October 31, 2018

Secretary Brent J. Fields
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: File No. SR-CboeBZX-2018-040

Dear Mr. Fields:

SolidX Management LLC (the “Sponsor”) appreciates the opportunity to respond to the Securities and Exchange Commission’s (the “Commission”) request for comments pursuant to Release No. 34-84231 (the “Order”) regarding the proposed rule change by Cboe BZX Exchange, Inc. (the “Exchange” or “Cboe BZX”) that would permit the listing and trading of shares of the VanEck SolidX Bitcoin Trust (the “Trust”) on the Exchange pursuant to BZX Rule 14.11(e)(4).

The Trust was conceived of by the Sponsor as a means of providing a simple and cost-effective way for investors to gain investment exposure to the performance of the U.S. dollar price of bitcoin. The Sponsor has invested substantial effort and resources into the design, development and structure of the Trust, including having secured and bound significant insurance coverage for the bitcoin that will be held by the Trust, and in doing so has carefully considered the questions and potential concerns raised in the Order, specifically as those questions and potential concerns effect Section 6(b)(5) of the Securities Exchange Act of 1934 (the “Exchange Act”). The Sponsor welcomes the opportunity to have addressed such matters in this submission and to provide the Commission with information to support approval of the proposed rule change.

The Exchange Act requires an exchange’s rules to be 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 Sponsor believes that, based on the information presented in the Trust’s Registration Statement, this submission and the various other submissions made part of the record in connection with the proposed rule change, it is clear that approving the proposed rule change would be consistent with the Section 6(b)(5) standards. The Sponsor respectfully submits, however, that in making its determination, the Commission should also consider the numerous ways in which disapproving the proposed rule change would be inconsistent with Section 6(b)(5), and contrary to investor protection and the public interest.
In passing the Exchange Act, Congress explicitly recognized the important and pervasive role of the securities markets to the public.\(^1\) And many investors today consider investments in non-traditional asset classes to be an essential element in portfolio diversification.\(^2\) The creation of new types of securities products that provide access to asset classes other than stocks, bonds and traditional commodities is critical for such investors. For many people, products such as physically backed exchange-traded trusts, which can be held in traditional brokerage accounts just like stocks and bonds, have become an important investment option. In particular, the Sponsor believes the following features of the Trust will be highly valued by investors seeking exposure to bitcoin:

- **Simple to hold:** Shares of the Trust will be held in a brokerage account, just like any other securities.
- **Insurance protection:** The Trust’s bitcoin will be insured against loss or theft of bitcoin.
- **Limited counterparty risk:** Investors in the Trust will not have to source bitcoin individually, including from unregulated entities (or be duped into investing in fraudulent schemes).
- **Liquidity:** Shares of the Trust will be listed and trade on Cboe BZX, and can be bought or sold at any time during the trading day.
- **Overtly not for retail:** The initial share price for one share (consisting of 25 bitcoin) will be approximately $200,000, a level designed to ensure that only institutional and “non-retail” investors are able to purchase shares.
- **Lack of tracking error:** Both the net asset value and market price per share should both closely track the U.S. dollar price of bitcoin.
- **Transparency:** The Trust will publicly report its bitcoin holdings every day.
- **Publicly available information:** The Trust will provide ongoing disclosure to investors required under the Securities Act and the Exchange Act.
- **Tax treatment:** As a grantor trust, the Trust’s tax treatment will be straightforward and follow well-known rules and principles.
- **Uncorrelated and diversification:** Bitcoin is uncorrelated with most other assets, which will help investors diversify their portfolios.

\(^1\) See Exchange Act Section 2 (“transactions in securities as commonly conducted upon securities exchanges and over-the-counter markets are affected with a national public interest;” securities transactions “are carried on in large volume by the public generally” and “constitute an important part of the current of interstate commerce”).

The Sponsor believes that it would be consistent with the protection of investors and the public interest, and thus in line with the principles of Section 6(b)(5), for the Commission to approve the proposed rule change. As we explain below, the Trust is functionally almost identical to existing physically backed exchange-traded products, which have become an important component of the market. The Sponsor submits that it is in the public interest to permit the development of the Trust, which will enable a new and compelling investment option to investors. The Trust offers convenience and safety and other benefits, as described herein. The Sponsor represents that, in its opinion and based on its experience in the bitcoin community and markets: (i) the bitcoin markets are sufficiently liquid for bitcoin to serve as the underlying asset for the Trust, (ii) Authorized Participants and market makers will be able to make efficient and liquid markets, (iii) listing of the Trust’s shares would not lead to manipulative acts or practices, and (iv) the rules of the Exchange are, among other things, designed to prevent fraudulent and manipulative acts and practices and to promote just and equitable principles of trade, and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Accordingly, the Sponsor believes that the Commission should approve the proposed rule change.

In 2004, the Commission permitted the first U.S. listing of a physical commodity trust, SPDR Gold Trust. Since then it has also permitted the listing of numerous other physical commodity trusts, including those that permit cash creations and redemptions, as consistent with the requirements under BZX Rule 14.11(e)(4). Currently, there exists one product in the U.S. that trades on the OTC Markets, one product listed on European exchanges that invest in bitcoin, and a full-fledged significant market for bitcoin futures that trade Cboe Futures Exchange and CME. The Sponsor appreciates the paramount importance of the Commission’s mission to protect investors and maintain fair, orderly, and efficient securities markets. The Commission has also recognized, however, the importance of helping U.S. exchanges remain competitive in the international marketplace. The Sponsor respectfully submits that approving the proposed rule change and allowing the listing of the Trust’s shares would further advance this goal by demonstrating to future sponsors of new products that the Commission remains committed to fostering innovation in the U.S. securities markets.

Furthermore, unlike most financial assets within the modern financial system, investors seeking to acquire bitcoin require specialized knowledge to source and secure bitcoin. Such potential bitcoin investors without sufficient technological knowledge may encounter both counterparty and custodial issues that will effectively lock them out of accessing the bitcoin market, or, worse, cause them to deal with unscrupulous individuals seeking to take advantage of unsuspecting investors. Therefore, although there is nothing preventing investors from participating directly in the bitcoin market, as some in fact do, the Sponsor believes, based on the current state of the bitcoin market and its participants, many mostly institutional investors will continue to be frozen out of these markets because of the technological, counterparty and custodial issues associated with sourcing and holding bitcoin. As a full-fledged exchange listed product in the U.S., the

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Trust will provide investors with an opportunity to invest in bitcoin without being exposed directly to the risks associated with sourcing and holding bitcoin outside the regulated traditional financial markets. The Trust, therefore, is consistent with the SEC’s primary mission of investor protection and public interest.

As an exchange-traded fund, investors in the Trust will be able to purchase and sell shares throughout the trading day using traditional brokerage accounts without the need to create separate accounts with bitcoin exchanges or maintain bitcoin wallets in order to gain exposure to the value proposition of bitcoin. Accordingly, the Sponsor believes that the Trust will effectively and securely provide access to bitcoin to investors that may otherwise be unable or unwilling to invest because of the specialized knowledge required to purchase and hold bitcoin, or, worse, end up making an investment in an unregulated product sold by dishonest individuals perpetrating investor schemes. Approval of the proposed rule change therefore would demonstrate the Commission’s commitment to acting within the scope of its limited role in regulating the securities markets.

For the reasons discussed herein, the Sponsor believes the listing of the Trust will further the public interest and be beneficial to investors in the securities markets, and, therefore, the Commission should approve the proposed rule change.

The specific questions in the Order are repeated and addressed below.

1. What are commenters’ views of the Exchange’s assertions that bitcoin is arguably less susceptible to manipulation than other commodities that underlie ETPs; that the geographically diverse and continuous nature of bitcoin trading makes it difficult and prohibitively costly to manipulate the price of bitcoin; that trading on inside information regarding bitcoin is unlikely; that the fragmentation across bitcoin markets, the relatively slow speed of transactions, and the capital necessary to maintain a significant presence on each trading platform make manipulation of bitcoin prices through continuous trading activity unlikely; that manipulation of the price on any single venue would require manipulation of the global bitcoin price to be effective; that a substantial OTC bitcoin market provides liquidity and shock-absorbing capacity; that bitcoin’s “24/7/365 nature” provides constant arbitrage opportunities across all trading venues; and that it is unlikely that any one actor could obtain a dominant market share?

The bitcoin marketplace is a 24-hour, 365-day per year global market, and given its history over the past seven years, the market has proven to be stable, resilient, fair and efficient. There exist numerous bitcoin exchanges globally where investors can trade bitcoin for government issued currencies such as U.S. dollars and euro.

Controlling or artificially affecting the market for bitcoin is extremely difficult. A potential manipulator would require a massive amount of capital distributed across numerous exchanges in multiple currencies and jurisdictions around the world. Beyond exchanges, bitcoin has a global and robust over-the-counter (“OTC”) market. The parallel existence of an exchange-based and an OTC market increases the difficulty of manipulation. So too does the existence of the regulated derivatives market for bitcoin on Cboe Futures Exchange and CME. Anyone attempting a manipulative act would simultaneously need to prevent others from taking
advantage of potential arbitrage opportunities between the exchanges, which is further complicated by the tremendous price transparency for bitcoin, for which Level II-type quotes are freely available from nearly all exchanges.

In addition, the bitcoin market does not suffer from one of the most common mechanisms of manipulation: fixed opening and closing prices. Opening and closing prices for common financial instruments is a frequent target for market manipulators. Bitcoin trades 24-hours, 365-days per year and never has an opening or closing price, eliminating completely the possibility of this sort of manipulation.

All of these market characteristics as described herein and in the Registration Statement, will make the shares of the Trust resilient to potential manipulation. In relevant part, the Commission defines manipulation as “intentional conduct designed to deceive investors by controlling or artificially affecting the market for a security.”

Because the Trust is Cboe BZX-traded, its shares should not be subject to risks of manipulation beyond those applicable to any publicly listed stock. While someone can attempt to spread false or misleading information about bitcoin or the Trust, the susceptibility to such disreputable conduct would not be unique to the Trust; it can be attempted with any exchange listed product. But as we explain below, an attempt to manipulate the price of bitcoin through bitcoin trading activity is difficult.

2. What are commenters’ views on the Sponsor’s assertion, described by the Exchange in the Notice, that “the OTC desks have a better measure of the market than any exchange-specific reference price, whether individually or indexed across multiple exchanges”? What are commenters’ views on the Exchange’s representation that, in the OTC markets, the dual elements of principal-to-principal trading combined with the large size at which trades are effected should effectively eliminate the ability of market participants to manipulate the market with small trades as may be the case on any individual exchange? What is the current typical number and volume of transactions on the OTC market? What are commenters’ views on whether the liquidity of the OTC bitcoin market, which would be used as the reference market for pricing the proposed ETP’s holdings, is sufficient for efficient bitcoin price discovery? What are commenters’ views on whether the liquidity of the OTC bitcoin market is sufficient to support efficient arbitrage between the price of the Shares and the spot price of bitcoin? What are the numbers of active traders, market makers, and other liquidity providers on the OTC bitcoin market? To what extent is trading in the OTC bitcoin market subject to regulation?

OTC desks rely on multiple factors when calculating the price of bitcoin. These include bitcoin prices on spot exchanges, bitcoin index prices, market liquidity, market volatility and the respective desk’s overall position in the market. The Sponsor moved to an OTC index for pricing and NAV for a multitude of reasons, not the least of which is the SEC Staff’s concerns with pricing on bitcoin spot exchanges. The OTC index is based on the mid-point of firm bid/ask quotes provided by constituent OTC desks. OTC desk prices are less likely than spot trading platforms to be subject to manipulation in the absence of misconduct by the trading desks themselves. Constituent OTC desks will enter into information sharing

agreements with Cboe. OTC desks trade with institutional and sophisticated investors and follow AML, KYC and BSA regulations, among others. Trades in the OTC market are principal-to-principal, making individual desks and specific trades identifiable and accountable to regulators. Potential manipulators would be caught immediately, providing the “necessary deterrent to manipulation” as described in the March 2017 disapproval notice concerning the SolidX Bitcoin Trust.7

The MVIS Bitcoin OTC Index is designed to track the performance of bitcoin in the U.S. OTC market. There is no component other than bitcoin in the index. The index is mid-price time series based on firm/tradable bid-ask quotes, with a minimum trade size to record of $250,000. The index is calculated in real-time daily between 00:00 and 24:00 (CET). The closing value for the index is 16:00:00 ET. The index values are disseminated to data vendors every 15 seconds and is denominated in U.S. dollars. The base index date is October 31, 2018 and the constituents are the three largest OTC trading desks located in the U.S.

In addition to the three active OTC trading desks in the U.S., there are seven OTC desks globally that regularly make markets for bitcoin. The Sponsor believes there are over 1,000 participants in the OTC bitcoin market with over 50 active participants on any given trading day entering into approximately 250-300 trades daily. The average OTC trade size ranges between $250,000 to $500,000, with a minimum of around $75,000. Large trade sizes have ranged between $5 million to $30 million. The spreads on a $10 million trade range between 50 basis points and 100 basis points, depending on market conditions and settlement duration. The Sponsor has observed that OTC trading enables superior arbitrage mechanisms and results when compared to on-exchange trading. All of these factors combined work to increases liquidity in the bitcoin market.

The OTC desks that comprise the MVIS OTC index mandate standard onboarding documentation requirements. For an institutional investor these include: certificate of incorporation, articles of organization, proof of physical address, documents reflecting ownership, control and organizational structure of the entity, copies of identification for each person authorized to trade, sources of funds such as pay stubs, bank statements and tax returns. For hedge funds, additional documents in the form of prospectuses, offering memorandums and proofs of registration are required, and trust agreements for trust entities.

Lastly, the CFTC’s jurisdiction is implicated when a virtual currency is used in a derivatives contract, or if there is fraud or manipulation involving a virtual currency traded in interstate commerce, which extends to bitcoin exchanges and the OTC bitcoin market.8 As reported by CFTC Chairman J. Christopher Giancarlo before the Committee on Banking, Housing and Urban Affairs, the CFTC can obtain trading data and analyze it for fraud and manipulation in underlying spot markets.9 Section 2(c)(2)(D) of the CEA grants the CFTC oversight authority over any transaction in a commodity (including virtual currencies) that is entered into with or offered to a person who is not an eligible contract participant or eligible commercial entity (a “retail customer”).

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9 See https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo37.
3. The Exchange asserts that the dissemination of information on the Trust’s website, along with quotations for and last-sale prices of transactions in the Shares and the IIV and NAV of the Trust, will help to reduce the ability of market participants to manipulate the bitcoin market or the price of the Shares and that the Trust’s arbitrage mechanism will facilitate the correction of price discrepancies in bitcoin and the Shares. In addition, the Exchange asserts that demand from new, larger investors accessing bitcoin through investment in the Shares will broaden the investor base in bitcoin, which could further reduce the possibility of collusion among market participants to manipulate the bitcoin market. The Exchange further states that the exploitation of arbitrage opportunities by Authorized Participants and their clients and customers will tend to cause the public trading price to track NAV per Share closely over time. What are commenters’ views regarding these statements? For example, do commenters agree or disagree with the assertion that Authorized Participants and other market makers will be able to engage in arbitrage and to make efficient and liquid markets in the Shares at prices generally in line with the NAV?

Market participants trading on the Exchange will determine the price at which shares of the Trust will trade. There is no guarantee that arbitrage trading on the exchange is sufficient to eliminate the possible spread between the share price and the value of the underlying bitcoin held by the Trust. The Trust is designed to ameliorate this risk through the creation and redemption process. The creation/redemption process provides Authorized Participants with an opportunity to arbitrage the spread between share price and NAV. This simultaneously reduces the available liquidity of bitcoin and increases the supply of Trust shares and vice versa.

The process of creating and redeeming Trust shares places pressure on both the shares and the underlying prices of bitcoin, which causes the Trust share spread to converge towards zero. In the aggregate, arbitrage pressure results in price adjustments that ensure stability between the Trust’s NAV and its current market price per share. The Trust’s creation and redemption process therefore increases the efficiency of the Trust, and also facilitates the arbitrage process to help keep the spread between the Trust share prices and its NAV small, thereby reducing the likelihood of bitcoin price manipulation.

4. What are commenters’ views, generally, on whether the proposed ETP would be susceptible to manipulation?

Cboe BZX’s rules are designed to provide transparency and prevent manipulation as market participants interact with each other. The Trust will offer complete transparency through its website, where all of the Trust’s holdings will be available. The Trust will use the MVIS OTC index to value its bitcoin holdings, which the Sponsor believes will provide investors and Authorized Participants with accurate pricing, including for purposes of calculating NAV. The rules of the Exchange therefore satisfy the Section 6(b)(5) standards.

The Trust shares would trade under BZX Rule 14.11(e)(4), which governs the listing and trading of Commodity-Based Trust Shares. This rule would require the Trust shares to meet initial and continued listing standards, and impose obligations on registered market makers in the shares intended to deter market manipulation and other misconduct, including limitations on certain trading activities and a requirement to make available to Cboe BZX certain records of
transactions by such market makers. Cboe BZX would have the ability to halt trading in the Trust shares, including in response to market conditions that are inconsistent with the maintenance of a fair and orderly market. These requirements make Cboe BZX’s proposal to list the Trust shares under its rules consistent with Section 6(b)(5).

The ability to manipulate the price of the Trust shares is expected to be immaterial due to the market structure of bitcoin trading. The following factors are important aspects of the trading environment that tend to mitigate manipulation risk:

- The NAV and IIVs are based on an OTC trading desk index provided by an independent third party valuation agent that recognizes that prices can deviate across trading desks and uses an algorithm that is designed to find a representative market price.

- The SEC does not regulate bitcoin exchanges and therefore Reg NMS does not apply. Accordingly, there are no requirements to trade at the national best bid and offer prices. This creates an opportunity and incentive for arbitrageurs to balance prices across various venues.

- Each bitcoin spot exchange and OTC trading desk is an independent entity. A liquidity event on one platform does not necessarily propagate across other platforms. This makes prices more resilient to liquidity shocks but also slows down the transmission of information. The independence of the various OTC trading desks also makes it harder to manipulate prices enough to have a material effect on the OTC index.

- Trading decisions at the OTC desks are not made by computers but rather by individual traders, thereby making ineffective any computer vs. computer manipulation techniques.

- Traders at the OTC desks have their own independent views about price. Unlike purely algorithmic systems, traders at the OTC desks do not react automatically to price movements on other venues. The non-mechanized nature of the OTC desks prevents the propagation of aberrant prices or attempts at manipulation.

- Concerted efforts to manipulate bitcoin prices enough to affect the level of the OTC index would require a significant capital investment on each desk in the index because one needs to trade with each desk in sufficient volume to change price, and the OTC index is designed to down-weight outlier prices. The capital requirements that would be required to manipulate prices may deter such behavior.

- Compared to equity markets, trading on bitcoin exchanges is relatively slow. Although the 24-hour nature of the market lends itself to algorithmic trading, there is no co-location on exchange servers and the number of available order types is relatively small. This means that cross-market arbitrage generally is available to all market participants at the same time.

- Given the degree of fragmentation across bitcoin exchanges, the relatively slow transaction speeds (compared to equity markets) and the capital necessary to maintain a significant presence on each one, the likelihood of spoofing is low.
• Manipulation of the open and close prices is not a significant risk because the market is open continuously and the OTC index is calculated on a continuous basis. The daily NAV that is used to calculate the price of creation and redemption baskets is fixed at 4:00 PM ET. In-kind creation and redemption orders must be placed by 4:00 PM ET and cash creation and redemption orders must be placed by 3:00 PM ET so that the Trust can purchase the requisite number of bitcoin.

• Over the long term, this additional transparency could enhance efficiency in the market for bitcoin. In addition, the listing and delisting criteria for the Trust shares are expected to help maintain a minimum level of liquidity and therefore minimize the potential for manipulation of the share prices.

The Commission must devote adequate weight to the important function that Cboe BZX as a self-regulatory organization performs under the Commission’s regulatory framework. Cboe BZX will play a central role in monitoring trading in the Trust shares and thereby exercise the responsibilities entrusted to it as a self-regulatory organization subject to Commission oversight. In exercising these responsibilities, Cboe BZX would have powerful regulatory and business incentives to ensure the integrity of the Trust shares. These factors combine to ensure an efficient and transparent market for the shares of the Trust.

5. What are commenters’ views on whether and to what extent bitcoin futures markets generally, and current volume on those markets specifically, affect the susceptibility of bitcoin to manipulation? What are commenters’ views on whether and to what extent other listed bitcoin derivatives, and the current volume on the markets for those derivatives, affect the susceptibility of bitcoin to manipulation?

As the Staff noted in its March 2017 order disapproving the proposed rule to trade shares of the SolidX Bitcoin Trust, to be consistent with Section 6(b)(5) of the Exchange Act, “an exchange that lists and trades shares of commodity-trust exchange-traded products (‘ETPs’) must, in addition to other applicable requirements, satisfy two requirements that are dispositive in this matter. First, the exchange must have surveillance-sharing agreements with significant markets for trading the underlying commodity or derivatives on that commodity. And second, those markets must be regulated.”10 Both Cboe Futures Exchange and CME are regulated markets on which bitcoin derivatives in the form of futures contracts trade. And Cboe BZX has in place surveillance sharing agreements with these markets.

The Sponsor notes the inherent ambiguity in the use of the word “significant” to define the adequacy of a derivatives market. The word “significant” is neither defined in prior SEC orders nor in any statute or guidance. Nonetheless, the Staff’s logic is clear with respect to reliance on a derivatives market as a prerequisite for the approval of other commodity ETPs: a would-be manipulator in the spot market would simultaneously need to manipulate the derivatives market in order for the manipulation attempt to be successful.

If the would-be manipulator does not participate in the derivatives market, arbitrageurs would become aware of the aberrant price on the spot market and trade in a manner counteracting it.

thus preventing the would-be manipulator from profiting. To prevent such an outcome, a would-be manipulator must also manipulate the derivatives market. With a derivatives market under proper surveillance, the manipulator would easily be caught. Consequently, the presence of a regulated derivatives market serves to deter and detect manipulation in the spot market. Such a market enables the listing of a commodity ETPs to be consistent with Section 6(b)(5) of the Exchange Act.

By the above logic, any derivatives market of a non-trivially small size is inherently significant in the context of dissuading manipulation. No would-be manipulator could ignore the derivatives market and succeed in manipulating the spot market as long as a functional derivatives market, such as the current bitcoin futures markets on both CME and Cboe Futures Exchange, is operational.

There now exists a significant market for bitcoin futures that will make the Trust shares less readily susceptible to manipulation. Trading of bitcoin derivatives on CME began in December 2017. The current combined daily trading volume of bitcoin futures contracts on Cboe Futures Exchange and CME is approximately $150 to $200 million. The significant volume combined with the surveillance-sharing agreements in place with these regulated derivatives markets, will help the Exchange detect and deter potential manipulations and other trading abuses.

Attached hereto as Exhibit A is an analysis of price formation and discovery for commodities, including bitcoin.

6. What are commenters’ views on the Trust’s proposal to value its bitcoin holdings based on an index—the MVBTCO—that is calculated through a proprietary, non-public methodology that uses the privately reported bid/ask spreads of an unidentified set of U.S.-based market-makers in the OTC marketplace, which, the Exchange says, has no formal structure and no open-outcry meeting place? Is the use of a non-public proprietary index to value holdings based on OTC activity an appropriate means to calculate the NAV of an ETP? What are commenters’ views on whether determining NAV based on the index value at 4:00 p.m. E.T. might, or might not, create an opportunity for manipulation of the NAV or of the Shares?

Please see responses above at Numbers 1 through 4.

7. What are commenters’ views on the statement in the Notice that, according to the Sponsor, the MVBTCO’s methodology decreases the influence on the MVBTCO of any particular OTC platform that diverges from the rest of the data points used by the MVBTCO, which reduces the possibility of an attempt to manipulate the price of bitcoin as reflected by the MVBTCO?

The OTC desks that comprise the MVBTCO are the largest and most liquid bitcoin trading desks in the U.S. As part of the index contributor selection process, MVIS outlined requirements for each desk to adopt fair valuation policies and procedures to properly price bitcoin in times of stress. In practice, each OTC desk compares bitcoin price information available in the broader marketplace, including bitcoin price indexes, and other liquid trading platforms to ensure fair pricing and to stay in line with the bitcoin market.
The MVBTCO methodology is designed to mitigate the influence of any single OTC desk by equally weighing the data derived from its constituents. In particular, MVBTCO uses Laspeyres’s formula to calculate in real time an average mid-price from firm/tradable bids and asks in amounts of $250,000 or more. MVIS also audits each pricing source to ensure the integrity of the data received, with procedures in place designed to exclude prices that may indicate signs of extreme divergence or possible manipulation.

The Sponsor, moreover, will continuously monitor the MVBTCO against the broader market and other reasonably available public data sources, and has discretion to fair value the Trust’s bitcoin holdings should it perceive the MVBTCO to not accurately represent the market price for bitcoin at any given time.

8. What are commenters’ views on each of the set of alternative means by which the Trust proposes to value its holdings in the event that the Sponsor determines that the MVBTCO, or another alternate pricing mechanism, has failed or is unavailable?

The primary mechanism the Sponsor will use to price the bitcoin held by the Trust will be the MVBTCO. The Sponsor has designed a reasonable waterfall of alternative pricing mechanisms should the OTC index become unavailable. The alternative pricing mechanisms include the midpoint price between the bid/ask obtained by the Sponsor from any one of the bitcoin OTC desks included within the MVBTCO, and the volume weighted average bitcoin price for the immediately preceding 24-hour period published by an alternative third party’s public data feed that the Sponsor determines is reasonably reliable. Should those sources also become unavailable, the Sponsor will use its best judgment to determine a good faith estimate of the bitcoin market price. Due to the significant dissemination of information relating to bitcoin prices in the marketplace, the Sponsor believes these alternative pricing mechanisms, and the order in which they would potentially be used, to be in the best interests of Trust shareholders.

9. The Exchange represents that, while the Trust intends to conduct the majority of its trading in the OTC market on the OTC platforms that comprise the MVBTCO, the Trust also will maintain an internal proprietary database, which it will not share with anyone, of potential OTC bitcoin trading counterparties, including hedge funds, family offices, private wealth managers, and high-net-worth individuals. The Exchange further states that OTC bitcoin trading is typically private and not regularly reported, and that the Trust does not intend to report its OTC trading. What are commenters’ views on how the Trust’s unreported OTC trades may affect the calculation of the Trust’s NAV and the ability of market makers to engage in arbitrage?

In light of the relative ease with which it is possible to take advantage of arbitrage opportunities across bitcoin spot exchanges, and the fact that OTC bitcoin trading is less than 50% of on-exchange trading by volume, the quantity of bitcoin that will be traded by the Trust in the OTC market will not represent a meaningful percentage of the bitcoin currently available for transaction on any given trading day. In addition, the Trust’s OTC trading will help facilitate the ability for market makers to arbitrage. This is due to the fact that the Trust will be a natural buyer or seller of bitcoin when market makers create and redeem shares. Therefore, the Trust’s “unreported” OTC trading will not have an affect on the calculation of the Trust’s NAV, but the Trust’s OTC trading with market makers will help facilitate the arbitrage process.
In the Sponsor’s experience, and as a practical matter, the depth of bitcoin liquidity available to OTC desks is comprised of the entire accessible market for bitcoin. By way of example, in a hypothetical scenario where OTC trading volume represented 0.01% only of the daily U.S. dollar/bitcoin on-exchange trading volume – an unprecedented and dubious event – the OTC desks would continue to be able to access liquidity pools available to them globally. The Sponsor therefore believes there would always exist liquidity in the OTC market sufficient for necessary creations and redemptions on any given trading day.

10. What are commenters’ views on the relationship between trading in the OTC bitcoin market and the wider global bitcoin market? What are commenters’ views on the circumstances pursuant to which the OTC bitcoin market may trade at a premium or discount to the global bitcoin market? What are commenters’ views on whether or not the OTC bitcoin market would provide a measure of insulation from erratic or dislocated trading in the global bitcoin market?

Please see responses above at Numbers 1 through 4.

11. What are commenters’ views on the cost and the efficiency of arbitrage across the various global markets for bitcoin? What are commenters’ views generally with respect to the liquidity and transparency of the bitcoin market, the bitcoin markets’ susceptibility to manipulation, and thus the suitability of bitcoin as an underlying asset for an ETP?

Please see responses above at Numbers 1 through 4.

12. What are commenters’ views on the Exchange’s representation that the Sponsor estimates that the U.S. dollar OTC bitcoin trading volume globally represents on average approximately 50% of the trading volume of bitcoin traded globally in U.S. dollars on U.S.- dollar-denominated bitcoin exchanges? Is the volume of U.S. dollar trading of bitcoin—which excludes bitcoin trading against other sovereign currencies or digital assets—a meaningful or appropriate measure of bitcoin market volume? Why or why not?

Based on its observation of the market, the Sponsor estimates that the daily OTC trading volume to be in a range of 25% to 50% of the on-exchange volume of U.S. dollar bitcoin trading across Coinbase, Gemini, itBit, Bitfinex, Bitstamp and Kraken. The Sponsor believes that U.S. dollar bitcoin trading volume is the most appropriate and meaningful measure of bitcoin market volume for any US-based investor desiring to invest in shares of the Trust. Information around U.S. dollar bitcoin trading is reported real time and readily available to market participants through numerous sources. Moreover, the Trust shares will be traded in the U.S. and priced in U.S. dollars, the Trust will use U.S.-based OTC desk pricing sources for its index, the OTC index will also be priced in U.S. dollars, the OTC desks trade principal-to-principal and are therefore identifiable and accountable to regulators for trades to which they are parties.

13. What are commenters’ views on whether the Exchange has entered into a surveillance-sharing agreement with a regulated market of significant size related to bitcoin? What are commenters’ views on the current regulation of bitcoin-related markets? What are commenters’ views on whether markets for listed bitcoin
derivatives—such as bitcoin futures markets—are markets of significant size? What are commenters’ views on whether there is a reasonable likelihood that a person attempting to manipulate the proposed ETP would also have to trade on a regulated bitcoin-related market with which the Exchange has a surveillance sharing agreement? What are commenters’ views on whether trading in the proposed ETP would be the predominant influence on prices in a regulated, bitcoin-related market with which the Exchange has a surveillance-sharing agreement?

Please see response above at Number 5.

14. The Exchange represents that it has entered into a comprehensive surveillance sharing agreement with the Gemini Exchange. What are commenters’ views on whether the Gemini Exchange is a market of significant size? What are commenters’ views on whether there is a reasonable likelihood that a person attempting to manipulate the proposed ETP would also have to trade on the Gemini Exchange? What are commenters’ views on whether trading in the proposed ETP would be the predominant influence on prices in the Gemini Exchange?

The Sponsor understands the Exchange is in process of entering into similar information sharing agreements with other U.S. dollar bitcoin exchanges and OTC trading desks. Such agreements will help the Exchange detect and deter potential manipulations and other trading abuses, thereby making the Trust shares less readily susceptible to manipulation.

15. According to the Exchange, the Shares will be purchased primarily by institutional and other substantial investors (such as hedge funds, family offices, private wealth managers, and high-net-worth individuals), which will provide additional liquidity and transparency to the bitcoin market in a regulated vehicle such as the Trust. The Exchange asserts that, with an estimated initial per-share price equivalent to 25 bitcoins, the Shares will be cost prohibitive for smaller retail investors while allowing larger and generally more sophisticated institutional investors to gain exposure to the price of bitcoin through a regulated product, eliminating the complications and reducing the risk associated with buying and holding bitcoin. What are commenters’ views regarding whether broker-dealers are likely to offer fractional shares in the Trust to retail investors, permitting retail investment with a smaller financial commitment? What are commenters’ views of the Exchange’s assertions that transacting in the Shares will be geared toward more sophisticated institutional investors and will be cost-prohibitive for smaller retail investors? What are commenters’ views regarding whether broker-dealers are likely to offer fractional shares in the Trust to retail investors, permitting retail investment with a smaller financial commitment? What are commenters’ views of the Exchange’s assertions that the Sponsor believes that demand from new, larger investors accessing bitcoin through investment in the Shares will broaden the investor base in bitcoin, which could further reduce the possibility of collusion among market participants to manipulate the bitcoin market, in light of the possibility that broker-dealers may offer fractional shares to their customers?

The Sponsor is not aware of any broker-dealer that offers investment in fractional shares in the ordinary course, and it takes no view to the extent a registered broker-dealer decides to offer fractional shares to their investors as an appropriate and suitable investment option.
There are apps such as Stockpile that offer investors ownership in fractional shares but doing so requires the broker-dealer to purchase a full share. At a price of around $200,000, the Sponsor does not believe apps such as Stockpile will be willing to allocate the purchase price and take the market risk of owning whatever balance of the fractional share is not owned by their investors.

With respect to apps such as Betterment, which offers to investors various pooled investment vehicles based on risk tolerance levels and investment objectives, Betterment would first have to conclude that bitcoin is an appropriate investment consistent with one of their investment options and then add Trust shares to one of their investment portfolios. Unlike Stockpile, Betterment does not offer fractional shares outside of the context of pooled investment vehicles.

The sponsor also notes that Stockpile, Betterment and all other registered broker-dealers can be penalized both by Finra and by the SEC for offering investments outside of the parameters of that which are suitable for the specific investor. Broker-dealers are an important safeguard in determining investment suitability. Consideration by broker-dealers of the suitability of shares of the Trust must be treated no differently from that of the suitability of all other investments.

16. The Exchange represents that there will be at least 100 Shares outstanding at the time of commencement of trading on the Exchange and that this amount of Shares outstanding at the commencement of trading will be sufficient to provide adequate market liquidity. What are commenters’ views on the Exchange’s assertion that a minimum of 100 Shares outstanding at the time of commencement of trading will be sufficient to provide adequate market liquidity? What are commenters’ views on whether the 100-share minimum would affect the arbitrage mechanism?

The Trust currently expects that there will be at least 100 Shares outstanding at the time of commencement of trading on the Exchange, which the Exchange believes to be sufficient to provide adequate market liquidity. Assuming a bitcoin price of $6,500 and approximately 25 bitcoin per Share, the shares would be approximately $160,000 each. With a minimum of 100 shares outstanding, the market value of all Shares outstanding would be approximately $16,000,000. Rules 14.11(e)(4)(C)(ii)(b) and (c) provide that the Exchange will commence delisting proceedings for a series of Commodity-Based Trust Shares where the applicable trust has fewer than 50,000 receipts or the market value of all receipts issued and outstanding is less than $1,000,000, respectively, following the initial 12 month period following commencement of trading on the Exchange.

These rules are designed to ensure that there are sufficient shares and market value outstanding to facilitate the creation and redemption process and ensure that the arbitrage mechanism will keep the price of a series of commodity-based trust shares in line with its NAV and prevent manipulation in the shares.

The Sponsor believes that Rule 14.11(e)(4)(C)(ii)(b) would not apply to the Trust shares because the Exchange believes that such policy concerns are otherwise mitigated. The lower number of shares is merely a function of price that will have no impact on the creation and redemption process and the arbitrage mechanism. Whether the Trust shares are priced equal to 25 bitcoin with a basket of five shares or the shares are priced equal to .025 bitcoin with a Basket of 5,000
shares, the cost to an Authorized Participant to create or redeem will be the exact same and such a creation and redemption will have the same proportional impact on the Trust shares and market value outstanding.

Because the creation units and redemption units for most exchange-traded products are between 5,000 and 50,000 shares, it makes sense to apply a minimum number of shares outstanding to such products. Where a creation unit is 5 shares, the policy concerns that Rule 14.11(e)(4)(C)(ii)(b) is designed to address are mitigated even where there are significantly fewer shares outstanding. As such, the Exchange’s proposal that it would not commence delisting proceedings for the Shares if the Shares do not satisfy Rule 14.11(e)(4)(C)(ii)(b).

17. What are commenters’ views on the Exchange’s assertion that, even though the Trust would not comply with the minimum number of shares outstanding required by Exchange rules, the policy concerns underlying that requirement would be otherwise mitigated in the case of the Trust, because the lower number of Shares is merely a function of the price of the Shares and will have no effect on the creation and redemption process or on arbitrage?

Please see response above at Number 16.

18. The Exchange states that the Trust will maintain crime, excess crime, and excess vault risk insurance coverage underwritten by various insurance carriers that will cover the entirety of the Trust’s bitcoin holdings. The Exchange further states that, while the Trust is confident in its system for securing its bitcoin, insurance coverage of all of the Trust’s bitcoin holdings eliminates exposure to the risk of loss to investors through fraud or theft, which in turn eliminates most of the custodial issues associated with a series of Commodity-Based Trust Shares based on bitcoin. What are commenters’ views of whether the proposed insurance coverage would affect trading in the Shares or in the underlying bitcoins? What are commenters’ views regarding the Trust’s proposed security, control, and insurance measures?

The Sponsor believes it is in the best interests of investors for the Trust to maintain insurance coverage for its bitcoin. In light of bitcoin’s novel and unique digital characteristics, among other reasons, there does not currently exist a traditional custodial infrastructure to secure the Trust’s bitcoin holdings, similar to the way in which other exchange-traded products custody and safeguarded assets to ensure investors are not exposed to the risk of loss or theft of the assets.

For example, other exchange-traded funds use traditional custodial firms and CCPs to safeguard assets, such as BNY Mellon, State Street, the National Securities Clearing Corporation and the Depository Trust & Clearing Corporation. Given the experiences in custodying various classes of assets, investors understandably do not tend to focus much attention on the possible loss or theft of assets held by exchange-traded funds. As a result of the protections provided by these traditional and regulated systems, the custodial and clearing firms mitigate risks and safekeep assets for the benefit of the investing public. No such mechanisms currently exist for bitcoin.
The Sponsor believes insurance is important to investor protection and the public interest because investors cannot be expected to assume the risks associated with the possible loss or theft of the Trust’s bitcoin. Indeed, the Sponsor believes that an exchange-traded product that invests in bitcoin without adequate insurance coverage would not be in the best interests of investors. The Sponsor believes it appropriate for investors to be protected to the extent possible from the potential loss or theft of bitcoin and for that reason the Sponsor secured bitcoin insurance for the Trust.

Anyone who invests in the Trust would be seeking exposure to the value proposition of bitcoin. Trust investors will expect to assume the market risk (i.e., bitcoin price fluctuations) associated with their investment. But it is appropriate to minimize the investor’s risks regarding the adequacy of the mechanisms and infrastructure used to secure the Trust’s bitcoin holdings; that is not a typical analysis undertaken by investors in the U.S. securities markets, nor should it be. Bitcoin insurance therefore is important for investor protection and the public interest, and is a key feature that enables the Trust to offer investors an opportunity to participate in the bitcoin market through an investment in securities while minimizing concerns or risks associated with the potential loss or theft of the Trust’s bitcoin.

In addition to maintaining insurance coverage, the Trust also uses the most hardened methods to secure the private keys associated with the Trust’s bitcoin holdings. The Trust uses exclusively what are known as cold storage wallets, which are specialized wallets that keep private keys on computers that are not connected to the Internet or any other computer network. In addition, the Trust is not client facing, does not run a bitcoin exchange or provide bitcoin custodial or wallet services, and the Trust’s bitcoin will not be exposed to a hot storage environment. Beyond cold storage wallets, the Trust also uses what are known as multi-signature transactions when transferring bitcoin, which requires bitcoin transactions to be digitally signed using more than one private key from within a set of pre-established valid private keys. The Trust also maintains business continuity plans and procedures designed to ensure a prompt recovery following the loss or partial loss of any of the Trust’s infrastructure, systems or facilities. For backup and disaster recovery purposes, the Trust will maintain cold wallet backups in locations geographically distributed throughout the U.S. Indeed, it was the design of the Trust’s bitcoin security and control systems that ultimately enabled the Trust to secure the comprehensive insurance coverage for the Trust’s bitcoin holdings.

* * *

Thank you again for the opportunity to provide a response to the Commission’s request for comments.

Very truly yours,

/s/ Daniel H. Gallancy

Daniel H. Gallancy, CFA
EXHIBIT A
Price Formation and Discovery

• Equities
  • Prices keyed to present value of future free cash flows
  • Highly liquid markets facilitate price discovery

• Crude Oil
• Silver
• Gold
• Bitcoin
Price Formation: Crude Oil

• Prices keyed to supply and demand in the spot market

• Crude oil does not function as a money substitute
  • Does not reflect a premium above its intrinsic value in industrial applications

• Shortages in the spot market result in higher prices
  • If shortages are expected to persist, producers increase output as long as marginal revenues exceed marginal costs
  • Eventual increases in supply of spot assets cause prices to drop
Price Discovery: Crude Oil

• Estimates from a vector error-correction (VEC) model indicate:
  • Short-term:
    • *Futures price* is positively related to lagged spot price and negatively related to lagged futures price
    • *Spot price* is insignificantly related to lagged spot and futures prices
  • Long-term: Futures lead spot – no evidence of bi-directional causation

• Estimates of vector autoregression of first differences in spot and future indicate:
  • Consistent with VEC model
  • First difference of spot are not significantly associated with the lagged first difference of the futures
  • First difference of futures are significantly associated with the lagged first difference in the spot
Price Formation: Silver

• Similar to oil, one can derive spot prices based on expected supply and demand conditions

• Silver cannot be viewed as a pure industrial commodity because it also functions as a “money substitute”
  • Silver trades at a premium relative to its intrinsic industrial value
  • This premium reflects market views regarding the asset’s ability to hold value in the future as well as its expected future transferability and liquidity
Price Discovery: Silver

• Estimates from a vector error-correction (VEC) model indicate:
  • Short-term:
    • Futures price positively related to lagged spot price and negatively related to lagged futures price
    • Spot price negatively related to lagged futures price and insignificantly related to lagged spot price
  • Long-term: Futures leads spot – no evidence of bi-directional causation

• Estimates of vector autoregression of first differences in spot and future indicate:
  • Consistent with VEC model
  • First difference of spot are not significantly associated with the lagged first difference of the futures
  • First difference of futures are significantly associated with the lagged first difference in the spot
Price Formation: Gold

• Similar to silver, one can derive spot prices based on expected supply and demand conditions
• Gold cannot be viewed as a pure industrial commodity because it also functions as a “money substitute”
  • The premium over its value as an industrial commodity reflects market views regarding the asset’s ability to hold value in the future as well as its expected future transferability and liquidity
  • The premium related to its role as a money substitute is higher for gold than silver
Price Discovery: Gold

• Estimates from a vector error-correction (VEC) model indicate:
  • Short-term:
    • Futures price positively related to lagged spot price and negatively related to lagged futures price
    • Spot price is not significantly related to lagged futures and spot prices
  • Long-term: Futures lead spot – no evidence of bi-directional causation
    • Rapid reversion of spot to futures

• Estimates of vector autoregression of first differences in spot and future indicate:
  • Consistent with VEC model
  • First difference of spot are significantly associated with the lagged first difference of the futures
  • First difference of futures are not significantly associated with the lagged first difference in the spot
Commodity Futures – Bottom Line

• Futures markets perform a valuable role in price discovery
• The empirical evidence indicates that the spot and futures prices are cointegrated
  • This indicates that the spot and futures prices are tightly linked
  • This is evidence of a well-functioning capital market
Price Formation - Bitcoin

• Similar to gold and silver, it derives most (all) of its value as a money substitute
Bitcoin Futures and Spot Prices from 12/18/2017 to 9/28/2018
Price Discovery - Bitcoin

• Estimates from a vector error-correction (VEC) model indicate:
  • No significant short-term price effects
  • Spot leads futures – no evidence of bi-directional causation
  • Rapid reversion of futures to spot

• Estimates of vector autoregression of first differences in spot and future indicate:
  • Consistent with VEC model
  • First difference of spot are not significantly associated with the lagged first difference of the futures
  • First difference of futures are significantly associated with the lagged first difference in the spot
Bitcoin Futures – Bottom Line

• Similar to commodity futures, the empirical evidence indicates that the spot and futures prices are cointegrated
  • This indicates that the spot and futures prices are tightly linked
  • This is evidence of a well-functioning capital market
Significance of Futures Markets - Volume and Open Interest

Bitcoin CME Futures Volume and Open Interest from 12/18/2017 to September 28, 2018
Significance of Futures Markets - Relative Volume from Contract Inception
Ratio of CME Futures Volume to Spot Volume from Liquid Exchanges

* Liquid exchanges included in this figure are Bitfinex, Bitstamp, Coinbase, Gemini, itBit and Kraken
### Vector Error-Correction Model

<table>
<thead>
<tr>
<th>Long-run influence of k-lagged spot</th>
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<th>Z-score</th>
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<th>Coeff.</th>
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### Vector Autoregression of First-Differences

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<th>Coeff.</th>
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## Silver Time Series Regression Models

### Vector Error-Correction Model

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### Vector Autoregression of First-Differences

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### Gold Time Series Regression Models

#### Vector Error-Correction Model

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#### Vector Autoregression of First-Differences

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## Bitcoin Time Series Regression Models

### Vector Error-Correction Model

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### Vector Autoregression of First-Differences

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