

SolidX Management LLC  
200 Park Avenue  
New York, NY 10166

November 23, 2016

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

**Re: File No. SR-NYSEArca-2016-101**

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. 34-79171 (the “Order”) regarding the proposed rule change by NYSE Arca, Inc. (the “Exchange” or “NYSE Arca”) that would permit the listing and trading of shares of the SolidX Bitcoin Trust (the “Trust”) on the Exchange pursuant to NYSE Arca Equities Rule 8.201.

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 investor protection and the public interest. 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.

Section 6(b)(5) of the Securities Exchange Act of 1934 (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<sup>1</sup> and this submission, 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

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<sup>1</sup> See <https://www.sec.gov/cgi-bin/browse->

the securities markets to the public.<sup>2</sup> And many investors today consider investments in non-traditional asset classes to be an essential element in portfolio diversification.<sup>3</sup> 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 NYSE Arca, and can be bought or sold at any time during the trading day.
- No minimum investment: An investor may hold as little as a single share, which represents approximately one tenth of a bitcoin (the current price of which is over \$700).
- 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.

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

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<sup>2</sup> 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”).

<sup>3</sup> See “Beginners’ Guide to Asset Allocation, Diversification, and Rebalancing,” <http://www.sec.gov/investor/pubs/assetallocation.htm>.

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, and (iii) listing of the Trust's shares would not lead to manipulative acts or practices. 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 NYSE Arca Rule 8.201. Currently, there exists one product in the U.S. that trades on the OTC Markets<sup>4</sup> and two products listed on European exchanges that invest in bitcoin.<sup>5</sup> 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.<sup>6</sup> 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.<sup>7</sup> Therefore, although there is nothing preventing retail investors from participating directly in the bitcoin market, as some in fact do, the Sponsor believes, based on the current state

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<sup>4</sup> See <http://www.otcmarkets.com/stock/GBTC/quote>.

<sup>5</sup> See <http://www.nasdaqomxnordic.com/etp/etn/etn-historical?Instrument=SSE109538>, and <http://en.boerse-frankfurt.de/zertifikate/Auf-ETI-Malta-Ltd-Compartment-1/A2CESB>.

<sup>6</sup> See, e.g., Amendment to Rule Filing Requirements for Self-Regulatory Organizations Regarding New Derivative Securities Products, Release No. 34-40761 (Dec. 8, 1998) (noting "increasing competition from overseas and over-the-counter ('OTC') derivatives markets").

<sup>7</sup> See, e.g., [https://www.sec.gov/investor/alerts/ia\\_virtualcurrencies.pdf](https://www.sec.gov/investor/alerts/ia_virtualcurrencies.pdf), <https://investor.gov/additional-resources/news-alerts/alerts-bulletins/investor-alert-bitcoin-other-virtual-currency>, <https://www.sec.gov/litigation/complaints/2013/comp-pr2013-132.pdf>, <https://www.sec.gov/litigation/admin/2014/33-9592.pdf>, <https://www.sec.gov/litigation/admin/2014/33-9685.pdf>, <https://www.sec.gov/litigation/complaints/2015/comp23415.pdf>, <http://www.cftc.gov/PressRoom/PressReleases/pr7231-15>, and *U.S. v. Hill*, U.S. District Court, Southern District of New York, No. 16-mj-6437.

of the bitcoin market and its participants, many will continue to be frozen out of these markets because of the technological, counterparty and custodial issues associated with sourcing and holding bitcoin on bitcoin exchanges. As a full-fledged exchange listed product in the U.S., the 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.

For the reasons discussed herein, the Sponsor believes that 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.

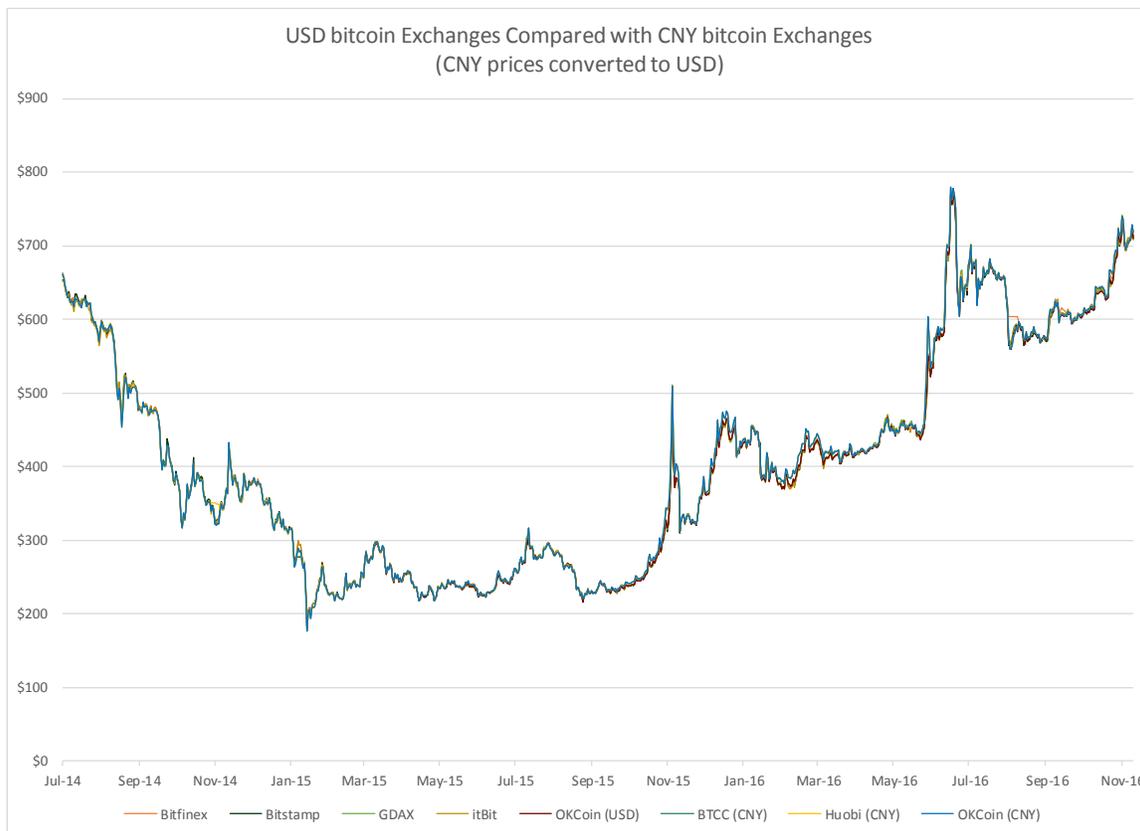
1. There are currently no exchange-traded products ("ETPs") available on U.S. markets that hold a digital asset such as bitcoins, which have neither a physical form (unlike commodities) nor an issuer that is currently registered with any regulatory body (unlike securities, futures, or derivatives), and whose fundamental properties and ownership can, by coordination among a majority of its network processing power, be changed (unlike any of the above). What are commenters' views about the current stability, resilience, fairness, and efficiency of the markets on which bitcoins are traded? What are commenters' views on whether an asset with the novel and unique properties of a bitcoin is an appropriate underlying asset for a product that will be traded on a national securities exchange? What are commenters' views on the risk of loss via computer hacking posed by such an asset? What are commenters' views on whether an ETP based on such an asset would be susceptible to manipulation?

The bitcoin marketplace is a 24-hour, 365-day per year market, and given its history over the past five 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, euro and Chinese yuan. During the preceding twelve-month period, approximately 30 million bitcoin traded at U.S. dollar prices ranging between \$313 and \$768 million for a total trade volume of over \$14 billion.<sup>8</sup>

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<sup>8</sup> See, <https://data.bitcoinity.org/>, <http://www.coindesk.com/price/> and <https://tradeblock.com/markets/>.

In addition to the U.S. dollar bitcoin market, there exists a significant market in China where investors trade bitcoin for Chinese yuan. As the chart<sup>9</sup> below demonstrates, however, the prices on the U.S. bitcoin exchanges and Chinese exchanges tend to closely track with minimal variation, in spite of the various capital controls in effect in China.<sup>10</sup>



The continuous global trading of bitcoin demonstrates that the bitcoin market is resilient, fair and efficient. Even the recent theft of \$60 million worth of bitcoin on the Bitfinex exchange did not damage the resiliency of the market. On the day prior to the breach, which occurred on August 2, 2016, bitcoin traded at prices around \$607. On the day following the breach, the price of bitcoin declined as low as \$480, but quickly recovered that same day to over \$550, and as of the date of this submission is trading over \$700. The performance of the bitcoin market prior to and directly after the Bitfinex incident evidences a mature market with investors ready, willing and able to trade bitcoin during times of price volatility.

As for the risk of loss via computer hacking posed by bitcoin, as discussed in detail below, the Trust will maintain insurance against loss or theft of bitcoin. Beyond bitcoin insurance, the Sponsor is not client facing (e.g., it does not operate a bitcoin exchange or otherwise interact with customers seeking to buy, sell or custody bitcoin) and will not hold bitcoin in a hot wallet or

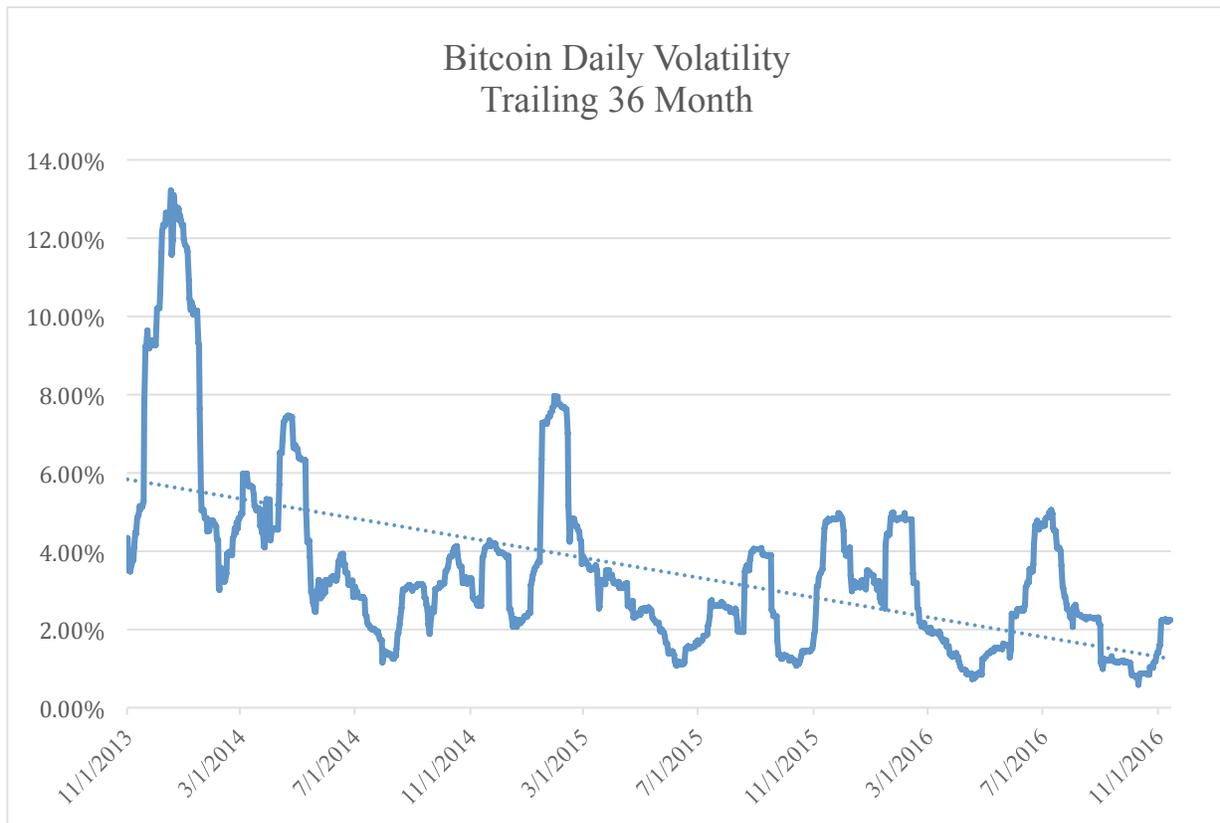
<sup>9</sup> *Id.*

<sup>10</sup> The Chinese yuan is a controlled currency with a fixed exchange rate (i.e., the value is not freely traded) to the U.S. dollar.

any other network-attached system, thereby minimizing the risk of loss of bitcoin via computer hacking.

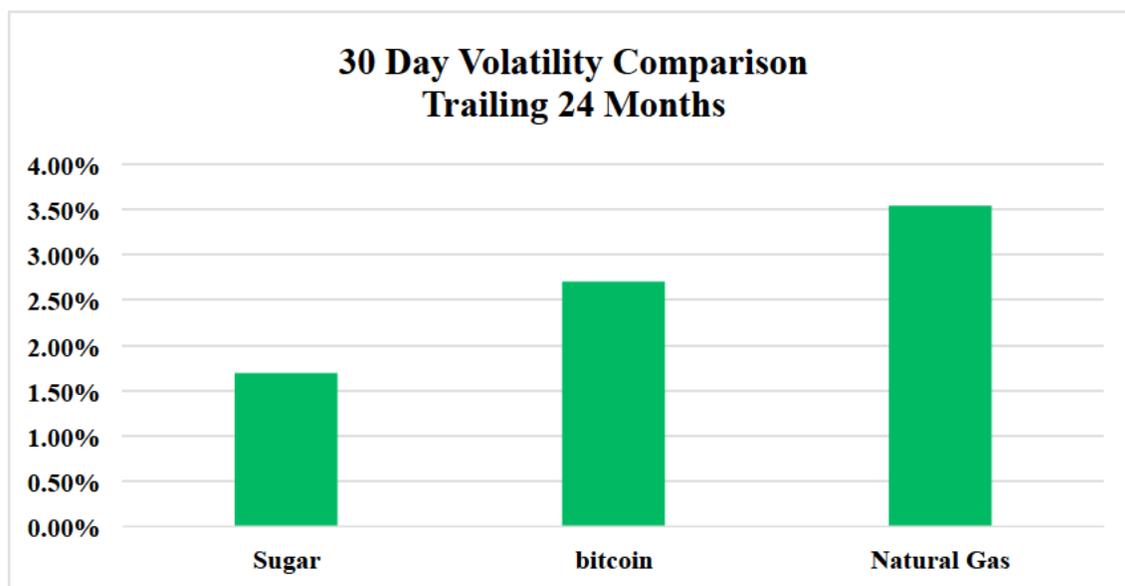
The Sponsor believes that investors perceived the Bitfinex incident as a temporary operational problem limited to a single entity that ultimately did not affect the overall bitcoin market. Indeed, Bitfinex has rebounded and consistently continues to have the highest volume of trading on any of the U.S. dollar-denominated bitcoin exchanges.

When considering the stability of the bitcoin market, the daily volatility of bitcoin has been decreasing over the past three years as demonstrated in the following chart<sup>11</sup>:



<sup>11</sup> See, <https://data.bitcoinity.org/>, <http://www.coindesk.com/price/> and <https://tradeblock.com/markets/>.

Bitcoin's volatility is within the range of other commodities commonly traded by capital markets investors. For example, during the past two years, bitcoin has been more volatile than sugar but less volatile than natural gas as shown below<sup>12</sup>:



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.”<sup>13</sup> Because the Trust is NYSE Arca-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.

Controlling or artificially affecting the market for bitcoin is incredibly 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. 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.

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<sup>12</sup> *Id.*

<sup>13</sup> See <https://www.sec.gov/answers/tmanipul.htm>.

Beyond the above, 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.

2. According to the Exchange, the logic utilized for the derivation of the daily closing index level for the XBX is intended to analyze actual bitcoin transactional data, verify and refine the data set, and yield an objective, fair-market value of one bitcoin as of 4:00 p.m., E.T., each weekday, priced in U.S. dollars. What are commenters' views on the Trust's proposal to value its holdings based on XBX and on the methodology used by XBX? What are commenters' views on the alternative and sequential manner in which the Trust proposes to value its holdings in the event that the Sponsor determines that a rule has failed if a pricing source is unavailable or, in the judgment of the Sponsor, is deemed unreliable?

The Sponsor expects to transact in bitcoin on behalf of the Trust primarily in connection with creation and redemption of baskets, and due to the size of the baskets (over \$700,000 as of the date of this submission), the Sponsor expects that most bitcoin transactions will be effected in large amounts. Unlike most other asset classes, price discovery for bitcoin is extensive. There exist multiple exchanges around the world on which bitcoin is traded in U.S. dollars – there currently exist seven U.S. dollar-denominated bitcoin exchanges that are relevant to this discussion.<sup>14</sup> Based on the Sponsor's experience, the U.S. dollar/bitcoin exchange market is quite liquid.

A well-designed index is the most effective and appropriate means for measuring an objective, fair-market value of one bitcoin priced in U.S. dollars as of 4:00 p.m., E.T., each weekday. The methodology used in generating the XBX index bitcoin price makes it provably resistant to the threats and pricing issues associated with using a single exchange as a pricing mechanism. The XBX index is a real-time U.S. dollar-denominated composite reference rate for the price of bitcoin, and as demonstrated by the data presented in the Registration Statement, the XBX index price closely approximates actual bitcoin transaction prices across the various U.S. dollar-denominated bitcoin exchanges, and accurately reflects the fair value of bitcoin for valuation, accounting purposes and as a practical matter.

Among other things, the XBX index algorithm is based on the International Organization of Securities Commissions standards for financial benchmarks, offering maximum tradability and protection from price manipulation and market anomalies. The index value is algorithmically calculated once every second based on observed trading activity on leading U.S. dollar-denominated bitcoin exchanges. The index is volume and price variance weighted and

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<sup>14</sup> These are Bitfinex, Bitstamp, GDAX (f/k/a Coinbase), Gemini, itBit, Kraken and OKCoin International. Although in fact there exist other exchanges on which investors can trade bitcoin in U.S. dollars, either the volume on these other exchanges is inconsequential, the exchanges do not comply with any regulations (e.g., AML and KYC) of which the Sponsor is aware, or there is insufficient information regarding these exchange and, therefore, the Sponsor ignores those exchanges for purposes of this discussion.

automatically adjusts for exchange trading inactivity. As a result of the fluctuations in trading volumes across the various bitcoin exchanges, relying on the spot price of any one exchange may prove problematic because the most recent bid or ask on such exchange may represent a stale price that has not been updated for some time, and thus may not accurately represent the price at which the Trust could transact at that time. The XBX index's methodology penalizes stale prices on any given exchange. If an exchange does not have recent trading data, its weighting is gradually reduced, until it is de-weighted entirely. Similarly, once activity resumes, the corresponding weighting for that constituent exchange is gradually increased until it reaches the appropriate level.

For example, during the August 2, 2016 Bitfinex incident discussed above, the XBX index algorithm performed as expected by automatically de-weighting Bitfinex's influence on the index, and eventually automatically eliminated Bitfinex as a pricing source given that trading on the exchange was halted. Throughout this period, which lasted several days, the XBX index continued to provide an accurate price for bitcoin using its other constituent exchanges. Even under normal circumstances, the particular exchange with the highest volume changes periodically and even daily. Accordingly, reliance on a single exchange may result in a price calculation based on a market that has neither the highest volume nor the most advantageous price at any given time, and thus would not provide the most accurate representation of the price at which the Trust could transact in bitcoin. Indeed, all of the characteristics of the XBX index combine to make the index manipulation-resistant and responsive to market movements in real-time, and therefore a superior mechanism – compared to using a single exchange – to value the Trust's bitcoin holdings.

Using a single exchange to value the bitcoin holdings of an exchange-traded product like the Trust would expose investors to multiple risks. A single exchange, especially one with relatively low trading volume, is susceptible to multiple threats if used to measure an objective, fair-market value of one bitcoin as of 4:00 p.m., E.T., each weekday, priced in U.S. dollars. For example, the exchange's API could be operating unreliably or experiencing an outage (something that various exchanges have experienced in the past), which would result in a stale 4:00 p.m. price; or a large buy or sell order entered close to 4:00 p.m. could easily influence (whether intentionally or otherwise) the spot price on the exchange, which would result in a price that is divergent from the rest of the market and not representative of the fair value of one bitcoin.

To the extent an auction mechanism is employed at an exchange to price bitcoin at a particular point in time, this process would not resolve the pitfalls associated with using a single pricing source. As an initial matter, there is no guarantee that an auction will be successful – auctions can and will fail, as, for example, they have on the Gemini exchange.<sup>15</sup> The implementation of the 4:00 p.m. auction on Gemini has also severely concentrated intra-day trading on the exchange and has not improved the overall low trading volume on the exchange. In addition, bids and offers can be added and removed throughout the day up until the final auction time, meaning that any indicative rates throughout the day would be unreliable for the purpose of ongoing creation and redemption of shares. The Gemini auction is also subject to potential manipulation given Gemini's fee rebate schedule, which equates to a maker/maker model as

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<sup>15</sup> The Gemini exchange has already experienced two auction failures, see <http://gemiauctionhistory.bitballoon.com/>.

opposed to the traditional maker/taker model. Two parties on Gemini wishing to collude for the purpose of simulating trade volume can agree to create auction bids with crossing prices. Successful auction orders are eligible for Gemini fee rebates and thus the colluding parties can alternate daily buy/sell orders and reverse their respective trading roles each day. The risk of loss by each party is minimal considering they know they will be rewarded with a 0.15% fee rebate for each trade they place.

The following chart reflects the average and median price variances, measured at 4:00 p.m. New York time, between the price of bitcoin as reflected by the XBX index and the spot price of bitcoin on its constituent exchanges since the launch of the index in 2014<sup>16</sup>:

<b>Variance Between XBX Index and its Constituent Exchanges July 2014 - Nov 2016</b>		
<b>Exchange</b>	<b>Average</b>	<b>Median</b>
Bitfinex	0.23%	0.12%
Bitstamp	0.26%	0.16%
GDAX (f/k/a Coinbase)	0.22%	0.13%
itBit	0.28%	0.11%
OKCoin	0.22%	0.14%

The chart above demonstrates that even though the price of bitcoin among the various U.S. dollar-denominated bitcoin exchanges tends to deviate, those price deviations from the overall XBX index price are negligible. The XBX index methodology therefore most accurately reflects the U.S. dollar price of bitcoin in the market.

As for the alternative and sequential manner in which the Trust proposes to value its holdings in the event the Sponsor determines that a rule has failed if a pricing source is unavailable or, in the judgment of the Sponsor, is deemed unreliable, the sequence first involves using the CoinDesk Bitcoin Price Index as of 4:00 p.m. E.T., on the valuation date. The next sequential method will be to use the volume weighted average bitcoin price for the immediately preceding 24-hour period at 4:00 p.m. E.T. on the valuation date as published by an alternative third party's public data feed that the Sponsor determines is reasonably reliable, subject to the requirement that such data is calculated based upon a volume weighted average bitcoin price obtained from the major U.S. dollar-denominated bitcoin exchanges. Lastly, the Sponsor will use its best judgment to determine a good faith estimate of the bitcoin market price. Importantly, none of these sequential alternatives intend to rely on a single pricing source and therefore are not subject to the drawbacks associated with single pricing sources as discussed above. There exist other reference rates and composite bitcoin indexes in the

<sup>16</sup> See, <https://data.bitcoinity.org/>, <http://www.coindesk.com/price/> and <https://tradeblock.com/markets/>.

market that the Sponsor will be able to use to satisfy the proposed sequential manner in which it proposes to price the Trust's bitcoin holdings.<sup>17</sup>

Based on the reasons discussed above, the Sponsor believes that using the XBK index, followed by the alternative and sequential manner in which the Trust proposes to value its bitcoin holdings is consistent with investor protection and in the public interest.

3. Given the novelty and unique digital characteristics of bitcoin as an asset class, and in the interest of adequate security and investor confidence in bitcoin control, 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 custodizing various classes of assets, investors understandably don't 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

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<sup>17</sup> See, e.g., <https://www.nyse.com/quote/index/NYXBT>, <https://www.kaiko.com/price-index/global>, <https://bitcoinaverage.com/en/bitcoin-price/btc-to-usd>, and <http://www.cmegroup.com/trading/cf-bitcoin-reference-rate.html>.

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 Sponsor also uses the most hardened methods to secure the private keys associated with the Trust's bitcoin holdings. The Sponsor uses 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 Sponsor is not client facing, does not run a bitcoin exchange or provide bitcoin wallet services, and the Trust's bitcoin will not be exposed to a hot storage environment. Beyond cold storage wallets, the Sponsor 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 Sponsor 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 Sponsor will maintain cold wallet backups in locations geographically distributed throughout the United States. Indeed, it was the design of the Sponsor's bitcoin security and control systems that ultimately enabled the Sponsor to secure the comprehensive insurance coverage for the Trust's bitcoin holdings.

There has been a suggestion by commenters in the market that a so-called "proof of control" audit of bitcoin would be a good practice that would bolster shareholder protections.<sup>18</sup> Proof of control could inspire investor confidence in the safety of a bitcoin holder's security system and might be a useful tool for transparency. Nonetheless, proof of control does not actually prevent loss or theft of bitcoin. A bitcoin holder could provide proof today of his holdings but such proof does nothing to prevent a loss event from occurring tomorrow. Proof of control does not provide remotely the same level of investor protection as insurance.

4. The proposal states that bitcoin trades on more than 30 exchanges globally on a 24-hour basis and that, therefore, it is difficult for attempted market manipulation on any one exchange to affect the global market price of bitcoin. The proposal further states that any attempt to manipulate the price would result in an arbitrage opportunity among exchanges, which typically would be acted upon by market participants. What are commenters' views on the cost and the efficiency of the arbitrage among the various global markets for bitcoin? What are commenters' views generally with respect to the liquidity and transparency of the bitcoin market, susceptibility to manipulation, and thus the suitability of bitcoins as an underlying asset for an ETP?

The majority of bitcoin transactions are executed on public bitcoin exchanges where bitcoin is bought and sold daily for value in U.S. dollar, euro and other government currencies. These bitcoin exchanges provide the most data with respect to prevailing prices of bitcoin. The exchanges typically publish real-time trade data including last price, bid and ask spread, and trade volume on their respective websites and through application programming interfaces. The existence and availability of the numerous pricing sources for bitcoin delivers unmatched price transparency when compared to most any other asset.

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<sup>18</sup> See <https://www.sec.gov/comments/sr-batsbzx-2016-30/batsbzx201630-21.pdf>, and <https://www.sec.gov/comments/sr-batsbzx-2016-30/batsbzx201630-23.pdf>.

The level of volume of bitcoin trading both on-exchange and in the OTC market is significant, and the bitcoin market is indeed a liquid market. During the preceding twelve-month period (November 2015, through November 2016), the trading volume on the five constituent exchanges comprising the XBX index (Bitfinex, Bitstamp, GDAX, itBit and OKCoin International) represented the overwhelming majority of the entire U.S. dollar-denominated bitcoin exchange market, and average daily trade volume during this period on these exchanges was approximately \$24 million.<sup>19</sup>

There exist several Chinese yuan-denominated exchanges located in China. These include BTCC, Huobi and OKCoin Exchange China. The trading volume on these exchanges is significant, but is limited to Chinese yuan. The following chart compares the daily bitcoin spot prices on BTCC, Huobi, OKCoin Exchange China, Bitfinex, Bitstamp, GDAX, itBit and OKCoin International<sup>20</sup>:



The Sponsor has observed that the price of bitcoin on BTCC, Huobi and OKCoin Exchange China is consistent with the price of bitcoin on the major U.S. dollar-denominated bitcoin exchanges, as reflected in the chart directly above. The data presented in the above chart demonstrates that bitcoin prices have remained relatively consistent among all the various bitcoin exchanges. Consequently, for purposes of arbitrage among all the various bitcoin exchanges

<sup>19</sup> See, <https://data.bitcoinity.org/>, <http://www.coindesk.com/price/> and <https://tradeblock.com/markets/>.

<sup>20</sup> *Id.*

(including those that trade bitcoin for U.S. dollars and Chinese yuan), the above data supports the conclusion that the exchange market is efficient and is in general resistant to manipulation.

The Trust will offer complete transparency through its website, where all of the Trust's holdings will be available. The Trust will use the XBX 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. These factors combine to ensure an efficient and transparent market for the shares of the Trust.

5. The proposal states 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 intra-day indicative value 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. The proposal further states that the Trust's arbitrage mechanism will facilitate the correction of price discrepancies in bitcoin and the Shares and that demand from new 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. What are commenters' views regarding these statements? Do commenters' agree or disagree with the assertion that Authorized Participants and other market makers will be able to make efficient and liquid markets in the Shares at prices generally in line with the NAV?

Please see responses above at Numbers 1 and 4 and below at Numbers 6 and 7.

6. The proposal states that the Sponsor of the Fund may engage in principal trades of NDFs with market makers and Authorized Participants in order to facilitate hedging for Authorized Participants who do not possess the technical abilities to transact directly in bitcoin. In addition, to the extent requested by Authorized Participants and market makers, the Sponsor would act as agent by buying and selling bitcoin on behalf of the Authorized Participants and market makers. What are commenters' views on any potential conflict of interest that may be created by this arrangement, which would involve the Sponsor acting in a capacity other than as agent for the Fund? Would this arrangement affect the effectiveness and efficiency of the arbitrage mechanism and, if so, how? What other effects, if any, might this activity by the Sponsor have on the operation of the Fund?

Bitcoin non-deliverable forward contracts ("NDF") and swaps will ensure an efficient and liquid market for shares of the Trust, which will further investor protection and the public interest. Authorized Participants and market makers will generally want to hedge their exposure to bitcoin in connection with basket creation and redemption orders. Not all Authorized Participants and market makers are ready, willing and able to trade bitcoin, and will require a mechanism to gain synthetic exposure to bitcoin for their hedging needs when they enter orders to create and redeem shares. Authorized Participants will be able to use NDFs and swap contracts to obtain synthetic long and short exposure to bitcoin for their hedging purposes. The Sponsor expects that several participants in the bitcoin marketplace, including bitcoin exchanges and bitcoin OTC market participants, will offer NDFs and swaps. The Sponsor itself (operating on a principal basis) also may offer NDFs and swaps in order to provide Authorized Participants and market makers with

additional options for hedging their exposure to bitcoin. And to the extent requested by Authorized Participants and market makers, the Sponsor may also act as agent by buying and selling bitcoin on behalf of the Authorized Participants and market makers, including short sale orders, solely for their hedging purposes. These arrangements will make it possible for Authorized Participants and market makers that lack the trading infrastructure to transact in bitcoin to be able to hedge their exposure when creating and redeeming shares of the Trust.

The Sponsor will only enter into NDF and swap transactions with Authorized Participants and market makers, and/or act as agent by buying and selling bitcoin on behalf of Authorized Participants and market makers, to the extent requested by Authorized Participants and market makers solely for their hedging needs. The Trust will not be a party to any such transactions. The Sponsor's goal here is limited to ensuring an efficient market for the shares of the Trust, which in turn is consistent with investor protection and the public interest. The Sponsor would enter into NDF and swap transactions for the purpose of enabling Authorized Participants and market makers to hedge their exposure to bitcoin, whether directly (by entering into non-deliverable forward contracts and swap contracts with Authorized Participants) or indirectly (by acting as agent by buying and selling bitcoin on behalf of the Authorized Participants, solely for their hedging purposes).

Others in the marketplace, in addition to the Sponsor, also intend to enter into NDFs and swaps with Authorized Participants and market makers. The Sponsor's availability to enter into such transactions will provide Authorized Participants and market makers an additional option for hedging their exposures to bitcoin, and thus will further Authorized Participants' and market makers' ability to engage in creation and redemption transactions with the Trust in a way that will promote an efficient market. The Sponsor's intention to enter into these transactions is to benefit the Trust, and the Sponsor does not believe these transactions will present a conflict of interest concerning the Sponsor's other bitcoin trading activities and responsibilities on behalf of the Trust.

The Sponsor believes that its potential NDF and swap transactions with Authorized Participants and market makers will not materially impact the price at which the Sponsor can buy and sell bitcoin in connection with creation and redemption orders. Whether it is the Sponsor or another party that enters into the NDF or swap transactions with the Authorized Participants and market makers, or whether the Authorized Participant or market maker transacts directly in bitcoin, either alternative should not materially impact the price at which the Sponsor can buy and sell bitcoin in connection with creation and redemption orders. This is because the aggregate quantity of bitcoin purchased and sold in the market will neither be amplified nor reduced by virtue of who (the Sponsor or another party) is entering into the NDF and swap transaction with the Authorized Participants and market makers.

7. Under the proposal, Baskets may be created or redeemed utilizing bitcoin or cash. What are commenters' views on whether cash creations and redemptions are consistent with the requirements under NYSE Arca Rule 8.201, which governs the listing and trading of Commodity-Based Trust Shares on the Exchange?

Cash creations and redemptions are consistent with the requirements under NYSE Arca Rule 8.201. The rule is not limited without exception to in-kind creation and redemption orders and there is nothing exceptional about cash creation and redemption orders for exchange-traded products. For example, the Sprott Physical Gold Trust allows creation and redemption orders in cash, and, although it never launched, the First Trust Gold Trust was approved under Rule 8.201 for cash creation and redemption orders. In addition, numerous other non-commodity exchange-traded products permit cash creations and redemptions.

Cash creation and redemption orders will ensure an efficient and liquid market for the shares of the Trust, which will further investor protection and the public interest. Not all Authorized Participants are ready, willing and able to trade bitcoin and, therefore, are not prepared to create and redeem shares in kind. However, a substantial number of market makers do indeed transact directly in bitcoin. Although certain Authorized Participants have represented to the Sponsor their intention to create and redeem shares in kind, not all Authorized Participants are equipped to deal with bitcoin or currently are prepared to trade bitcoin. Whether they do not have the expertise necessary to trade bitcoin or not have dedicated internal resources to bitcoin trading, the initial pool of Authorized Participants who will choose to create and redeem in kind will be limited, even though the Sponsor expects that number to expand over time.

Because the Trust offers Authorized Participants the options to create and redeem both in kind and using cash, all Authorized Participants who enter into an Authorized Participant Agreement with the Trust will have the ability to use cash to create and redeem shares of the Trust. This flexibility expands the number of Authorized Participants and market makers that are able to transact with the Trust. Consequently, the cash creation and redemption mechanism is central to the success of an efficient and liquid market in the shares of the Trust. In particular, market makers who trade bitcoin and intend to make markets in the shares of the Trust will need to enter creation and redemption orders through Authorized Participants, including Authorized Participants who do not trade bitcoin. The ability for these market makers to enter creation and redemption orders through Authorized Participants will be facilitated by the ability of the Authorized Participants to enter creation and redemption orders on behalf of their market maker customers using cash, thereby ensuring an efficient and liquid market for the shares and expanding the pool of Authorized Participants that can be used by market makers to enter creation and redemption orders.

Based on the Sponsor's experience in the marketplace, few Authorized Participants are currently prepared to transact directly with bitcoin. In the near term, only a minority of Authorized Participants will agree to create and redeem shares of the Trust in kind. The facility for cash creation and redemption will promote greater involvement from a wider pool of Authorized Participants.

The Sponsor has had and continues to have discussions with Authorized Participants, and is in the midst of negotiating terms of its Authorized Participant Agreement with several Authorized

Participants. Some Authorized Participants with whom the Sponsor has engaged in discussions have indicated that providing the ability to create and redeem in cash enables trading activity which would otherwise be cumbersome or impossible if creation and redemption orders were limited solely to in-kind. Other Authorized Participants have expressed interest in mixed creation and redemption activity, with a portion in-kind and a portion using cash. Overall, it is clear that allowing cash creation and redemption will result in a more efficient and liquid market for the shares of the Trust.

8. Under the proposal, creation or redemption orders for the Fund would have to be submitted by 1:00 p.m. E.T. to be effected the same business day. The proposal also sets forth conditions under which the Fund's administrator may reject Basket purchase orders. One such condition would be "if the Sponsor thinks it is necessary or advisable for any reason, which the Sponsor determines is in the best interests of the Trust or shareholders." Similarly, the proposal states that the Fund's administrator "may, in its discretion, suspend the right of redemption or postpone the redemption settlement date (1) for any period during which an emergency exists as a result of which the redemption distribution is not reasonably practicable or (2) for such other period as the Sponsor determines to be necessary for the protection of the shareholders." What are commenters' views on the 1:00 p.m. cut-off for order submission and on the necessity and scope of the discretion to reject creation or redemption orders? Are these provisions likely to have an effect on the arbitrage mechanisms and, if so, how?

The Registration Statement will be amended to reflect a 3:00 p.m. E.T. cutoff time for same business day cash creation and redemption orders, and a 4:00 p.m. E.T. cutoff time for in-kind creation and redemption orders. These new cutoff times are more consistent with other physically backed exchange-traded products that hold commodities. Furthermore, the Trust believes that its stated conditions upon which a redemption order may be rejected are consistent with conditions imposed by other exchange-traded products and the Trust therefore does not anticipate any effect on the arbitrage mechanism as a result of those conditions.

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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