



March 23, 2018

Dalia Blass
Director
Division of Investment Management
U.S. Securities and Exchange Commission
100 F Street NE
Washington, DC 20549-1090

Re: Staff Letter: Engaging on Fund Innovation and Cryptocurrency-related Holdings (the “Staff Letter”)

Dear Ms. Blass:

Cboe Global Markets, Inc. (“Cboe”) commends the U.S. Securities and Exchange Commission (the “Commission”) and the Division of Investment Management (the “Division”) for clearly laying out potential concerns associated with cryptocurrency-related holdings in funds registered under the Investment Company Act of 1940 (“Cryptocurrency Funds”) in the Staff Letter. Cboe appreciates and understands the unique complexity and risks raised by the rise of cryptocurrencies as a global asset class. Cboe would like to take this opportunity to address certain of these concerns in an effort to further the discussion with a particular focus on exchange-listed Cryptocurrency Funds (“Cryptocurrency ETPs”).

As you know, Cboe operates four registered national securities exchanges in the U.S. for the trading of equity securities, one of which, Cboe BZX Exchange, Inc., (“Cboe Listings”) is a listing venue that currently lists 260 exchange-traded products (“ETPs”). Cboe is a leading exchange operator for the trading of ETPs, with its four equity exchanges accounting for 23.81% of the daily trading volume in ETPs.¹ Cboe Listings was the first national securities exchange to submit a proposal to list and trade an ETP that would hold bitcoin² and has since submitted three additional proposals to list and trade ETPs that would hold bitcoin futures.³

¹ Based on data from February 2018.

² Cboe Listings submitted a proposal to list and trade shares of the Winklevoss Bitcoin Trust on June 30, 2016. See Securities Exchange Act Release No. 78653 (July 8, 2016), 81 FR 45554 (July 14, 2016) (SR-BatsBZX-2016-30).

³ See Securities Exchange Act Release Nos. 82417 (December 28, 2017), 83 FR 570 (January 4, 2018) (SR-CboeBZX-2017-013); 82429 (January 2, 2018), 83 FR 929 (January 8, 2018) (SR-CboeBZX-2017-021); and 82484 (January 11, 2018), 83 FR 2704 (January



Additionally, Cboe Futures Exchange, LLC (“Cboe Futures Exchange”) was the first U.S. futures exchange to offer a bitcoin futures product for trading, as further discussed below. As such, Cboe is uniquely positioned to understand the issues associated with Cryptocurrency ETPs. While cryptocurrency-related holdings do raise a number of unique issues, Cboe firmly believes that such holdings do not require significant revision to the well-established frameworks for evaluation related to valuation, liquidity, custody, arbitrage, and manipulation. Rather, each Cryptocurrency Fund and underlying cryptocurrency-related holdings should be evaluated on a case by case basis in a manner very similar to previous funds and their underlying holdings.

History of Cryptocurrency

In 2008, a whitepaper attributed to Satoshi Nakamoto outlined the framework for a decentralized, peer-to-peer computer network (the “Bitcoin Network” or “Bitcoin”) that would allow parties to transact directly with each other relying on cryptographic proof instead of a trusted third party, thus introducing the modern understanding of cryptocurrency to the world. As introduced in the whitepaper, bitcoin is a digital asset based on the decentralized, open source protocol of the peer-to-peer Bitcoin computer network that governs the creation, movement, and ownership of bitcoin and hosts the decentralized public transaction ledger on which all bitcoin transactions are recorded. The first bitcoin was created in 2009 after the source code for the software and protocol for the Bitcoin Network was released.

Because of its innovative features as a digital asset, bitcoin has gained wide acceptance as a secure means of exchange in the commercial marketplace and has generated significant interest among investors. Since its creation, bitcoin has achieved significant market penetration, with thousands of merchants and businesses accepting it as a form of commercial payment, as well as receiving official recognition from several governments, including Japan and Australia. The end of 2017 brought continued momentum as the Bitcoin Network reached several high-water marks in December: more than \$5 billion in notional value of bitcoin transactions in a single day and more than \$70 billion in a month; more than 490,000 transactions in a single day; and the price reached greater than \$19,000 per bitcoin.⁴

In addition to its use as a means of exchange, the marketplace has grown to recognize that the scarcity of bitcoin – only 21,000,000 bitcoin will ever exist – potentially creates a store of

18, 2018) (SR-CboeBZX-2018-001). The Exchange notes that it subsequently withdrew the proposals in release nos. 82417 and 82429.

⁴ Source: data.bitcoinity.org.

value property. Similar to a commodity, there is a limited amount of bitcoin that can ever be produced, creating an eventually stable supply (or potentially decreasing supply, assuming some amount of bitcoin is irretrievably lost) that would prevent any inflationary effects from influencing the long-term price of bitcoin. It appears that investors worldwide are using bitcoin as a store of value as both a complement to or as a replacement for investments that previously would have been held in certain other hard commodities.

As investors have grown to treat bitcoin in a manner similar to traditional commodities, so too has the Commodity Futures Trading Commission (the “CFTC”). In September 2015, the CFTC determined that bitcoin is a commodity, as defined under the Commodity Exchange Act (the “CEA”).⁵ Although the CFTC only regulates the bitcoin spot market with respect to fraud and manipulation – in the same way that it regulates the spot market for gold, silver or other exempt commodities – it has full authority to oversee and enforce the CEA as it applies to trading in bitcoin derivatives.⁶ Further to this point, both Cboe Futures Exchange and Chicago Mercantile Exchange, Inc. (“CME”) self-certified bitcoin futures contracts with the CFTC and began offering trading in December 2017.⁷

⁵ Bitcoin is a commodity as defined in Section 1a(9) of the CEA. 7 U.S.C. § 1a(9). *See In re Coinflip, Inc.*, No. 15-29 (CFTC Sept. 17, 2015), *available at*: <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfcoinfliporder09172015.pdf>.

⁶ *See Coinflip. See also, In re BFXNA INC.*, where the CFTC found that Bitfinex had violated Section 4(a) of the CEA by engaging in off-exchange retail commodity transactions involving bitcoin. Further, the CFTC determined that Bitfinex had violated Section 4d(a) of the CEA by acting as a “futures commission merchant” with respect to retail commodity transactions involving bitcoin without registering with the CFTC. No. 16-19 (CFTC June 2, 2016), *available at* <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfbfxnaorder060216.pdf>. *See also, In re TeraExchange LLC*, where the CFTC found that Tera Exchange, a CFTC-registered swap execution facility, engaged in certain bitcoin swap transactions that constituted wash trading and prearranged trading in violation of Section 4c(a) of the CEA and related regulations. No. 15-33 (CFTC Sept. 24, 2015), *available at* <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfteraexchangeorder92415.pdf>.

⁷ Prior to listing a new commodity futures contract, a designated contract market must either submit a self-certification to the CFTC that the contract complies with the CEA and CFTC regulations or voluntarily submit the contract for CFTC approval. This



Since the advent of bitcoin, the underlying blockchain technology has given rise to additional cryptocurrencies that have, to varying degrees, copied or innovated on the technology as originally introduced. While bitcoin has been deemed to be a commodity under the CEA by the CFTC, regulatory uncertainty remains for other cryptocurrencies.⁸ As such, the analysis below attempts to answer certain of the questions from the Staff Letter by focusing on the current state of the bitcoin ecosystem, but Cboe believes that this framework can be replicated for other cryptocurrencies as regulatory clarity emerges and the ecosystem continues to grow.

Valuation

As highlighted in the Staff Letter, appropriate valuation of cryptocurrency-related assets will be of critical importance to Cryptocurrency ETPs, with valuation impacting the net asset value (“NAV”) calculation and all of the downstream processes that NAV potentially impacts including creation, redemption, and performance tracking. While there are certain attributes unique to cryptocurrency that need to be addressed by each Cryptocurrency ETP’s respective valuation policy such as forks and air drops,⁹ most valuation issues are either very similar or identical to those encountered in valuing other assets. Even forks and air drops can easily be accommodated for with proper policies and procedures in place, as has been done with the bitcoin futures contracts.

For bitcoin in particular, there are numerous robust indices that Cboe and other market participants have been tracking for years. Additionally, there is a significant amount of reliable price information available from the bitcoin futures market on Cboe Futures Exchange and CME. Finally, there is real-time trade data available 24 hours a day from a number of different trading platforms around the world, with a collective volume in the

process applies to all futures contracts and all commodities underlying the futures contracts, whether the new futures contracts are related to oil, gold, or any other commodity.

⁸ The Commission has appropriately made clear that issuing a token on a blockchain does not change the analysis under *Howey* in determining whether an asset is a security and whether such an offering must be registered with the Commission (or subject to an exemption). See Securities Exchange Act Release No. 81207 (July 25, 2017), The Report of Investigation Pursuant to Section 21(a) of the securities Exchange Act of 1934: The DAO, available at: <https://www.sec.gov/litigation/investreport/34-81207.pdf>.

⁹ Forks and air drops are commonly used methods for distributing tokens to the existing holders of a particular cryptocurrency.



billions of dollars daily. Between these various potential pricing sources, there is more than sufficient information for Cryptocurrency ETPs to create reliable and robust valuation methodologies for bitcoin and potentially for other cryptocurrencies.

Liquidity

Just as valuation of a cryptocurrency-related asset is of critical importance to Cryptocurrency ETPs, so is the liquidity of the underlying cryptocurrency-related asset. While there are certain aspects that differentiate cryptocurrency-related assets from more traditional assets, almost all of the issues related to liquidity are substantively identical to those of other commodities, including the spot, over-the-counter, and commodity futures markets. Liquidity evaluations for commodities have historically been and for cryptocurrency-related holdings should continue to be made on a case by case basis in a manner very similar to the analysis traditionally applied to other commodities. Looking specifically to bitcoin, the nascent futures markets are developing quickly and, while the current bitcoin futures trading volumes on Cboe Futures Exchange and CME may not currently be sufficient to support ETPs seeking 100% long or short exposure to bitcoin, Cboe expects these volumes to continue to grow and in the near future reach levels comparable to those of other commodity futures products at the time that they were included in ETPs. When volumes reach these levels, it is Cboe's view that Cryptocurrency ETPs should be permitted to use bitcoin futures contracts as a reference asset.

There are billions of dollars of bitcoin traded on cryptocurrency exchanges on a daily basis. In December, U.S.-based exchanges Gemini, Coinbase, and Kraken, had a combined average daily notional bitcoin volume of approximately \$950 million, with several days reaching more than \$2 billion traded. These numbers are up from an average daily notional volume of approximately \$165 million in October and \$410 million in November.¹⁰ As the volumes continue to grow, especially on regulated U.S. markets, the overall spot bitcoin market looks more and more like a traditional commodity market and Cboe continues to believe that the spot market is sufficiently liquid to support a bitcoin ETP.

Custody

For Cryptocurrency ETPs based on cash settled futures contracts, Cboe believes that there are no policy issues that would warrant disparate treatment between such futures contracts and other commodity futures contracts that are used in other ETPs. As such, a regulated AAA credit rated clearing house should be permitted to act as custodian for a Cryptocurrency ETP

¹⁰ Source: data.bitcoinity.org.



based on cash settled futures contracts. To the extent that a Cryptocurrency ETP plans to hold cryptocurrency directly, whether as fund holdings or for physical settlement of a futures contract, firms like Gemini Trust Company, LLC (“Gemini”) and a number of others are establishing themselves as regulated custodians offering custodial services. While the Staff Letter raises concerns regarding cybersecurity, Cboe is unaware of any instance in which the Commission has either articulated custodial standards or specifically evaluated the security of custody arrangements for a commodity-related ETP other than to rely on the standards applied by other regulators. For example, Cboe is unaware of any analysis performed regarding vault standards for gold storage prior to the approval of the various physical gold ETPs. While Cboe does agree that custody of cryptocurrency can raise unique security issues as compared to other commodities, we suggest that the Commission either rely on the determinations of other regulators (such as the New York State Department of Financial Services in the case of Gemini) or provide detailed standards for all custodial services for all asset types.

Arbitrage

Without clearly articulated concerns or standards related to Cryptocurrency ETPs, Cboe would encourage the Commission to treat cryptocurrency-related assets in the same manner that they have treated existing ETPs that hold commodities or the associated futures contracts. Based on a number of factors, including conversations with market makers and authorized participants, Cboe believes that the spot and over-the-counter bitcoin market could easily support the arbitrage mechanism for an ETP. The overlap between the participants in the U.S. equities markets and the cryptocurrency markets grows each day. The arbitrage mechanism for a bitcoin ETP would function identically to other commodity-related ETPs, providing market participants with strong economic incentive to take advantage of arbitrage opportunities in, thereby keeping the price of the ETP in line with the price of bitcoin.

Cboe would also like to note that there are price limits applicable to bitcoin futures on both Cboe Futures Exchange and CME that will prevent trading from occurring outside of certain price bands, but that trading would still continue within the price bands. As such, a volatility-based trading band would never fully stop trading in the futures market.

Manipulation and Other Risks

Cboe believes that a thorough evaluation of the manipulability of the market for an asset underlying an ETP, potential manipulation in the shares of the ETP, and the ability of regulators (including the listing venue and other self-regulatory organizations) to prevent,



identify, and take action against instances of manipulation is appropriate for all funds, cryptocurrency-related or otherwise. As it relates to a bitcoin ETP, Cboe believes that the arbitrage mechanism would function identically to other commodity-related ETPs, with market participants taking advantage of arbitrage opportunities in both the ETP and in bitcoin, thereby keeping the price of the ETP in line with the price of bitcoin and limiting the risk of manipulation shares of the ETP. The bitcoin marketplace has become so interconnected that manipulation of the price on any single venue would likely require manipulation of the entire bitcoin marketplace, rendering such manipulation cost-prohibitive. The presence of cross-market arbitrageurs also minimizes the risk of manipulation in both the broader bitcoin market and on individual bitcoin exchanges.

Cboe has undertaken significant measures to detect and prevent manipulation in the bitcoin futures market. In conjunction with offering bitcoin futures trading on Cboe Futures Exchange, Cboe has entered into a comprehensive surveillance sharing agreement that allows Cboe access to order and trade detail information for the purposes of conducting cross-market surveillance and regulation. Cboe has also actively engaged a number of other cryptocurrency exchanges to discuss surveillance sharing agreements. Cboe will incorporate the data available under these agreements into its surveillance procedures. Further, Cboe has implemented strict position limits requirements that are designed to prevent fraud and manipulation as well as excessive speculation.

The Staff Letter also raises the issue of whether Cryptocurrency Funds would be appropriate for all investors and how broker-dealers would analyze suitability of a particular product. First, we believe that Cryptocurrency Funds would NOT be appropriate for all investors. However, Cboe believes that comprehensive risk disclosure in the applicable regulatory documentation backstopped by rigorous broker-dealer evaluation of the suitability of a particular product for a client provides a sufficient framework for investor protection. While cryptocurrency-related holdings raise interesting and unique issues from a disclosure and investor protection perspective, Cboe does not believe that they are so much different as to warrant disparate treatment from other commodity-related funds. Cboe notes that investors currently have access to ETPs that track the price of sugar, corn, and even livestock, among other less traditional commodities that present similarly difficult questions about suitability and appropriateness for investors. Just as with these more obscure commodity-related ETPs, Cryptocurrency Funds may serve a purpose in a reasonably constructed investment portfolio while simultaneously not being appropriate for all investors. Applying the existing framework that would require Cryptocurrency Funds to disclose risks and broker-dealers to perform comprehensive analysis about the suitability of a particular product for their customers will



provide sufficient investor information and protection while allowing investors to gain exposure to cryptocurrency-related assets through well-regulated and transparent vehicles.

Cboe applauds the Commission for the measured approach that it has taken thus far related to cryptocurrency that has allowed room for innovation and served to place the United States at the forefront of the emerging cryptocurrency industry. While Cboe shares many of the concerns raised in the Staff Letter, we believe that the vast majority of these concerns can be addressed within the existing framework for commodity-related funds related to valuation, liquidity, custody, arbitrage, and manipulation. As the cryptocurrency markets and infrastructure continue to grow and mature, especially in the spot markets and regulated cryptocurrency derivatives markets, the more easily they will fit within this existing framework. Cboe encourages the Commission to approach Cryptocurrency ETPs holistically and from the same perspective that it has historically approached commodity-related ETPs: where exposure to the underlying reference asset could reasonably be included in an investment portfolio, an ETP would provide a more transparent and easily accessible vehicle for gaining such exposure, and the market and infrastructure for the underlying reference asset and its associated derivatives do not give rise to significant concerns in any of the five overarching issues raised in the Staff Letter, then the Commission should not stand in the way of such ETPs coming to market. This approach will allow investors to gain exposure to more mature cryptocurrencies through ETPs without the additional complications and risks of the spot market and help to ensure that American capital markets remain fertile ground for capital formation and financial innovation.

Cboe appreciates the opportunity to reply to the Staff Letter and welcomes the opportunity to provide the Commission with any additional information that it might find useful or to further discuss any of the issues raised herein.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Concannon".

Chris Concannon
President and COO