2) It is unlikely that trading in the ETP would be the predominant influence on prices in that market.[14]

With respect to the first prong of the Commission's interpretation, the Commission has previously explained that the lead/lag relationship between the Bitcoin futures market and the spot market is central to understanding this first prong. With respect to the second prong, the Commission's prior analysis has focused on the potential size and liquidity of the ETP compared to the size and liquidity of the market.

Interrelationship between the CME and the Fund

The Commission has previously stated that "the interpretation of the term market of significant size depends on the interrelationship between the market with which the listing exchange has a surveillance-sharing agreement and the proposed ETP."[15] The Sponsor intends to adopt an innovative approach to mitigate the risks of fraud and manipulation that are unique to the Fund. The core principle of this approach would be to structure the operation of the Fund

[14] See, e.g., Winklevoss Order, 83 FR at 37594. The Commission further noted that "[t]here 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." Id.

[15] See Securities Exchange Act Release No. 95180 (June 29, 2022), 87 FR 40299 at 40312 (July 6, 2022) (SR-NYSEArca-2021-90) (Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, to List and Trade Shares of Grayscale Bitcoin Trust Under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares)).

such that the regulated market of significant size in relation to the Fund is the CME Market because it is the same market on which the Fund trades its non-cash assets. Therefore, the Sponsor's strategy aims to establish a comprehensive interrelationship between the CME Market and the Fund to unequivocally classify the CME Market as the market of significant size in relation to the ETP. The Sponsor notes that, although the Fund may, as proposed, hold physical Bitcoin, it does not rely on any information or services from unregulated Bitcoin spot exchanges (such as Coinbase or Binance). Therefore, no spot Bitcoin exchange could be considered a "market of relevant size" in relation to the Fund.

The Sponsor has designed the Fund to have five novel features that underscore its significant interrelationship with the CME:

1. **Investment strategy:** The Fund will hold a mix of Spot Bitcoin, Bitcoin Futures Contracts, and cash and cash equivalents, subject to certain investment restrictions (as further discussed in the section below entitled "Investment Restrictions on Spot Bitcoin").
2. **Futures-based pricing for Spot Bitcoin:** The price determination for Spot Bitcoin holdings in the NAV calculation will be derived from the CME Market's Bitcoin futures curve. As a result, the price of Spot Bitcoin holdings will depend solely on Bitcoin futures settlement prices on the CME Market and will not depend directly on price information from unregulated spot Bitcoin markets (as further discussed in the section below entitled "Futures-Based Spot Price ("FBSP")).
3. **Investment restrictions on Spot Bitcoin:** The Fund will be subject to dynamic investment restrictions that are designed to mitigate the risk that Shares of the Fund

could be manipulated by manipulating the Bitcoin spot market and ensuring that the CME Market is the only "market of significant size" with respect to the Fund.

4. **Physical Bitcoin purchases on the CME Market:** The Fund will use the CME Market's Exchange for Physical ("EFP")[16] transactions to acquire and dispose of Spot Bitcoin, instead of transactions on unregulated spot exchanges. Accordingly, the only non-cash assets held by the Fund (Bitcoin Futures Contracts and Bitcoin via EFP) would be traded on the CME Market, such that the exchanges' ability to share information pursuant to their common ISG membership could assist in detecting and deterring fraudulent or manipulative misconduct related to those assets.

5. **Creations and redemptions:** The Fund will use cash creations and redemptions[17] to deter intraday Share price manipulation that could originate from in kind creation or redemption from physical spot Bitcoin sourced in unregulated spot markets. Investment in Spot Bitcoin thus would not be directly related to creation/redemptions, but instead on target portfolio exposure, as allowed by the investment restrictions on spot Bitcoin. Trading for Spot Bitcoin could thus be accomplished in smaller sizes and at unpredictable times, reducing the risk of manipulation in the creation or redemption processes.

The Sponsor believes that these features of the Fund are designed to provide a robust framework for mitigating the risks of market manipulation, thereby protecting investors and maintaining the integrity of the market, and further believes that, given these features of the

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16 See https://www.cmegroup.com/trading/equity-index/exchange-for-physical-efp-transactions.html.

17 In a cash creation/redemption format, the Authorized Participant delivers cash to the fund instead of Spot Bitcoin.

Fund, the CME Market would be considered the regulated market of significant size in relation to the Fund.

Additionally, as further discussed below, the Sponsor believes that the Fund investment strategy is designed such that it would be highly unlikely that a person attempting to manipulate the Fund could be successful by trading on unregulated spot and derivatives markets. Thus, no market other than CME could be considered as of significant size in relation to the Fund.

The Sponsor further believes that the novel approach proposed is in line with the first prong of the Commission's interpretation of the definition of "regulated market of significant size" as to the CME Market and that there is a reasonable likelihood that a person attempting to manipulate the Fund would also have to trade on the CME Market to successfully manipulate the ETP (and, accordingly, the exchange's common ISG membership would aid the Exchange in detecting and deterring potential misconduct).

According to the Sponsor, the Sponsor's approach is designed in such a way that any attempt to manipulate the Fund would require trading on the CME Market, for the following reasons:

1. **Futures-based pricing for Spot Bitcoin:** Because the price determination for Spot Bitcoin holdings in the Fund would be derived from the CME Market futures curve, any attempt to manipulate the price of the Fund would require influencing the futures curve on the CME Market because the spot price (which could be a target for manipulation) does not directly influence the price of the Fund. There is thus a direct and unequivocal lead-lag relationship in which CME Market prices lead both the spot price used by the Fund to determine its NAV and the Fund's market price.

2. **Investment restrictions on Spot Bitcoin:** The dynamic investment restrictions in place for the Fund (as discussed in the section below entitled "Investment Restrictions on Spot Bitcoin") ensure that any significant trading activity aimed at manipulating the Fund would likely spill over into the CME Market because the investment restrictions are designed to prevent the Fund from becoming so large in relation to the unregulated spot market that the cost-benefit tradeoff is favorable for the potential manipulator to execute without influencing the futures market.
3. **Spot Bitcoin operations via EFP on the CME Market:** Because the Fund's Spot Bitcoin operations would take place via CME Market EFP transactions, any attempt to manipulate the Fund's transactions in Spot Bitcoin holdings would need to occur on the CME Market. Accordingly, any potential manipulation of the Fund is closely tied to the CME Market.
4. **Creations and redemptions:** The Fund's use of cash creations and redemptions also reduces the potential for manipulation through the creation and redemption processes. Any significant creation or redemption activity aimed at manipulating the Fund would likely influence the futures market, given that the investment in spot is based on target portfolio exposure and not directly related to creations or redemptions.

Given these factors, the Sponsor believes that the Exchange and CME Market's common membership in the ISG would be an effective tool in assisting the Exchange in detecting and deterring potential misconduct. The agreement would provide the Exchange with access to necessary trading data from the CME Market, which is intrinsically linked to the Fund, allowing for comprehensive oversight and the ability to quickly identify and investigate any suspicious trading activity.

The Approval Order stated that the CME "comprehensively surveils futures market conditions and price movements on a real-time and ongoing basis in order to detect and prevent price distortions, including price distortions caused by manipulative efforts" and that the "CME's surveillance can reasonably be relied upon to capture the effects on the CME bitcoin futures market caused by a person attempting to manipulate the [Fund] by manipulating the price of CME Bitcoin Futures Contracts, whether that attempt is made by directly trading on the CME bitcoin futures market or indirectly by trading outside of the CME bitcoin futures market."[18] The Commission further noted in the Approval Order that, as a result, "when the CME shares its surveillance information with Arca, the information would assist in detecting and deterring fraudulent or manipulative misconduct related to the non-cash assets held by the [Fund]."[19] The Sponsor further believes that, consistent with the Approval Order, CME surveillance can be relied upon to capture any possible manipulation of the CME Bitcoin futures markets, even when the attempt is made indirectly by trading outside the CME in unregulated markets.

The Sponsor also believes that it is unlikely that trading in the Fund would be the predominant influence on prices on the CME Market. The addition of Spot Bitcoin to the Fund's holdings, using EFP transactions on the CME Market, does not significantly alter the influence of the Fund's trading on the CME Market, for the following reasons:

1. **The Fund's limited influence over the market:** As the Commission noted in the Approval Order,[20] the Commission observed no disruption to the CME or evidence that the Fund exerted a dominant influence on CME Bitcoin futures prices. That being the case, the Sponsor believes that it is very unlikely that the Fund's trading,

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18 See Approval Order, 87 FR at 21679.

19 Id.

20 See id. at 21681.

even with the addition of Spot Bitcoin to its holdings, would become the predominant influence on the futures market.

2. **Spot Bitcoin would be purchased using market-neutral EFP transactions:** The Spot Bitcoin in the Fund's portfolio would be converted from futures positions using EFP transactions on the CME Market. The Fund's Spot Bitcoin holdings would thus be directly linked to the futures market and would not introduce a new, independent variable that could significantly influence the futures market. Indeed, because both sides of the trade track the same benchmark, an EFP is market-neutral and, as such, the pricing of an EFP is quoted in terms of the basis between the price of the futures contract and the level of the underlying index.
3. **Investment restrictions on Spot Bitcoin and futures-based pricing:** The dynamic investment restrictions and futures-based pricing for Spot Bitcoin would ensure that the Fund's Spot Bitcoin holdings remain at a level where they are unlikely to significantly impact the futures market and that the futures market continues to influence the price of the Fund's Spot Bitcoin holdings (and not the other way around).

The Sponsor therefore believes that the proposed addition of Spot Bitcoin to the Fund's holdings would not significantly alter the influence of the Fund's trading on the CME Market and that the proposed design of the Fund's investment strategy ensures that its potential impact on the CME Market is the same or smaller than the previous investment strategy (as represented in the Approval Order).

The Sponsor notes that, as of April 2021 and as noted in the Fund's original proposal to list and trade its Shares on the Exchange, the CME Market was already showing a significant increase in size, as per the table below:[21]

CHICAGO MERCANTILE EXCHANGE BITCOIN FUTURES		
	February 26, 2020	April 7, 2021
Trading Volume	$433 million	$4,321 million
Open Interest	$238 million	$2,582 million

The Sponsor notes that growth of the CME Market at that time coincided with similar growth in the Bitcoin spot market. Moreover, the market for Bitcoin futures was and still is rapidly approaching the size of markets for other commodity interests, including interests in metals, agricultural, and petroleum products.

Accordingly, as the CME Market continues to develop and more closely resemble other commodity futures markets, the Sponsor believes that it is reasonable to expect that the relationship between the Bitcoin futures market and Bitcoin spot market will behave similarly to other future/spot market relationships, where the spot market may have no relationship to the futures market (although the current proposal does not depend on such similarity).

In addition, in the time since the Approval Order was issued, there has been significant growth in Bitcoin futures in terms of trading volumes, as reflected in the table below:

CHICAGO MERCANTILE EXCHANGE BITCOIN FUTURES		
	April 6, 2022	June 1, 2023
Trading Volume	$1,692 million	$3,473 million

[21] See Securities Exchange Act Release No. 92573 (August 5, 2021), 86 FR 44062 at 44073 (August 11, 2021) (SR-NYSEArca-2021-53) (Notice of Filing of a Proposed Rule Change To List and Trade Shares of Teucrium Bitcoin Futures Fund Under NYSE Arca Rule 8.200-E).

Open Interest	$2,529 million	$2,800 million

The Sponsor also notes that in the same period during which CME Market open interest remained at roughly at the same level, trading volume and open interest of unregulated Bitcoin futures markets had a significant drawdown:[22]

UNREGULATED FUTURES MARKET			
	April 7, 2021	April 6, 2022	June 1, 2023
Trading Volume	$68,333 million	$37,333 million	$29,693 million
Open Interest	$20,420 million	$13,980 million	$11,630 million

Furthermore, the Sponsor notes that in the same period the trading volume of spot Bitcoin also fell significantly:

SPOT BITCOIN			
	April 7, 2021	April 6, 2022	June 1, 2023
Trading Volume	$698,000 million	$297,000 million	$116,000 million

The Sponsor believes that the data above suggests an increase in market appetite for regulated products (e.g., CME Market Bitcoin futures) vis-a-vis a significant decrease in interest for unregulated products (e.g., unregulated futures and spot Bitcoin).

The Sponsor further believes that an analysis of the data presented above indicates that the CME Market managed to maintain its open interest level despite the price volatility that

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22 Data in this table is sourced from: https://www.theblock.co/data/crypto-markets/futures. Trading volume data for Bitcoin futures in unregulated markets was only available on a monthly frequency. Therefore, the trading volume figures displayed in the table are approximations derived from the daily average trading volumes reported for their respective months.

Bitcoin experienced in 2022, demonstrating its resilience and that it is sufficiently developed such that it is unlikely that trading in the Fund would be the predominant influence on its prices.

The Sponsor further notes that the Commission stated in the Approval Order "that the CME bitcoin futures market has sufficiently developed to support ETPs seeking exposure to bitcoin by holding CME Bitcoin Futures Contracts."[23] The Sponsor believes that the CME Market is also sufficiently developed to support ETPs that seek exposure to Bitcoin by holding a mix of CME Market Bitcoin Futures Contracts and physical Bitcoin through the use of CME Market EFP transactions, because the CME Market is the only market on which the Fund's only proposed non-cash assets would trade. Thus, the CME Market remains the "significant market" in relation to the Fund, as proposed.

Moreover, as detailed above, the Sponsor's proposed investment strategy ensures that no unregulated spot exchange could be considered a "market of relevant size" in relation to the Fund, given that the Fund does not rely on any information or services coming from unregulated markets. All of the Fund's operations, including the purchase and sale of spot Bitcoin and its NAV determination, are conducted through the CME Market. Thus, all transactions are registered and monitored on a regulated exchange, providing an additional layer of security and transparency. Because any attempt to manipulate the Fund would require significant trading on the CME Market, and not on any unregulated spot Bitcoin exchange, there is significantly reduced potential for manipulation and fraud, further protecting investors and maintaining the integrity of the market.

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[23] See Approval Order at 21681.

Futures-Based Spot Price (“FBSP”)

The value of Spot Bitcoin held by the Fund would be determined by the Sponsor and by Hashdex Asset Management Ltd. (the “Digital Asset Adviser”) in good faith based on a methodology that is entirely derived from the settlement prices of Bitcoin Futures Contracts on the CME Market and that considers all available facts and all available information on the valuation date.

The method involves a calculation that is sensitive to both the length of time (the “tenor”) until each Bitcoin Futures Contract is due for settlement and the final settlement price for each contract. The calculation takes into account each contract’s tenor and the tenor squared. This approach is designed to give more importance to contracts that are due for settlement in the near term, considering that the prices of these near-term contracts are more reliable indicators of the current spot price of Bitcoin and are also more heavily traded. The calculation produces a set of weighting factors, with each factor indicating the contribution of the corresponding Bitcoin Futures Contract to the estimated current spot price of Bitcoin. The estimated spot price is the component of the result corresponding to a tenor of zero days. The Sponsor and Digital Asset Advisor do not use data from Bitcoin exchanges or directly from spot Bitcoin trading activity in determining the value of Spot Bitcoin held by the Fund.

As an example, the table below demonstrates how the weights of each hypothetical Bitcoin Futures Contract change over time as the first contract gets closer to maturity.

	First future tenor				
Future	27 days	21 days	15 days	9 days	3 days
1st	130.81%	125.92%	120.39%	113.79%	105.33%
2nd	1.91%	-0.84%	-2.94%	-3.80%	-2.26%
3rd	-8.92%	-7.57%	-5.86%	-3.76%	-1.31%
4th	-9.19%	-7.05%	-4.89%	-2.78%	-0.83%
5th	-7.81%	-5.73%	-3.78%	-2.02%	-0.57%
6th	-6.26%	-4.47%	-2.86%	-1.47%	-0.39%
9th	-2.61%	-1.76%	-1.05%	-0.50%	-0.12%
12th	-0.29%	-0.14%	-0.04%	0.01%	0.01%
18th	2.35%	1.65%	1.04%	0.53%	0.14%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

The Sponsor believes that the accuracy of the proposed pricing methodology can be measured by comparing its pricing results to the real time version of Bitcoin price benchmarks such as CME CF BRR and NQBTCS. FBSP is derived from futures settlement prices, which are usually VWAPs from all contracts traded on Globex between 14:59:00 and 15:00:00 Central Time. Accordingly, for purposes of developing a useful proxy, the Sponsor's analysis uses the arithmetic average of the Benchmark closing prices at 14:59:00 and 15:00:00 CT, which is not sensitive to the fluctuations that occur within this minute. By design, this difference in the price metric introduces an artificial distortion in the comparison, resulting in figures that are less adherent than in reality. Therefore, the figures set forth below represent a conservative estimation of the true adherence between FBSP and the Benchmark, considering that the actual adherence to the Benchmark is higher than these results can indicate.[24]

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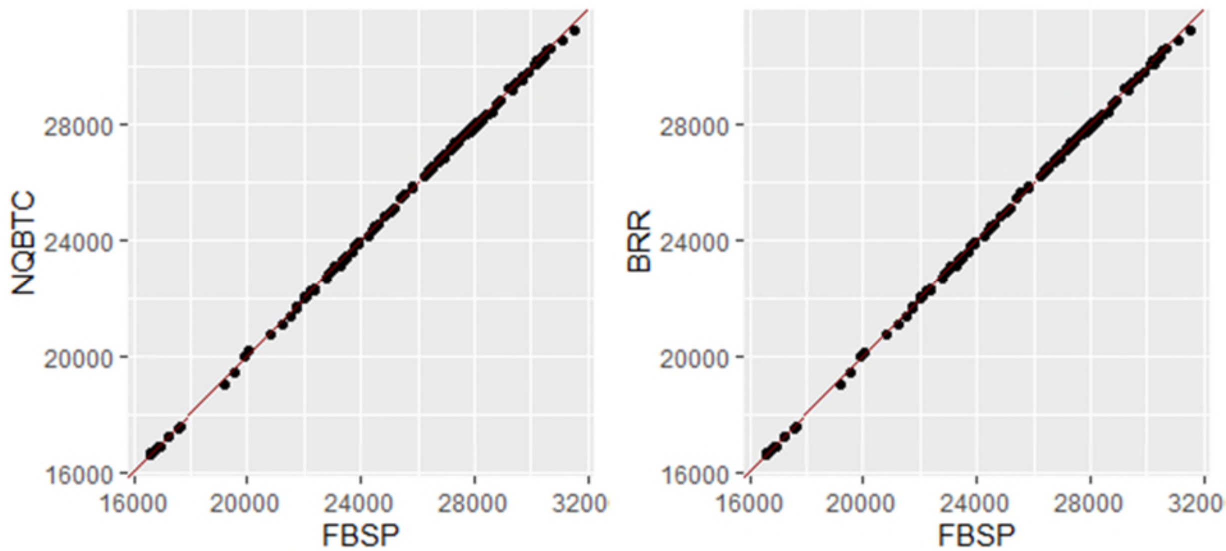
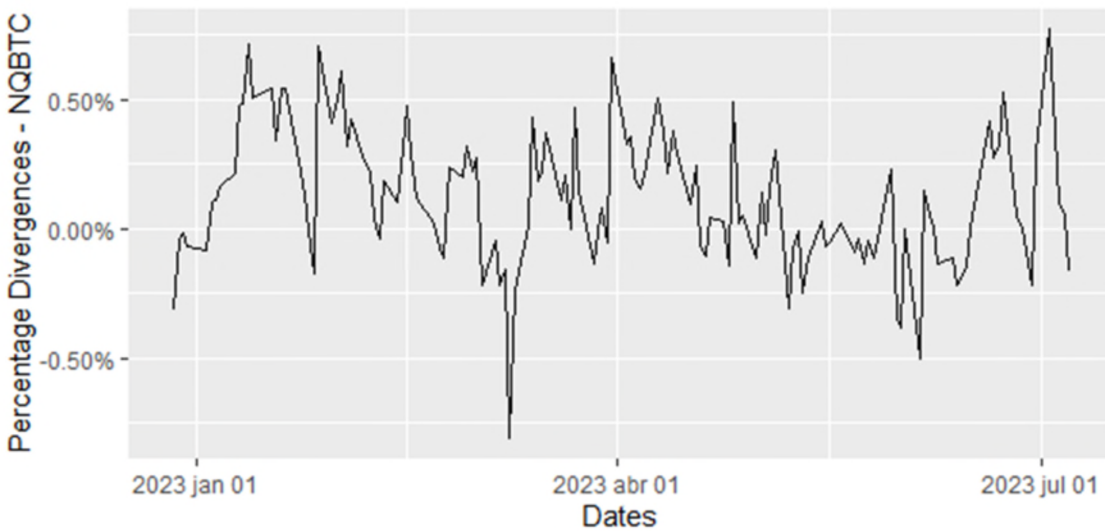
24 The difference in the price metrics introduces an artificial distortion in the comparison. Indeed, a regression analysis shows that the ratio between the maximum and minimum spot prices within the Bitcoin Futures VWAP window is a significant variable that explains the absolute divergences between FBSP and the spot prices. The higher the ratio between the maximum and minimum spot prices, the higher expected absolute divergence between FBSP and the spot prices. The correlation of these two metrics in the case of the real time version of NQBTCS is approximately 30%, suggesting that the actual adherence between FBSP and the spot benchmarks is even higher than the figures discussed herein indicate.

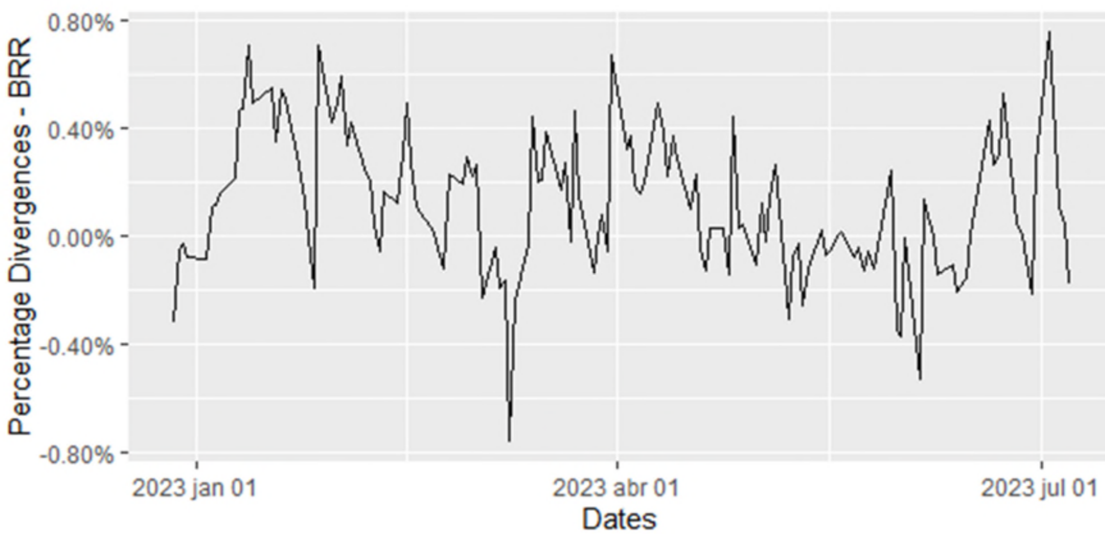
Using data available on Bloomberg on July 10, 2023, the Sponsor compared FBSP to NQBTCS and CME CF BRR from December 27, 2022 to July 7, 2023 and determined that FBSP behaves very similarly to both indexes. The following charts show a direct comparison between those two benchmark values and FBSP:



In the above charts, each black point indicates one day, and their proximity to the red line shows how similar FBSP is to each of NQBTCS and CME CF BRR. The correlations between FBSP and each of NQBTCS and CME CF BRR exceed 99.9%, and the mean absolute percentage divergences are 21 basis points ("bps") and 22 bps, respectively, while the median absolute percentage divergences are 18 bps and 17 bps, respectively.

The charts below provide another visualization of the results of this comparison, as time series of the percentage divergences:





These charts show that there are no clusters of abnormal divergences. In both cases, more than 90% of the days exhibit percentage divergences between -50 bps and +50 bps. The highest percentage divergence in absolute terms, with 81 bps for the NQBTCS and 76 bps for the CME CF BRR, was observed on March 9, 2023, and coincided with significant volatility in the Bitcoin markets; on that day, NQBTCS dropped 5.34% from $22,003.92 to $20,827.67 and the FBSP, which settles one hour later, dropped by 9.3%, from $22,055.85 to $20,012.10. The Sponsor notes that, even on the day with the highest percentage divergence between FBSP and the other two benchmarks, that percentage divergence was insignificant in comparison to the intraday volatility of Bitcoin itself and could be attributable to the different market structures of the regulated CME Market and the unregulated spot markets.

The Sponsor believes that this data strongly suggests that FBSP is a suitable choice for the NAV calculation, both for the settlement and the real time proxy, and that the following additional considerations further support the soundness of the FBSP methodology:

- Bitcoin is a highly volatile asset traded in multiple venues across the world, and divergences of the magnitude found in this analysis are not unusual across different price sources or exchanges.
- Although it is not a consensus, academic research[25] has found evidence that CME Bitcoin futures lead spot in the price discovery process, so the divergences presented here are impacted by the possibility that spot prices are delayed.
- As noted above, the mean absolute percentage divergences are 21 bps and 22 bps respectively, the median absolute percentage divergences are 18 bps and 17 bps, and March 9, 2023 was the day with the highest percentage divergence in absolute terms, with 81 bps for the NQBTCS and -76 bps for CME CF BRR. The Sponsor believes that these divergences between FBSP and the underlying benchmarks are in a reasonable range and support that FBSP closely tracks NQBTCS and CME CF BRR.

Finally, the Sponsor notes that, even considering that FBSP could create some level of uncertainty due to the potential divergences between the FBSP and the spot prices observed in

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[25] See, e.g., Wu, Jinghong; Xu, Ke. *Fractional cointegration in bitcoin spot and futures markets*. The Journal of Futures Markets. Vol. 41, Is. 9 (September 2021), available at: https://onlinelibrary.wiley.com/doi/epdf/10.1002/fut.22216#pane-pcw-references; Chang, Alexander and Herrmann, William and Cai, William. *Efficient Price Discovery in the Bitcoin Markets* (October 14, 2020), available at SSRN: https://ssrn.com/abstract=3733924; Kapar, Burcu; Olmo, Jose. *An analysis of price discovery between Bitcoin futures and spot markets*. Economics Letters, Vol. 174 (January 2019), available at: https://www.sciencedirect.com/science/article/abs/pii/S0165176518304440.

unregulated markets, the authorized participants ("APs") are able to hedge potential exposure by buying the basket of futures that represents FBSP and selling it during the futures settlement window. In doing so, APs can emulate a situation where they know ex ante the value of the creation basket. The opposite trade can have the same effect for the case of redemptions. Thus, the APs providing liquidity on the secondary market during the day will always be in a position to hedge their exposure using exclusively the CME Market, which will make them more likely to provide liquidity to the Fund thus making its market price converge to its NAV.

Preventing Manipulation

While the Commission has raised valid concerns about the potential influence of unregulated Bitcoin markets on the daily settlement price on CME Market, the Sponsor believes that the proposed methodology described above provides a significant and sufficient degree of insulation from such influences, for the following reasons:

1. **Regulated market influence:** The daily settlement price of Bitcoin Futures Contracts on the CME Market, which is the basis for the NAV calculation of both futures contracts and physical holdings of the Fund, is primarily influenced by trading activity within the regulated futures market itself. This market is subject to stringent oversight and surveillance mechanisms designed to detect and deter manipulative and fraudulent practices, thus significantly limiting the possible influence of unregulated Bitcoin markets on the daily settlement price.

2. **High liquidity and volume:** The CME Market is characterized by high liquidity and trading volume, such that any attempt to influence the daily settlement price through trading activity in other, unregulated Bitcoin markets would require a significant amount of capital and coordination. The Sponsor thus believes that any such

manipulation attempts would be highly detectable by the CME Market's market surveillance.

3. **Complex pricing methodology:** The NAV calculation methodology is comprehensive and accounts for both the tenor and final settlement price of each futures contract. In addition, the FBSP used in the NAV calculation methodology incorporates all maturities of Bitcoin Futures Contracts, which exhibit a robust price relationship among themselves. As a result, attempting to manipulate these prices in a coordinated manner to generate a substantial impact on NAV would be very challenging for potential manipulators and likely financially unfeasible. The Sponsor thus believes that the complexity of the methodology provides an additional layer of protection against manipulation, as it would be extremely difficult for a manipulator to influence all these factors in a coordinated way to impact the Fund's NAV without leaving a detectable trail that would alert market surveillance.
4. **Focus on near-term contracts:** The Fund's methodology gives more importance to futures contracts that are due for settlement in the near term because such contracts are more heavily traded, and their prices are more reliable indicators of the current spot price of Bitcoin. The Sponsor believes that the methodology's focus on near-term contracts further reduces the potential for manipulation, as these contracts are less susceptible to manipulation due to their higher trading volumes and liquidity.

The Sponsor also believes that it is highly unlikely that a person attempting to manipulate the NAV of the Fund could do so successfully by trading on unregulated spot and derivatives markets. Because of direct arbitrage, it is reasonable to assume that the ETP's market price (in the secondary market) would be highly adherent to the Fund's Intraday Net Asset Value, since

APs can always create and redeem shares of the Fund hedging with a basket of Bitcoin Futures Contracts and the value of the creation basket is determined based on the NAV of the Fund, which is calculated using the FBSP prices that is based on such basket of Bitcoin Futures Contracts. Consequently, the likelihood of a potential manipulator of the ETP to succeed by exclusively trading in unregulated Bitcoin markets would depend on how much the prices in these markets have an impact over the CME Bitcoin Futures Contracts prices. The likelihood that a potential manipulator would undertake such an effort is also decreased when considering the financial burden of manipulating the unregulated markets and the overall expected profitability of any such manipulation.

To further assess such likelihood, the Sponsor carried out the following analysis to investigate the relationship between prices from relevant unregulated Bitcoin markets and the prices of the CME Bitcoin Futures Contracts, to assess the impact that a manipulation on those markets would have on CME. The Sponsor collected one-minute bars data between January 18, 2023 and July 26, 2023[26] of prices for the nearest CME Bitcoin Futures Contract ("CME Futures") and the following alternative Bitcoin prices ("ABP"): spot Bitcoin (in USD) on each of NQBTCS's Core Exchanges,[27] spot Bitcoin (in USDT), and BTCUSDT USDs-Margined Perpetuals on Binance. For each day and each ABP, a simple regression model was estimated with one-minute CME Futures log-returns as the dependent variable, and two independent variables: (1) the log CME Futures closing price of the previous minute (as a control variable) and (2) the difference between the ABP log return and the CME Futures log return in the previous minute (as the variable of interest).

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26 This date range represents days with intraday data available on Bloomberg as of July 27, 2023. Days with less than 40 observations for a given ABP were excluded from the analysis of such ABP.

27 The core exchanges as of December 31, 2022 were BitStamp, Coinbase, Gemini, itBit, and Kraken.

The estimated coefficients associated with the variable of interest are a measure of the expected response from the CME Futures (as measured by its returns) to a divergence between its own return information and the one from ABP in the near past (one-minute lagged returns). Such divergences are expected to occur in cases of manipulation. A higher coefficient (closer to one) would indicate that CME Futures are more sensitive to and strongly influenced by the divergence, while a lower coefficient (closer to zero) would suggest that CME Futures are less responsive and not significantly influenced by the information coming from ABP. The Sponsor believes that these coefficients can be considered a conservative estimation of the real impact that manipulation in an ABP would have over the CME Futures price because the estimations are calculated under normal circumstances rather than under a manipulative attack, in which some other indicators, such as abnormal volume and volatility, would warn market participants and undermine their perception of the attacked ABP as a reliable price reference.

The results of the Sponsor's analysis are summarized in the table below:[28]

	Estimated Parameters				Market Depth	
ABP	**Average**	**1st Decile**	**Median**	**9th Decile**	**+2% Depth**	**-2% Depth**
Coinbase (spot USD)	0.39	0.21	0.41	0.53	$10,317,109	$17,320,315
Binance (spot USDT)	0.36	0.15	0.38	0.52	$17,523,531	$42,136,404
Kraken (spot USD)	0.22	0.03	0.23	0.40	$28,189,731	$30,375,259
Bitstamp (spot USD)	0.17	0.03	0.18	0.33	$5,083,934	$4,831,827
Gemini (spot USD)	0.15	-0.01	0.16	0.30		
ItBit (spot USD)	0.08	-0.07	0.07	0.23		
Binance (perpetual USDT)	0.01	-0.07	0.00	0.09		

The Sponsor's analysis suggests that the influence of ABP over the CME Futures prices is relatively low. For instance, if a would-be manipulator chose to attack Coinbase, which is an ABP with higher coefficients and thus higher potential to impact CME futures, the average coefficient of 0.39 means that in order to manipulate CME Futures prices by 1%, the would-be

28 The market depth information was obtained from CoinMarketCap on July 19, 2023. The ABPs with blank cells in this table were not included in the July 19, 2023 snapshot.

manipulator would have to distort Coinbase prices by more than 2.5% (1% divided by 0.39) on average. To be successful with 90% confidence (1st Decile) this manipulator would have to distort Coinbase prices by more than 4.7% (1% divided by 0.21). The Sponsor believes that its analysis supports that, even considering these conservative estimations, indirect manipulation would be extremely inefficient.

The market depth columns in the above table indicate that substantial financial resources, running into tens of millions of dollars, are present on both sides of the order book for the most influential ABPs (even without including hidden orders, bots, and arbitrageurs that effectively enhance liquidity). The considerable financial commitment that would be required makes the manipulation of these prices an expensive endeavor.

The Sponsor believes that its analysis demonstrates that the low efficiency of attempts to manipulate ABPs, coupled with the significant cost involved in influencing impactful ABPs, makes potential manipulation of spot Bitcoin markets an unattractive proposition, and that it is therefore highly unlikely that a potential manipulator of the ETP could succeed by exclusively trading in unregulated Bitcoin markets. The combination of the high costs and the inefficiencies associated with manipulation makes it a daunting and unprofitable venture.

In summary, while the Sponsor acknowledges the potential for influence from trades settled in unregulated Bitcoin markets, the Sponsor believes that the NAV calculation methodology, coupled with the inherent characteristics of the CME, provides a significant degree of protection against such influence being deliberately used to manipulate the Fund’s market price or NAV without it being subject to detection by CME market surveillance.

Investment Strategy

The Sponsor believes that the investment strategy of the Fund is designed to mitigate the risk of manipulation by diversifying its holdings and is responsive to the Commission's concerns with respect to an ETP that holds spot Bitcoin. Instead of holding 100% spot Bitcoin, which could make it more susceptible to price manipulation in the spot market, the Fund will hold a mix of Spot Bitcoin, Bitcoin Futures Contracts, and cash. This diversified portfolio is subject to investment restrictions, which further reduces the potential for manipulation, as explained below:

1. **Diversification:** By holding a combination of Spot Bitcoin, Bitcoin Futures Contracts, and cash, the Fund reduces its exposure to any single asset class. This diversification also makes it more difficult for a would-be manipulator to influence the NAV of the Fund by manipulating the price of spot Bitcoin alone; for instance, even if a manipulator were able to influence the spot price of Bitcoin, their actions would only affect a portion of the Fund's portfolio, thereby limiting the overall impact of such manipulation on the Fund's NAV.
2. **Investment restrictions:** The Fund's holdings of Spot Bitcoin would be subject to investment restrictions, which are further discussed below. These restrictions cap the amount of Spot Bitcoin that the Fund can hold, further reducing the potential for manipulation by, for example, preventing the Fund from becoming so large in relation to the spot market that it could be manipulated without influencing the futures market. The Sponsor believes that these investment restrictions ensure that any significant trading activity aimed at manipulating the Fund would likely spill over into the CME Market, a regulated market with robust surveillance mechanisms in place to detect

and deter manipulation, and with which the Exchange could receive information pursuant to common ISG membership.

3. **Reduced dependence on spot market:** By holding Bitcoin Futures Contracts and cash in addition to Spot Bitcoin, the Fund reduces its dependence on the spot market, thereby mitigating concerns about potential manipulation in unregulated Bitcoin spot exchanges. Instead, the Fund will rely on Bitcoin Futures Contracts and Bitcoin futures EFPs that are traded on the CME Market, a regulated exchange, which provides a higher level of transparency and oversight compared to unregulated spot exchanges.
4. **Dynamic adjustment:** The mix of Spot Bitcoin, Bitcoin Futures Contracts, and cash in the Fund's portfolio can be dynamically adjusted based on market conditions and regulatory developments. This flexibility allows the Fund to respond quickly to any signs of potential manipulation or other market abuses, further enhancing its resilience against manipulation.

In summary, by diversifying its holdings and imposing investment restrictions, the Fund reduces its vulnerability to manipulation in any single market, thereby protecting investors and maintaining the integrity of the Fund.

Investment Restrictions on Spot Bitcoin

According to the Sponsor, the Fund will be subject to investment restrictions on Spot Bitcoin (the "Investment Restrictions") that are specific constraints on its exposure to Bitcoin, particularly with respect to spot holdings. These investment restrictions are designed to mitigate the risk of manipulation of the Fund's Shares by insulating the Fund from events impacting the Bitcoin spot market, are not fixed, and may be adjusted based on factors such as the

Commission's recognition of the CME as a regulated market of significant size related to spot Bitcoin, the NAV of the Fund, and the prevailing trading conditions on the core exchanges of the Benchmark.

The Sponsor believes that the Investment Restrictions are intended to ensure that the Fund's notional exposure to Bitcoin will be restricted to a set proportion and are currently set at 100%, of the 30-day Average Daily Traded Volume ("ADTV") on the core exchanges of the NQBTCS that are subject to regulatory and reporting rules in the United States, including companies that are publicly traded in the United States.[29] The Sponsor believes that the Investment Restrictions serve two main purposes:

1. They deter potential manipulative actions directed towards the Fund's Shares by making the cost-benefit tradeoff highly unfavorable for the manipulator. To manipulate the Fund's price using an unregulated spot market, a manipulator would need to transact a volume that surpasses the Fund's total exposure in spot Bitcoin, making the potential costs of manipulation outweigh the benefits.
2. They ensure that the Fund's trading activities do not become the primary driving force behind price variations in the Bitcoin spot market. By restricting the Fund's notional exposure to a proportion of the ADTV, this constraint ensures that the Fund's trading activities are always a fraction of the overall market activity, thereby reducing the potential for the Fund to unduly influence market prices.

In summary, the Sponsor believes that the Investment Restrictions are a key tool in the Fund's strategy to prevent manipulation. By limiting the Fund's exposure to the spot market and

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[29] The Sponsor believes that the methodology could significantly reduce the potential influence of malicious agents targeting the Fund by only accepting data from sources subject to regulatory regimes that obligate them to ensure the integrity of data reported.

ensuring that the Fund's trading activities do not become the predominant influence on market prices, these restrictions provide a robust defense against potential manipulation attempts.

Creations and Redemptions

According to the Sponsor (and as mentioned above), the Fund uses cash creations and redemptions. An AP delivers cash to the Fund instead of Spot Bitcoin in the creation process, and an AP receives cash instead of Spot Bitcoin in the redemption process. The cash delivered or received during the creation or redemption process is then used by the Sponsor to purchase or sell Bitcoin Futures Contracts with an aggregate market value that approximates the amount of cash received or paid upon the creation or redemption. On a daily basis, the Sponsor will analyze the current portfolio allocation of the Fund between Spot Bitcoin and Bitcoin Futures Contracts and, based on the Investment Restrictions and target portfolio exposure, may decide to engage in an EFP transaction on CME to buy or sell Spot Bitcoin for the equivalent position in Bitcoin Futures Contracts.

The Sponsor believes that this method protects against manipulation in the creation and redemption process and of the Fund's market price from trading in unregulated spot markets. Investment in spot Bitcoin will not be directly related to creation or redemption of Fund Shares, but instead on target portfolio exposure, such that trades can be performed in smaller sizes and at unpredictable times, reducing the risk of creation or redemption manipulation.

The Sponsor believes that the use of cash creations and redemptions in the Fund serves as a deterrent to manipulation in several ways:

1. **Decoupling from spot market:** By using cash instead of Spot Bitcoin for creations and redemptions, the Fund's operations are decoupled from the unregulated spot market. The creation and redemption process does not directly influence the

unregulated spot market or vice versa, thereby reducing the potential for manipulation through this process.

2. **Unpredictable trading times:** The Fund's investment in Spot Bitcoin is not directly related to creations or redemptions, but instead on target portfolio exposure. As a result, trading can be done in smaller sizes and at unpredictable times, making it harder for potential manipulators to time their actions.

3. **Reduced impact of large trades:** By effecting creations and redemptions in cash, large trades that could potentially influence the unregulated spot market are mitigated. Instead, these trades are absorbed in the CME Market, which is sufficiently liquid and can reasonably be relied upon to assist in detecting and deterring fraudulent or manipulative misconduct.

4. **Reduced influence of Bitcoin sourced from unregulated spot exchanges:** In-kind creation may create a direct relationship between the Fund's market price and prices on unregulated exchanges such as Binance by arbitrage, because an AP could buy or sell Bitcoin from Binance and receive or deliver Bitcoin from the Fund through the creation or redemption process. With creations and redemptions in cash, however, that arbitrage cannot be executed without going through pricing and trading on the CME Market.

The Sponsor believes that the Fund's creation and redemption process is designed to minimize the potential for market manipulation, thereby protecting investors and maintaining the integrity of the markets.

<u>Exchange for Physical Transactions</u>

EFP transactions, also known as Exchange for Related Position or EFRP transactions,[30] are a type of private agreement between two parties to trade a futures position for the underlying asset. In the context of the Fund, these transactions will be used to purchase and sell Spot Bitcoin by delivering or receiving the equivalent futures position.

In an EFP transaction, two parties exchange equivalent but offsetting positions in a Bitcoin Futures Contract and the underlying physical Bitcoin. One party is the buyer of futures and the seller of the physical Bitcoin, and the other party takes the opposite position (seller of futures and buyer of physical). While the EFP is a privately-negotiated transaction between the two parties to the trade, the consummated transaction must be reported to CME Market and its conditions and prices are subject to CME Market's market regulation oversight.

Because both sides of the trade track the same benchmark (Bitcoin), an EFP is market-neutral. As such, the pricing of an EFP is quoted in terms of the basis between the price of the futures contract and the level of the underlying Bitcoin. Because the Fund proposes to use EFP transaction to purchase and sell Spot Bitcoin, the only non-cash assets held by the Fund (Bitcoin Futures Contracts and Bitcoin) are traded on CME Market. Because the Exchange and the CME Market are both ISG members, information shared by the CME Market with the Exchange can be used to assist in detecting and deterring fraudulent or manipulative misconduct related to those assets.

In the proposed strategy for the operation of the Fund, every time the Fund is required to purchase or sell Bitcoin, the Sponsor will perform a request for quotation ("RFQ") auction with multiple market makers using the FBSP as the reference price for spot and the settlement price as

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30 See https://www.cmegroup.com/clearing/operations-and-deliveries/accepted-trade-types/efp-efr-eoo-trades.html.

the reference for the futures contracts. Market makers present their quotes in terms of basis points ("bps"), where 1bp = 0.01% over the FBSP. The Sponsor will then confirm the trade with the best offer and report the EFP transaction to the CME Market.

The Sponsor believes that EFP transactions are a powerful tool in preventing market manipulation for several reasons:

1. **Regulated environment:** EFP transactions occur on the CME Market, which is a regulated exchange with processes in place to prevent market manipulation, including monitoring transaction prices and investigating potential manipulations, as outlined in CME Rule 538.[31] All transactions are monitored and subject to rules and regulations designed to prevent market manipulation. Moreover, all parties to an EFP transaction are required to maintain all records relevant to the transaction pursuant to CFTC Regulation 1.35, thus providing the ability for CME and the CFTC to conduct surveillance inquiries and investigations in an efficient and effective manner for the protection of customers and ensuring market integrity. Furthermore, as an additional protection measure, to enforce the highest standard on the sourcing of such underlying physical Bitcoin, the Sponsor represents that it will only participate in EFP transactions with broker-dealers that are FINRA regulated or part of corporate groups that are, which would provide another layer of regulatory oversight in how Bitcoin exposures are sourced, as those counterparties already have an ongoing commercial relationship with the Sponsor and are active participants in trading Bitcoin regulated products worldwide.

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[31] See https://www.cmegroup.com/rulebook/files/cme-group-Rule-538.pdf.

2. **Surveillance-sharing agreement:** NYSE Arca and the CME Market are both members of the ISG, which allows for the sharing of information and cooperation in investigations, which can help detect and deter market manipulation.
3. **Transparency:** EFP transactions must be reported to the CME Market, which is a regulated exchange, providing transparency and making it more difficult for manipulative practices to go unnoticed. Parties to EFP transactions must maintain all records relevant to the CME futures contract and the related position transaction, pursuant to CFTC Regulation 1.35, adding another layer of regulatory scrutiny and transparency. In addition, EFP transactions volumes are required to be reported with the daily large trader positions by each clearing member, omnibus account, and foreign broker.
4. **Market-neutrality:** Because EFP transactions involve exchanging equivalent but offsetting positions, they are market-neutral. As a result, EFP transactions do not create imbalances in the market that could be exploited for manipulative purposes.
5. **Unpredictability:** EFP transactions are privately negotiated between the fund and other parties, making them less predictable and therefore more difficult to manipulate.

The Sponsor believes that, by using EFP transactions to purchase and sell spot Bitcoin, the Fund would ensure that its operations are conducted in a regulated, transparent, and market-neutral manner, significantly reducing the dependency on and the risk of manipulation from unregulated spot exchanges.

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In connection with this proposed rule change, the Sponsor will:

(1) issue a press release informing the public of the date on which the Fund will first

apply its proposed updated Benchmark and investment strategy;

(2) file the applicable press release with the Commission by means of Form 8-K, which will be available on the Fund's website; and

(3) file an amendment to its registration statement relating to the proposed change.[32]

2. Statutory Basis

The basis under the Act for this proposed rule change is the requirement under Section 6(b)(5)[33] that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to, and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

The Exchange believes the proposed rule change is designed to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest because it would reflect the change in the Fund's name, as set forth in the Registration Statement. Specifically, the proposed rule change would reflect a change in the Fund's name from the Hashdex Bitcoin Futures ETF to the Hashdex Bitcoin ETF. The proposed change is also designed to remove impediments to and perfect the mechanism of a free and open market, promote just and equitable principles of trade, and protect investors and the public interest by ensuring that the Fund's name is consistent with the Registration Statement and reflects the Fund's proposed updated investment strategy.

The Exchange believes that the proposed rule change is designed to remove impediments

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[32] The Sponsor further represents that it will manage the Fund as described in the Approval Order and will not implement the changes described herein until its Registration Statement and this proposed rule change are effective and operative.

[33] 15 U.S.C. 78f(b)(5).

to and perfect the mechanism of a free and open market and, in general to protect investors and the public interest because the NQBTCS would be an appropriate replacement for the closing settlement prices of BTC Contracts listed on the CME in calculating the Benchmark. The Exchange believes that NQBTCS would provide reliable pricing on which to base the Benchmark because it is administered by an independent index administrator, it is intended to provide an institutional-grade reference price for Bitcoin, and the pricing methodology underlying the NQBTCS is reasonably designed to be resistant to potential price manipulation. Specifically, NQBTCS is calculated via a rigorous and publicly available methodology that incorporates trade data captured from cryptocurrency exchanges that meet eligibility criteria of the NCI and that is designed to adjust for variances in price, volume and volatility across a wide range of sources, as well as to protect against the impact of anomalous trading activity that could impact the NQBTCS price. Accordingly, the proposed use of NQBTCS would remove impediments to and perfect the mechanism of a free and open market and, in general to protect investors and the public interest by allowing the Fund to calculate a Benchmark that would track Bitcoin pricing more broadly, consistent with the proposed change to the Fund’s investment strategy as discussed above.

The Exchange believes the proposed rule change is designed to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest because it would amend representations relating to the Fund’s updated investment strategy, through which the Fund would seek to achieve its investment objectives by investing in both Bitcoin futures and Spot Bitcoin, in addition to being able to hold part of its net assets in cash. The Exchange believes that the Fund’s strategy of holding a mix of Spot Bitcoin, Bitcoin futures and cash would remove impediments to and perfect the mechanism of a free market and protect investors and the public interest because it would allow the Fund to limit its exposure to any single asset class, while offering investors exposure to Spot Bitcoin without relying on unregulated products or markets. The Exchange also believes that the Sponsor has designed the Fund to includes features intended to provide a robust framework for mitigating the risks of market manipulation, such as its proposed investment strategy, its use of futures-based pricing for Spot Bitcoin, the proposed Investment Restrictions, the use of EFP transactions on the CME Market for Spot Bitcoin, and the use of cash creations and redemptions, which would remove impediments to and perfect the mechanism of a free and open market and promote the protection of investors and the public interest. The Exchange also believes that, given these features of the Fund, the CME Market could be considered the regulated market of significant size in relation to the Fund and that there is a reasonable likelihood that a person attempting to manipulate the Fund would also have to trade on the CME Market to do so, such that information shared pursuant to NYSE Arca and the CME Market's common ISG membership would aid the Exchange in detecting and deterring potential misconduct.

As noted above, prior to implementing the proposed change, the Sponsor will (1) issue a press release informing the public of the date the Fund will first employ the updated Benchmark and investment strategy; (2) file the applicable press release with the Commission by means of Form 8-K, which will be available on the Fund's website; and (3) file an amendment to the Fund's registration statement relating to the proposed change. The Exchange believes that such press release and registration statement amendment would protect investors and the public interest by providing notification to investors of the proposed change prior to its implementation. The Exchange also believes that the proposed change is designed to protect investors and the public interest because, except for the changes noted above, all other representations made in the

Approval Order remain unchanged, and the Fund will continue to comply with all initial and continued listing requirements.

Finally, the Exchange believes that the proposed rule change is designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the continued listing and trading of Trust Issued Receipts based on Bitcoin that will enhance competition among market participants, to the benefit of investors and the marketplace. As noted above, the Exchange has in place surveillance procedures that are adequate to properly monitor trading in the Shares in all trading sessions and to deter and detect violations of Exchange rules and applicable federal securities laws.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purpose of the Act. The Exchange notes that the proposed rule change will facilitate the continued listing and trading of the Fund and will enhance competition among market participants, to the benefit of investors and the marketplace.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) by order approve or disapprove the proposed rule change, or

(B) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's internet comment form (https://www.sec.gov/rules/sro.shtml); or
- Send an email to rule-comments@sec.gov. Please include file number SR-NYSEARCA-2023-58 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to file number SR-NYSEARCA-2023-58. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (https://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F

Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-NYSEARCA-2023-58 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[34]

Sherry R. Haywood,

Assistant Secretary.

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[34] 17 CFR 200.30-3(a)(12).