

March 26, 2022 Via e-mail: rule-comments@sec.gov

Vanessa Countryman, Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-0609

Re: Comments on File No. SR-NYSEArca-2021-90

Ms. Countryman,

According to its website, the U.S. Securities and Exchange Commission (“the Commission”) has a three-part mission¹ to:

- Protect investors;
- Maintain fair, orderly, and efficient markets; and
- Facilitate capital formation.

In 2017, when Grayscale Bitcoin Trust (BTC) (“GBTC”) made its first filing to convert into an ETP, I and several other academics from various universities submitted a letter stating that it was our firm belief that the approval of a Rule Change by the Commission allowing GBTC to list its shares on the NYSE Arca as a bona fide Exchange-Traded Product (“ETP”) would be consistent with the Commission’s commitment to achieving this mission.

Since that time, several key developments have emerged that make the beliefs I expressed in 2017 even stronger: (1) the Commission has allowed trading to commence for bitcoin futures exchange-traded funds (ETF) that provide exposure to CME-traded bitcoin futures, a decision I commend the Commission for taking, (2) several bitcoin ETPs in jurisdictions with robust securities laws frameworks, including Canada and Europe, have begun trading the underlying bitcoin (not the futures) without issues, (3) Bitcoin has grown to a \$800 billion asset class, with digital assets more broadly at \$2 trillion, and become a part of the wallet and investment portfolios of approximately 16%, or 40 million, adult Americans according to the White House,² and (4) GBTC has become an SEC reporting company³ and grown to become the largest publicly traded crypto asset fund in the world, with approximately \$30 billion in AUM,⁴ \$100’s million in daily trading volume,⁵ more than 850,000 investors,⁶ holding approximately 3.4% of all Bitcoins outstanding.

In the subsequent sections of this letter, I will provide the logic supporting my belief as to why the Commission should now approve GBTC to convert to an ETP.

Protect Investors

At the moment, investors are forced to take substantial, and in my view unnecessary risks, in order to gain exposure to bitcoin due to (1) the absence of a regulatory regime, (2) the absence of a regulated investment vehicle that can provide passive exposure to “physical” or “spot” bitcoin price movements as intended, resulting in (3) any U.S. investors who do seek bitcoin exposure through regulated investment vehicles to

¹ <https://www.investor.gov/introduction-investing/basics/role-sec>.

² White House, “Executive Order on Ensuring Responsible Development of Digital Assets,” (March 9, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/09/fact-sheet-president-biden-to-sign-executive-order-on-ensuring-responsible-innovation-in-digital-assets/>

³ Grayscale Bitcoin Trust Becomes SEC Reporting Company,” (January 21, 2021), <https://www.globenewswire.com/news-release/2020/01/21/1973013/0/en/Grayscale-Bitcoin-Trust-Becomes-SEC-Reporting-Company.html>

⁴ <https://grayscale.com/products/grayscale-bitcoin-trust/>.

⁵ <https://www.otcmartets.com/stock/GBTC/overview>.

⁶ Based on Broadridge Financial Solutions, Inc. analysis of Grayscale Bitcoin Trust (Symbol: GBTC) as of March 9, 2022.

be forced into a riskier futures-based product simply because it's the only one that exists. These items are interrelated.

To date, the Commission has repeatedly stated in its disapproval orders related to proposals to list shares of various spot bitcoin ETPs, that it has not found such proposals to be consistent with Section 5(b)(5) of the Exchange Act, which requires, among other things, that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices to protect investors and the public interest.⁷ While disapproval of a Rule Change on this basis may have protected investors in prior bitcoin ETP proposals, it ignores an important fact: GBTC is already available for trading on the OTCQX market by anyone with a brokerage account at a substantial discount to its net asset value. Since GBTC first began trading on the OTCQX market on May 4, 2015, the top tier of three marketplaces for trading over-the-counter securities, it has traded at an average premium of 37%, maximum premium of 142%, average discount of 13%, and maximum discount of 21%.⁸ As of December 31, 2021, GBTC was trading at a discount of 20%. In its current form, GBTC is not able to most optimally meet its investment objective due to the Commission's reluctance to permit it to convert to an ETP.

It is our belief that investors will continue to demand and obtain bitcoin exposure for a variety of legitimate reasons. However, they will be forced to do so through inefficient product structures (such as GBTC in its current form), riskier CME-futures based bitcoin ETFs (where contracts need to be rolled and investors bear that cost), or by going directly to the bitcoin market, which can be a challenging experience without the regulated, secure and SOC-reporting qualified custodianship like that offered by GBTC.⁹ I believe allowing investors to access bitcoin in these manners is inconsistent with the Commission's mission to protect investors. I am requesting that the Commission hold the sponsor of GBTC to a higher standard by approving the proposed Rule Change and granting Regulation M relief to allow GBTC to convert to an ETP structure.¹⁰ As an ETP, GBTC would allow investors to passively gain exposure to the bitcoin market price at net asset value, through a reliable and secure investment vehicle.

As noted above, since 2017, the Commission has also allowed trading to commence for bitcoin futures

⁷ See Order Setting Aside Action by Delegated Authority and Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, To List and Trade Shares of the Winklevoss Bitcoin Trust, Securities Exchange Act Release No. 83723 (July 26, 2018), 83 FR 37579 (Aug. 1, 2018) (SR-BatsBZX-2016-30) ("Winklevoss Order"); Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, To Amend NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares) and To List and Trade Shares of the United States Bitcoin and Treasury Investment Trust Under NYSE Arca Rule 8.201-E, Securities Exchange Act Release No. 88284 (Feb. 26, 2020), 85 FR 12595 (Mar. 3, 2020) (SR-NYSEArca-2019-39) ("USBT Order"); Order Disapproving a Proposed Rule Change To List and Trade Shares of the WisdomTree Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93700 (Dec. 1, 2021), 86 FR 69322 (Dec. 7, 2021) (SR-CboeBZX-2021-024) ("WisdomTree Order"); Order Disapproving a Proposed Rule Change to List and Trade Shares of the Valkyrie Bitcoin Fund under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares), Securities Exchange Act Release No. 93859 (Dec. 22, 2021), 86 FR 74156 (Dec. 29, 2021) (SR-NYSEArca-2021-31) ("Valkyrie Order"); Order Disapproving a Proposed Rule Change to List and Trade Shares of the Kryptoin Bitcoin ETF Trust under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93860 (Dec. 22, 2021), 86 FR 74166 (Dec. 29, 2021) (SR-CboeBZX-2021-029) ("Kryptoin Order"); Order Disapproving a Proposed Rule Change to List and Trade Shares of the First Trust SkyBridge Bitcoin ETF Trust under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares), Securities Exchange Act Release No. 94006 (Jan. 20, 2022), 87 FR 3869 (Jan. 25, 2022) (SR-NYSEArca-2021-37) ("SkyBridge Order"); and Order Disapproving a Proposed Rule Change to List and Trade Shares of the Wise Origin Bitcoin Trust under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 94080 (Jan. 27, 2022), 87 FR 5527 (Feb. 1, 2022) (SR-CboeBZX-2021-039) ("Wise Origin Order"). See also Order Disapproving a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the SolidX Bitcoin Trust Under NYSE Arca Equities Rule 8.201, Securities Exchange Act Release No. 80319 (Mar. 28, 2017), 82 FR 16247 (Apr. 3, 2017) (SR-NYSEArca-2016-101) ("SolidX Order"). The Commission also notes that orders were issued by delegated authority on the following matters: Order Disapproving a Proposed Rule Change To List and Trade the Shares of the ProShares Bitcoin ETF and the ProShares Short Bitcoin ETF, Securities Exchange Act Release No. 83904 (Aug. 22, 2018), 83 FR 43934 (Aug. 28, 2018) (SR-NYSEArca-2017-139) ("ProShares Order"); Order Disapproving a Proposed Rule Change To List and Trade the Shares of the GraniteShares Bitcoin ETF and the GraniteShares Short Bitcoin ETF, Securities Exchange Act Release No. 83913 (Aug. 22, 2018), 83 FR 43923 (Aug. 28, 2018) (SR-CboeBZX-2018-001) ("GraniteShares Order"); Order Disapproving a Proposed Rule Change To List and Trade Shares of the VanEck Bitcoin Trust Under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, Securities Exchange Act Release No. 93559 (Nov. 12, 2021), 86 FR 64539 (Nov. 18, 2021) (SR-CboeBZX-2021-019) ("VanEck Order"); Order Disapproving a Proposed Rule Change to List and Trade Shares of the NYDIG Bitcoin ETF under NYSE Arca Rule 8.201-E (Commodity-Based Trust Shares) ("NYDIG Order").

⁸ GBTC Annual Report on Form 10-K for the year ended December 31, 2021.

⁹ See GBTC 10-K sections entitled "The Custodian" and "Custody of the Trust's Bitcoins."

¹⁰ Notably, since 2017, GBTC has voluntarily sought SEC reporting status to further enhance reporting and transparency, and thus investor protections.

ETFs. However, I do not understand why the Commission does not now allow trading of ETPs, like what GBTC is seeking to convert to, that provide exposure to actual bitcoin. CME-futures based bitcoin ETFs are potentially more volatile than a bitcoin spot ETP and may impose substantially higher fees on investors due the premium at which bitcoin futures typically trade, as well as the cost of rolling futures contracts each month.

For instance, according to Bloomberg ETF analysts prior to such approvals: “Bitcoin futures ETFs, if approved by the SEC, could cost investors 5-10 percentage points in annual returns by rolling contracts from one month to the next..., potentially limiting their appeal... Unlike a physically backed bitcoin ETF, one that tracks futures must constantly buy and sell them to maintain exposure. The associated roll costs can vary widely, adding significant costs to a bitcoin futures ETF, on top of a likely 1% expense ratio. Bitcoin's roll costs have averaged 10-11 percentage points of return annually, but that jumped to 45 points in the past 12 months due to upside volatility. Roll costs normally may be closer to 5 points a year.” While futures-based ETFs may be more advantageous for “soft” commodities like oil and corn due to storage issues, this is not necessarily the case for “hard” commodities like gold, or bitcoin. These same analysts conclude stating “We believe the SEC should approve physically backed bitcoin ETFs, thereby avoiding futures related costs.”¹¹

Given that in the context of portfolio construction, bitcoin provides exposure to growth opportunities and real-world applications that are not directly or easily captured by traditional asset classes and currencies, if the Commission is comfortable with bitcoin futures ETFs, then it must also be comfortable with bitcoin spot ETPs like what GBTC is seeking to convert to. American investors should be given the opportunity to invest in this historically uncorrelated, diversifying asset that may play an important role in helping them build more efficient portfolios.¹²

Maintain Fair, Orderly, and Efficient Markets

In addition to my view that an ETP structure is a superior way for investors to efficiently gain exposure to the price movements of bitcoins versus the mechanisms currently available to them, the sponsor of GBTC employs further measures designed to protect investors from manipulation and ensure a fair, orderly, and efficient market.

The Sponsor utilizes the Coindesk XBX Index (the “Index”), which is a U.S. dollar-denominated composite reference rate for the price of bitcoin. The Index is designed to (i) mitigate the effects of fraud, manipulation and other anomalous trading activity from impacting the bitcoin reference rate, (ii) provide a real-time, volume-weighted fair value of bitcoin and (iii) appropriately handle and adjust for non-market related events.

Constituent Exchange Selection

According to GBTC’s Annual Report, the spot bitcoin exchanges that are included in the Index are selected by the Index Provider utilizing a methodology that is guided by the International Organization of Securities Commissions (“IOSCO”) principles for financial benchmarks. For an exchange to become a spot bitcoin exchange included in the Index (a “Constituent Exchange”), it must satisfy the criteria listed below (the “Inclusion Criteria”):

- Compliance with applicable U.S. federal and state licensing requirements and practices regarding anti-money laundering (“AML”) and know-your-customer (“KYC”) regulations;
- Publicly known ownership;

¹¹ Eric Balchunas and James Seyffart, “SEC Spurning Ethereum Bolsters Bitcoin Prospects”, Bloomberg Intelligence (Aug. 24, 2021).

¹² Don’t Forget Diversification, Gary Sanger, PhD, CFA. April 11, 2014. <https://blogs.cfainstitute.org/investor/2014/04/11/diversification/>

- No restrictions on deposits and/or withdrawals of bitcoin;
- No restrictions on deposits and/or withdrawals of U.S. dollars;
- Reliably displays new trade prices and volumes on a real-time basis through APIs;
- Programmatic trading¹³ of the bitcoin/U.S. dollar spot price;
- Liquid market in the bitcoin/U.S. dollar spot price;
- Trading volume must represent a minimum of total bitcoin/U.S. dollar trading volumes (5% for U.S. exchanges and 10% non-U.S. exchanges); and
- Discretion of the Index Provider's analysts¹⁴

Determination of the Index Price

The Index applies an algorithm to the 24-hour volume-weighted average price of bitcoin on the Constituent Exchanges calculated on a per second basis. The Index's algorithm is expected to reflect a four-pronged methodology to calculate the Index Price from the Constituent Exchanges:

- **Volume Weighting:** Constituent Exchanges with greater liquidity receive a higher weighting in the Index Price, increasing the ability to execute against (i.e., replicate) the Index in the underlying spot markets.
- **Price-Variance Weighting:** The Index Price reflects data points that are discretely weighted in proportion to their variance from the rest of the other Constituent Exchanges. As the price at a particular exchange diverges from the prices at the rest of the Constituent Exchanges, its weight in the Index Price consequently decreases.
- **Inactivity Adjustment:** The Index Price algorithm penalizes stale activity from any given Constituent Exchange. When a Constituent Exchange does not have recent trading data, its weighting in the Index Price is gradually reduced until it is de-weighted entirely. Similarly, once trading activity at a Constituent Exchange resumes, the corresponding weighting for that Constituent Exchange is gradually increased until it reaches the appropriate level.
- **Manipulation Resistance:** In order to mitigate the effects of wash trading and order book spoofing, the Index Price only includes executed trades in its calculation. Additionally, the Index Price only includes Constituent Exchanges that charge trading fees to its users in order to attach a real, quantifiable cost to any manipulation attempts.

Furthermore, the Index Provider has published empirical evidence identifying a number of cases in which the aforementioned Index methodology has successfully shielded the Index from anomalous or manipulative pricing.¹⁵ It is my view that this is the highest quality benchmark being used in a bitcoin ETP proposal and one that can substantially mitigate price manipulation to ensure a fair, orderly, and efficient market.

Second, the sponsor has developed thorough creation and redemption procedures for their proposed ETP. These procedures minimize the likelihood that large blocks of bitcoins will need to be purchased or

¹³ Exchanges with programmatic trading offer traders an application programming interface that permits trading by sending programmed commands to the exchange.

¹⁴ This includes additional due diligence conducted by the Index Provider's analysts.

¹⁵ <https://tradeblock.com/blog/analysis-of-bitfinex-anomalies-and-xbx-performance> <https://tradeblock.com/blog/bitfinex-flash-crash-analysis> <https://tradeblock.com/blog/xbx-update-adding-okcoin-removing-btc-e-and-btcchina> <https://tradeblock.com/blog/xbx-update-adding-coinbase-removing-kraken> <https://tradeblock.com/blog/xbx-index-update-removing-okcoin> <https://tradeblock.com/blog/updates-to-tradeblocks-ecx-and-xbx-indices-2> <https://tradeblock.com/blog/bitfinex-bitcoin-premium-reaches-widest-level-in-two-years> <https://tradeblock.com/blog/bitcoin-futures-flash-crash-occurs-as-exchanges-show-irregular-trading-activity> <https://tradeblock.com/blog/updates-to-all-tradeblock-indices>.

redeemed during predictable times throughout the trading day.¹⁶

Moreover, financial derivatives, including ETPs, can generally serve to enhance the liquidity and efficiency of the markets for many asset classes and currencies, including bitcoins. Price discovery, and in turn market efficiency, is sensitive to factors such as numbers of buyers and sellers, number of recent sales or purchases, current bids and offers, availability of capital, cost of execution, and cost, availability and transparency of pricing information on trusted execution venues, amongst others. It is difficult to imagine a scenario in which approval of GBTC as a bona fide ETP on the NYSE Arca would not increase the number of market participants, dollar-denominated liquidity, and other competitive forces that would lead to more efficient price discovery than currently exists in a semi-fragmented, global bitcoin spot market that lacks a regulated, centralized trading venue or order book.

We urge the Commission to be part of the solution to further protect investors and maintain a fair, orderly, and efficient Bitcoin market.

Facilitate Capital Formation

Finally, as an ETP on the NYSE Arca, GBTC would continue to serve as a liquid, but even more regulated conduit for capital formation within the bitcoin ecosystem, enhancing the growth and development of this transformative technology as well as the applications built on top of it. If the White House's recent Executive Order showed anything, it's the US government's commitment to ensuring America leads in this next wave of innovation. GBTC conversion to an ETP will support these efforts by increasing access and exposure to Bitcoin and further bringing it into the regulatory perimeter.

I request that the Commission consider the approval of a Rule Change allowing the GBTC to list its shares on the NYSE Arca within the context of the fundamental reasons outlined in this letter, that I believe are broadly consistent with the Commission's mission. I thank the Commission for considering my request and I am happy to speak further on the subject matter of this letter.

Sincerely,



Campbell R. Harvey, Professor of Finance, Fuqua School of Business, Duke University

¹⁶ SR-NYSEArca-2021-90