



**Martha Redding**  
Associate General Counsel  
Assistant Secretary

New York Stock Exchange  
11 Wall Street  
New York, NY 10005

April 6, 2017

**VIA E-MAIL**

Brent J. Fields  
Secretary  
Securities and Exchange Commission  
100 F Street, N.E.  
Washington, DC 20549-1090

Re: SEC Release No. 34-80297 (SR-NYSEArca-2017-06)

Dear Mr. Fields:

NYSE Arca, Inc. filed the attached Amendment No. 1 to the above-referenced filing on April 6, 2017.

Sincerely,

A handwritten signature in blue ink, appearing to be "MJ", written in a cursive style.

Encl. (Amendment No. 1 to SR-NYSEArca-2017-06)

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * 97	SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4		File No.* SR - 2017 - * 06	Amendment No. (req. for Amendments *) 1
Filing by NYSE Arca, Inc. Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934				
Initial * <input type="checkbox"/>	Amendment * <input checked="" type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input checked="" type="checkbox"/>	Section 19(b)(3)(A) * <input type="checkbox"/>
			Section 19(b)(3)(B) * <input type="checkbox"/>	
			Rule	
Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>	<input type="checkbox"/> 19b-4(f)(1) <input type="checkbox"/> 19b-4(f)(2) <input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(4) <input type="checkbox"/> 19b-4(f)(5) <input type="checkbox"/> 19b-4(f)(6)
Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010			Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934	
Section 806(e)(1) * <input type="checkbox"/>		Section 806(e)(2) * <input type="checkbox"/>	Section 3C(b)(2) * <input type="checkbox"/>	
Exhibit 2 Sent As Paper Document <input type="checkbox"/>		Exhibit 3 Sent As Paper Document <input type="checkbox"/>		
<b>Description</b>				
Provide a brief description of the action (limit 250 characters, required when Initial is checked *).				
<input type="text" value="Proposal relating to the listing and trading shares of the Biotin Investment Trust under NYSE Arca Equities Rule 8.201"/>				
<b>Contact Information</b>				
Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.				
First Name *	<input type="text" value="Kevin"/>	Last Name *	<input type="text" value="Lee"/>	
Title *	<input type="text" value="Counsel NYSE Group Inc"/>			
E-mail *	<input type="text" value="[REDACTED]"/>			
Telephone *	<input type="text" value="[REDACTED]"/>	Fax	<input type="text" value="[REDACTED]"/>	
<b>Signature</b>				
Pursuant to the requirements of the Securities Exchange Act of 1934,				
has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.				
(Title *)				
Date	<input type="text" value="01/25/2017"/>	<input type="text" value="Associate General Counsel"/>		
By	<input type="text" value="Clare Saperstein"/>	<input type="text" value="Clare Saperstein"/>		
(Name *)				
NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.				
<input type="button" value="Clare Saperstein"/>				

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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

**Form 19b-4 Information \***

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

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Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of the Proposed Rule Change

- (a) Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934, as amended (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> NYSE Arca, Inc. (“NYSE Arca” or “Exchange”), through its wholly-owned subsidiary NYSE Arca Equities, Inc. (“NYSE Arca Equities” or “Corporation”), proposes to list and trade shares of the following under NYSE Arca Equities Rule 8.201: Bitcoin Investment Trust (“Trust”).

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

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

2. Procedures of the Self-Regulatory Organization

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

The person on the Exchange staff prepared to respond to questions and comments on the proposed rule change is:

Kevin B. Lee  
Counsel  
NYSE Group, Inc.



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

- (a) Purpose

Under NYSE Arca Equities Rule 8.201, the Exchange may propose to list and/or trade pursuant to unlisted trading privileges (“UTP”) “Commodity-Based Trust

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

Shares.”<sup>3</sup> The Exchange proposes to list and trade shares (“Shares”) of the Trust pursuant to NYSE Arca Equities Rule 8.201.<sup>4</sup>

The sponsor of the Trust is Grayscale Investments, LLC (“Sponsor”), a Delaware limited liability company. The Sponsor is a wholly-owned subsidiary of Digital Currency Group, Inc. (“Digital Currency Group”). The trustee for the Trust is Delaware Trust Company (“Trustee”). The Bank of New York Mellon will be the Trust’s transfer agent (in such capacity, “Transfer Agent”) and the administrator of the Trust (in such capacity, “Administrator”). Xapo Inc. is the custodian for the Trust (“Custodian”).<sup>5</sup> ALPS Portfolio Solutions Distributor, Inc. will be the marketing agent for the Trust (“Marketing Agent”).

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<sup>3</sup> Commodity-Based Trust Shares are securities issued by a trust that represent investors’ discrete identifiable and undivided beneficial ownership interest in the commodities deposited into the Trust.

<sup>4</sup> On March 24, 2017, the Trust filed Amendment No. 1 to its registration statement (“Registration Statement”) on Form S-1 under the Securities Act of 1933 (15 U.S.C. 77a) (File No. 333-215627). The descriptions of the Trust, the Shares and bitcoin contained herein are based, in part, on the Registration Statement.

This Amendment No. 1 to SR-NYSEArca-2017-06 replaces SR-NYSEArca-2017-06 as originally filed and supersedes such filing in its entirety.

On March 4, 2016, the Trust submitted to the Commission an amended Form D as a business trust. Shares of the Trust have been quoted on OTC Market’s OTCQX Best Marketplace under the symbol “GBTC” since March 26, 2015. On November 11, 2016, the Trust also published a quarterly report for GBTC for the period ended September 30, 2016, which can be found on OTC Market’s website: <http://www.otcm Markets.com/stock/GBTC/filings>. The Shares will be of the same class and will have the same rights as shares of GBTC. Effective October 28, 2014, the Trust suspended its redemption program for shares of GBTC, in which shareholders were permitted to request the redemption of their shares through Genesis Global Trading, Inc. (formerly known as SecondMarket, Inc.), an affiliate of the Sponsor and the Trust (“Genesis”). According to the Sponsor, freely tradeable shares of GBTC will remain unregistered freely tradeable Shares on the date of the listing of the Shares unless, if authorized by the Trust, holders of GBTC sell the shares in the initial public offering. Restricted shares of GBTC will remain subject to private placement restrictions and the holders of such restricted shares may either (i) continue to hold those shares subject to those restrictions or (ii) if authorized by the Trust, sell the restricted shares in the initial public offering.

<sup>5</sup> According to the Registration Statement, Digital Currency Group owns a minority interest in the Custodian that represents less than 1.0% of the Custodian’s equity.

The Trust is a Delaware statutory trust, organized on September 13, 2013, that operates pursuant to a trust agreement between the Sponsor and the Trustee. The Trust has no fixed termination date.

According to the Registration Statement, each Share will represent a proportional interest, based on the total number of Shares outstanding, in the bitcoins held by the Trust, less the Trust's liabilities, which include accrued but unpaid fees and expenses. The Trust's assets will consist solely of bitcoins held on the Trust's behalf by the Custodian. The Trust has not had a cash balance at any time since inception. When selling bitcoins to pay expenses, the Sponsor will endeavor to sell the exact number of bitcoins needed to pay expenses in order to minimize the Trust's holdings of assets other than bitcoin. As a consequence, the Trust expects that it will not record any cash flow from its operations and that its cash balance will be zero at the end of each reporting period.

The activities of the Trust will be limited to (i) issuing "Baskets" (as defined below) in exchange for bitcoins deposited by the "Authorized Participants" (as defined below) or "Liquidity Providers" (as defined below), as applicable, with the Custodian as consideration, (ii) transferring actual bitcoins as necessary to cover the Sponsor's management fee and selling bitcoins as necessary to pay certain other fees that are not contractually assumed by the Sponsor, (iii) transferring actual bitcoins in exchange for Baskets surrendered for redemption by the Authorized Participants, (iv) causing the Sponsor to sell bitcoins on the termination of the Trust and (v) engaging in all administrative and custodial procedures necessary to accomplish such activities in accordance with the provisions of applicable agreements. The Trust is not actively managed. It will not engage in any activities designed to obtain a profit from, or to ameliorate losses caused by, changes in the market price of bitcoins.

According to the Registration Statement, the Trust is neither an investment company registered under the Investment Company Act of 1940, as amended, ("1940 Act")<sup>6</sup> nor a commodity pool for purposes of the Commodity Exchange Act,<sup>7</sup> and neither the Sponsor nor the Trustee is subject to regulation as a commodity pool operator or a commodity trading adviser in connection with the Shares.

### **Investment Objective**

According to the Registration Statement, and as further described below, the investment objective of the Trust will be for the Shares to reflect the performance

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<sup>6</sup> 15 U.S.C. 80a-1.

<sup>7</sup> 17 U.S.C. 1.

of the value of a bitcoin as represented by the TradeBlock XBX Index (“Index”),<sup>8</sup> less the Trust’s liabilities and expenses.

The Shares are designed to provide investors with a cost-effective and convenient way to invest in bitcoin. A substantial direct investment in bitcoins may require expensive and sometimes complicated arrangements in connection with the acquisition, security and safekeeping of the bitcoins and may involve the payment of substantial fees to acquire such bitcoins from third-party facilitators through cash payments of U.S. dollars. Although the Shares will not be the exact equivalent of a direct investment in bitcoins, they will provide investors with an alternative that constitutes a relatively cost-effective way to participate in bitcoin markets through the securities market.

### **Overview of the Bitcoin Industry and Market**

The following is a brief introduction to the bitcoin industry and the bitcoin market based on information provided in the Registration Statement.

#### The Bitcoin Network

A bitcoin is a decentralized digital currency that is issued by, and transmitted through, an open-source digital protocol platform using cryptographic security that is known as the “Bitcoin Network.” The Bitcoin Network is an online, peer-to-peer user network that hosts a public transaction ledger, known as the “Blockchain,” and the source code that comprises the basis for the cryptography and digital protocols governing the Bitcoin Network. No single entity owns or operates the Bitcoin Network, the infrastructure of which is collectively maintained by a decentralized user base. Bitcoins can be used to pay for goods and services or can be converted to fiat currencies, such as the U.S. dollar, at rates determined on electronic marketplaces where exchange participants may first use fiat currency to trade, buy and sell bitcoins based on bid-ask trading (“Bitcoin Exchanges”) or in individual end-user-to-end-user transactions under a barter system.

The Blockchain is comprised of a digital file, downloaded and stored, in whole or in part, on all bitcoin users’ software programs. The file includes all “blocks” that have been solved by miners and is updated to include new blocks as they are solved. As each newly solved block refers back to and “connects” with the immediately prior solved block, the addition of a new block adds to the

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<sup>8</sup> The Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin based on the volume-weighted price at trading venues selected by TradeBlock, Inc. (“Index Provider”). According to the Registration Statement, Digital Currency Group, Inc. owns approximately 2.4% of the Index Provider’s voting equity and warrants representing approximately 1.4% of the Index Provider’s voting equity. See “Bitcoin Index Price” below.

Blockchain in a manner similar to a new link being added to a chain. Because each new block records outstanding bitcoin transactions, and outstanding transactions are settled and validated through such recording, the Blockchain represents a complete, transparent and unbroken history of all transactions on the Bitcoin Network.

Bitcoins are “stored” or reflected on the Blockchain. The Blockchain records the transaction history of all bitcoins in existence and, through the transparent reporting of transactions, allows the Bitcoin Network to verify the association of each bitcoin with the digital wallet that owns them. The Bitcoin Network and bitcoin software programs can interpret the Blockchain to determine the exact bitcoin balance of any digital wallet listed in the Blockchain as having taken part in a transaction on the Bitcoin Network.

In order to own, transfer or use bitcoins, a person generally must have internet access to connect to the Bitcoin Network. Bitcoin transactions between parties occur rapidly (typically between a few seconds and a few minutes) and may be made directly between end-users without the need for a third-party intermediary, although there are entities that provide third-party intermediary services. To prevent the possibility of double-spending a single bitcoin, each transaction is recorded, time stamped and publicly displayed in a block in the publicly available Blockchain. Thus, the Bitcoin Network provides confirmation against double-spending by memorializing every transaction in the Blockchain, which is publicly accessible and downloaded in part or in whole by all users’ Bitcoin Network software programs as described above.

The Bitcoin Network is decentralized and does not rely on either governmental authorities or financial institutions to create, transmit or determine the value of bitcoins. Rather, bitcoins are created and allocated by the Bitcoin Network protocol through a “mining” process subject to a strict, well-known issuance schedule. The value of bitcoins is determined by the supply of and demand for bitcoins in the bitcoin exchange market (and in private end-user-to-end-user transactions), as well as the number of merchants that accept them. As bitcoin transactions can be broadcast to the Bitcoin Network by any user’s bitcoin software and bitcoins can be transferred without the involvement of intermediaries or third parties, there are little or no transaction costs in direct peer-to-peer transactions on the Bitcoin Network. Third-party service providers such as Bitcoin Exchanges and bitcoin third-party payment processing services may charge significant fees for processing transactions and for converting, or facilitating the conversion of, bitcoins to or from fiat currency.

“Off-Blockchain transactions” involve the transfer of control over, or ownership of, a specific digital wallet holding bitcoins, or of the reallocation of ownership of certain bitcoins in a pooled-ownership digital wallet, such as a digital wallet owned by a Bitcoin Exchange. Off-Blockchain transactions are not truly bitcoin transactions in that they do not involve the transfer of transaction data on the Bitcoin Network and do not reflect a movement of bitcoins between addresses

recorded in the Blockchain. Information and data regarding Off-Blockchain transactions are generally not publicly available in contrast to “true” bitcoin transactions, which are publicly recorded on the Blockchain. Off-Blockchain transactions are subject to risks as any such transfer of bitcoin ownership is not protected by the protocol behind the Bitcoin Network or recorded in and validated through the Blockchain mechanism.

### Overview of Bitcoin Transactions

Prior to engaging in bitcoin transactions, a user must first obtain a digital bitcoin “wallet” (analogous to a bitcoin account) in which to store bitcoins. A wallet can be obtained, among other ways, through an open-source software program that generates bitcoin addresses and enables users to engage in the transfer of bitcoins with other users. A user may install a bitcoin software program on a computer or mobile device that will generate a bitcoin wallet or, alternatively, a user may retain a third party to create a digital wallet to be used for the same purpose. There is no limit on the number of digital wallets a user can have, and each such wallet includes one or more unique addresses and a verification system for each address consisting of a “public key” and a “private key,” which are mathematically related.

In a typical bitcoin transaction, the bitcoin recipient must provide the spending party with the recipient’s digital wallet address, an identifying series of 27 to 34 alphanumeric characters that represents the wallet’s routing number on the Bitcoin Network and allows the Blockchain to record the sending of bitcoins to the recipient’s wallet. The receiving party can provide this address to the spending party in alphanumeric format or an encoded format such as a Quick Response Code (commonly known as a QR Code), which may be scanned by a smartphone or other device to quickly transmit the information. This activity is analogous to a recipient providing an address in wire instructions to the payor so that cash may be wired to the recipient’s account.

After the provision of the receiving wallet’s digital address, the spending party must enter the address into its bitcoin software program along with the number of bitcoins to be sent. The number of bitcoins to be sent will typically be agreed upon between the two parties based on a set number of bitcoins or an agreed upon conversion of the value of fiat currency to bitcoins. Most bitcoin software programs also allow, and often suggest, the payment of a transaction fee (also known as a miner’s fee). Transaction fees are not required to be included by many bitcoin software programs, but, when they are included, they are paid by the spending party on top of the specified amount of bitcoins being sent in the transaction. Transaction fees, if any, are typically a fractional number of bitcoins (for example, 0.005 or 0.0005 bitcoins) and are automatically transferred by the Bitcoin Network to the bitcoin miner that solves and adds the block recording the spending transaction on the Blockchain.

After the entry of the receiving wallet's address, the number of bitcoins to be sent and the transaction fees, if any, to be paid, the spending party will transmit the spending transaction. The transmission of the spending transaction results in the creation of a data packet by the spending party's bitcoin software program. The data packet includes data showing (i) the receiving wallet's address, (ii) the number of bitcoins being sent, (iii) the transaction fees, if any, and (iv) the spending party's digital signature, verifying the authenticity of the transaction. The data packet also includes references called "inputs" and "outputs," which are used by the Blockchain to identify the source of the bitcoins being spent and record the flow of bitcoins from one transaction to the next transaction in which the bitcoins are spent. The digital signature exposes the spending party's digital wallet address and public key to the Bitcoin Network, though, for the receiving party, only its digital wallet address is revealed. The spending party's bitcoin software will transmit the data packet onto the decentralized Bitcoin Network, resulting in the propagation of the information among the software programs of bitcoin users across the Bitcoin Network for eventual inclusion in the Blockchain. Typically, the data will spread to a vast majority of bitcoin miners within the course of less than one minute.

Bitcoin miners record transactions when they solve for and add blocks of information to the Blockchain. When a miner solves for a block, it creates that block, which includes data relating to (i) the solution to the block, (ii) a reference to the prior block in the Blockchain to which the new block is being added and (iii) all transactions that have occurred but have not yet been added to the Blockchain. The miner becomes aware of outstanding, unrecorded transactions through the data packet transmission and propagation discussed above. Typically, bitcoin transactions will be recorded in the next chronological block if the spending party has an internet connection and at least one minute has passed between the transaction's data packet transmission and the solution of the next block. If a transaction is not recorded in the next chronological block, it is usually recorded in the next block thereafter.

Bitcoin transactions that are micropayments (typically, less than 0.01 bitcoins) and that do not include transaction fees to miners are currently deprioritized for recording, meaning that, depending on bitcoin miner policies, these transactions may take longer to record than typical transactions if the transactions do not include a transaction fee. Additionally, transactions initiated by spending wallets with poor connections to the Bitcoin Network (i.e., few or poor quality connections to nodes or "supernodes" that relay transaction data) may be delayed in the propagation of their transaction data and, therefore, transaction recording on the Blockchain. Finally, to the extent that a miner chooses to limit the transactions it includes in a solved block (whether by the payment of transaction fees or otherwise), a transaction not meeting that miner's criteria will not be included.

To the extent that a transaction has not yet been recorded, there is a greater chance that the spending wallet can double-spend the bitcoins sent in the original

transaction. If the next block solved is by an honest miner not involved in the attempt to double-spend bitcoin and if the transaction data for both the original and double-spend transactions have been propagated onto the Bitcoin Network, the transaction that is received with the earlier time stamp will be recorded by the solving miner, regardless of whether the double-spending transaction includes a larger transaction fee. If the double-spend transaction propagates to the solving miner and the original transaction has not, then the double-spending has a greater chance of success. As a result of the high difficulty in successfully initiating a double-spend without the assistance of a coordinated attack, the probability of success for a double-spend transaction attempt is limited.

Upon the addition of a block included in the Blockchain, the bitcoin software program of both the spending party and the receiving party will show confirmation of the transaction on the Blockchain and reflect an adjustment to the bitcoin balance in each party's digital wallet, completing the bitcoin transaction. Typically, bitcoin software programs will automatically check for and display additional confirmations of six or more blocks in the Blockchain.

To ensure the integrity of bitcoin transactions from the recipient's side (i.e., to prevent double-spending by a payor), every bitcoin transaction is broadcast to the Bitcoin Network and recorded in the Blockchain through the mining process, which time-stamps the transaction and memorializes the change in the ownership of the bitcoin(s) transferred. Adding a block to the Blockchain requires bitcoin miners to exert significant computational effort to verify it is a valid transaction. According to the Registration Statement, requiring this computational effort, or "proof of work," prevents a malicious actor from either adding fraudulent blocks to generate bitcoins (i.e., counterfeit bitcoins) or overwriting existing valid blocks to reverse its prior transactions.

A transaction in bitcoins between two parties is recorded in the Blockchain in a block only if that block is accepted as valid by a majority of the nodes on the Bitcoin Network. Validation of a block is achieved by confirming the cryptographic "hash value" included in the block's solution and by the block's addition to the longest confirmed Blockchain on the Bitcoin Network. For a transaction, inclusion in a block on the Blockchain constitutes a "confirmation" of the bitcoin transaction. As each block contains a reference to the immediately preceding block, additional blocks appended to and incorporated into the Blockchain constitute additional confirmations of the transactions in such prior blocks, and a transaction included in a block for the first time is confirmed once against double-spending. The layered confirmation process makes changing historical blocks (and reversing transactions) exponentially more difficult the further back one goes in the Blockchain. Bitcoin Exchanges and users can set their own threshold as to how many confirmations are required until funds from the transferor are considered valid. However, statistically speaking, a transaction is virtually final after six confirmations as it would be extremely difficult to challenge the validity of the transaction at that point.

According to the Registration Statement, at this point in the evolution of the Bitcoin Network, bitcoin transactions are considered irreversible. Once a transaction appears in the Blockchain, no one has the authority to reverse it. If someone were to attempt to undo a past transaction in a block recorded on the Blockchain, such individual would have to exert tremendous processing power in a series of complicated transactions that may not be achieved at this point in the Bitcoin Network's development.

### Bitcoin Security and Storage

According to the Registration Statement, all transactions on the Bitcoin Network are secured using public-key cryptography, a technique which underpins many online transactions. Public-key cryptography works by generating two mathematically related keys (one a public key and the other a private key). One of these, the private key, is retained in the individual's digital wallet and the other key is made public and serves as the address to which bitcoin(s) can be transferred and from which money can be transferred by the owner of the bitcoin wallet. In the case of bitcoin transactions, the public key is an address (a string of letters and numbers) that is used to encode payments, which can then only be retrieved with its associated private key, which is used to authorize the transaction. In other words, the payor uses his private key to approve any transfers to a recipient's account. Users on the Bitcoin Network can confirm that the user signed the transaction with the appropriate private key, but cannot reverse engineer the private key from the signature.

According to the Registration Statement, the Custodian is responsible for keeping the private key or keys that provide access to the Trust's digital wallets and vaults secure. Pursuant to a request from the Sponsor or the Trust, the Custodian will establish and maintain an account with one or more wallets ("Wallet Account") and one or more cold-storage vault accounts ("Vault Account" and, together with the Wallet Account and any subaccounts associated therewith, the "Bitcoin Account") in the name of the Sponsor and the Trust. The Custodian deposits and withdraws bitcoins to and from the Bitcoin Account at the instruction of the Sponsor. The Custodian is responsible for administering the Bitcoin Account.

The Bitcoin Account is maintained by the Custodian and cold storage mechanisms are used for the Vault Account by the Custodian. Each digital wallet of the Trust may be accessed using its corresponding private key. The Custodian's custodial operations maintain custody of the private keys that have been deposited in cold storage at its various vaulting premises which are located in geographically dispersed locations across the world, including but not limited to the United States, Europe (including Switzerland) and South America. According to the Registration Statement, the locations of the vaulting premises change regularly and are kept confidential by the Custodian for security purposes.

The term "cold storage" refers to a safeguarding method by which the private keys corresponding to bitcoins stored on a digital wallet are removed from any

computers actively connected to the internet. Cold storage of private keys may involve keeping such wallet on a non-networked computer or electronic device or storing the public key and private keys relating to the digital wallet on a storage device (for example, a USB thumb drive) or printed medium (for example, papyrus or paper) and deleting the digital wallet from all computers. According to the Registration Statement, most of the private keys in the Wallet Account and all of the private keys in the Vault Account are kept in cold storage. A digital wallet may receive deposits of bitcoins but may not send bitcoins without use of the bitcoins' corresponding private keys. In order to send bitcoin from a digital wallet in which the private keys are kept in cold storage, either the private keys must be retrieved from cold storage and entered into a bitcoin software program to sign the transaction, or the unsigned transaction must be sent to the "cold" server in which the private keys are held for signature by the private keys. At that point, the user of the digital wallet can transfer its bitcoins.

According to the Registration Statement, the Custodian is the custodian of the Trust's private keys and will utilize certain security procedures such as algorithms, codes, passwords, encryption or telephone call-backs in the administration and operation of the Trust and the safekeeping of its bitcoins and private keys. The Custodian has created a Vault Account for the Trust assets in which private keys are placed in cold storage. According to the Registration Statement, the Custodian segregates the private keys stored with it from any other assets it holds or holds for others.

According to the Registration Statement, multiple distinct private keys must sign any transaction in order to transfer the Trust's bitcoins from a multi-signature address to any other address on the Bitcoin blockchain. Distinct private keys required for multi-signature address transfers reside in geographically dispersed vault locations. The Custodian refers to these vault locations, where transactions are signed by private keys, as "signing vaults." In addition to multiple signing vaults, the Custodian maintains multiple "back-up vaults" in which backup private keys are stored. According to the Registration Statement, in the event that one or more of the "signing vaults" were to be compromised, back-up vaults can be activated and used as signing vaults to complete a transaction within 72 hours.

Therefore, according to the Registration Statement, if any one signing vault were to be compromised, it would have no impact on the ability of the Trust to access its bitcoins, other than a possible delay in operations of 72 hours, while one or more of the back-up vaults was transitioned to a signing vault. According to the Registration Statement, these security procedures ensure that there is no single point of failure in the protection of the Trust's assets.

The Custodian is authorized to accept, on behalf of the Trust, deposits of bitcoins from "Authorized Participant Self-Administered Accounts" (as defined below) or "Liquidity Provider Accounts" (as defined below), as applicable, held with the Custodian and transfer such bitcoins into the Bitcoin Account. Deposits of bitcoins will be immediately available to the Trust to the extent such bitcoins have

not already been transferred to the Vault Account. Bitcoins transferred to the Bitcoin Account will be directly deposited into digital wallets for which the keys are already in cold storage.

According to the Registration Statement, if bitcoins need to be withdrawn from the Trust in connection with a redemption, the Custodian will ensure that the private keys to those bitcoins sign the withdrawal transaction.

### Bitcoin Mining and Creation of New Bitcoins

According to the Registration Statement, the process by which bitcoins are created and bitcoin transactions are verified is called mining.<sup>9</sup> To begin mining, a miner can download and run a mining client, which, like regular Bitcoin Network software programs, turns the user's computer into a "node" on the Bitcoin Network that validates blocks. Bitcoin transactions are recorded in new blocks that are added to the Blockchain and new bitcoins being issued to the miners. Miners, through the use of the bitcoin software program, engage in a set of prescribed complex mathematical calculations in order to add a block to the Blockchain and thereby confirm bitcoin transactions included in that block's data.

In order to add blocks to the Blockchain, a miner must map an input data set (i.e., the Blockchain, plus a block of the most recent Bitcoin Network transactions and an arbitrary number called a "nonce") to a desired output data set of a predetermined length, i.e., a hash value, using the SHA-256 cryptographic hash algorithm. Each unique block can only be solved and added to the Blockchain by one miner; therefore, all individual miners and mining pools on the Bitcoin Network are engaged in a competitive process of constantly increasing their computing power to improve their likelihood of solving for new blocks. According to the Registration Statement, as more miners join the Bitcoin Network and its processing power increases, the Bitcoin Network adjusts the complexity of the block-solving equation to maintain a predetermined pace of adding a new block to the Blockchain approximately every ten minutes.

A miner's proposed block is added to the Blockchain once a majority of the nodes on the Bitcoin Network confirms the miner's work. Miners that are successful in adding a block to the Blockchain are automatically awarded bitcoins for their effort plus any transaction fees paid by transferors whose transactions are recorded in the block. This reward system is the method by which new bitcoins enter into circulation to the public.

The supply of new bitcoins is mathematically controlled in a manner so that the number of bitcoins grows at a limited rate pursuant to a pre-set schedule. The number of bitcoins awarded for solving a new block is automatically halved after

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<sup>9</sup> None of the Trust, Sponsor or Genesis currently participates in mining or has plans to engage in mining in the future.

every 210,000 blocks are added to the Blockchain. Recently, in July 2016, the fixed reward for solving a new block decreased from 25 bitcoins to 12.5 bitcoins per block and this is expected to decrease by half to become 6.25 bitcoins after the next 210,000 blocks have entered the Bitcoin Network, which is expected to be July 2020. This deliberately controlled rate of bitcoin creation means that the number of bitcoins in existence will increase at a controlled rate until the number of bitcoins in existence reaches the pre-determined 21 million bitcoins. According to the Registration Statement, as of March 15, 2017, approximately 16.22 million bitcoins have been mined, and estimates of when the 21 million bitcoin limitation will be reached range up to the year 2140.

### Bitcoin Exchanges

According to the Registration Statement, due to the peer-to-peer framework of the Bitcoin Network and the protocols thereunder, transferors and recipients of bitcoins are able to determine the value of the bitcoins transferred by mutual agreement or barter with respect to their transactions. As a result, the most common means of determining the value of a bitcoin is by surveying one or more Bitcoin Exchanges where bitcoins are bought, sold and traded. On each Bitcoin Exchange, bitcoins are traded with publicly disclosed valuations for each transaction, measured by one or more fiat currencies such as the U.S. dollar or the Chinese yuan.

According to the Registration Statement, historically, a large percentage of the global trading volume occurred on self-reported, unregulated exchanges located in China. In January 2017, some of the largest China-based Bitcoin Exchanges implemented certain adjustments to their terms, including the introduction of a 0.2% fixed-rate transaction fee for all bitcoin buy and sell orders. In February 2017, certain smaller China-based Bitcoin Exchanges also imposed or increased trading fees on their respective exchanges. In the subsequent weeks, some of the largest China-based Bitcoin Exchanges halted bitcoin withdrawals. According to the Registration Statement, these events have substantially reduced the volume traded on Chinese exchanges and changed the global liquidity profile for bitcoins.

For example, according to the Registration Statement, from May 10, 2015 to January 24, 2017, the three primary China-based Bitcoin Exchanges, BTCC, Huobi and OKCoin, reported a total trade volume of approximately 1.35 billion bitcoins and an average daily trade volume of 2.16 million bitcoins, comprising more than 95% of the global exchange-traded volume based on data from the Index Provider. According to the Registration Statement, during this period, the exchanges that comprised the Index, reported a total trade volume of 33.03 million bitcoins and an average daily trade volume of approximately 53,000 bitcoins, accounting for approximately 2.3% of the global exchange-traded volume and 78.5% of the U.S. dollar-denominated trade volume.

However, according to the Registration Statement, from January 25, 2017 to March 15, 2017, following the introduction of fixed-rate transaction fees in

response, the three primary China-based Bitcoin Exchanges, BTCC, Huobi and OKCoin, reported a total trade volume of approximately 1.35 million bitcoins and an average daily trade volume of approximately 27,000 bitcoins, comprising only 25.2% of the global exchange-traded volume based on data from the Index Provider. During this period, the exchanges that comprised the Index, reported a total trade volume of approximately 1.89 million bitcoins and an average daily trade volume of nearly 39,000 bitcoins, accounting for 35.2% of the global exchange-traded volume and 73.6% of the U.S. dollar-denominated trade volume.

According to the Registration Statement, similar to other currency pairs, such as euro to bitcoin, movements in pricing on the Chinese exchanges are generally in line with U.S. dollar-denominated exchanges. For example, according to the Registration Statement, based on data from the Index Provider, from May 10, 2015 to March 15, 2017, the 4:00 p.m., Eastern Time (“E.T.”), spot price on the three primary Chinese yuan-denominated exchanges (BTC China, Huobi and OKCoin) differed from the “Bitcoin Index Price” (as defined below) by only 1.6% on average.

According to the Registration Statement, bitcoin price indexes have also been developed by a number of service providers in the bitcoin space. For example, Coindesk, a digital currency content provider and wholly-owned subsidiary of Digital Currency Group, launched a proprietary bitcoin price index in September 2013, and bitcoinaverage.com provides an average of all bitcoin prices on several Bitcoin Exchanges. The Sponsor uses the Index calculated by the Index Provider to determine the “Bitcoin Index Price,” as described below under “Bitcoin Index Price.”

Currently, there are numerous Bitcoin Exchanges operating worldwide in a number of currency pairs including, among others, bitcoin to U.S. dollar, bitcoin to euro, bitcoin to Chinese yuan and bitcoin to Indian rupee. According to the Registration Statement, most of the data with respect to prevailing valuations of bitcoin come from such Bitcoin Exchanges. These exchanges include established exchanges such as Bitstamp, GDAX and Bitfinex, which provide a number of options for buying and selling bitcoins. Among the Bitcoin Exchanges eligible for inclusion in the Index, domicile, regulation and legal compliance varies.

The table below sets forth (1) the aggregate number of bitcoin trades made on the eight largest U.S. dollar-denominated Bitcoin Exchanges by trade volume from May 10, 2015 to March 15, 2017 and (2) the market share of trade volume of each such Bitcoin Exchange.

<b>Eight Largest U.S. Dollar-Denominated Bitcoin Exchanges by Trade Volume</b> <sup>10</sup>	<b>Volume (BTC)</b> <sup>11 12</sup>	<b>Market Share</b>
<i>Bitcoin Exchanges included in the Index as of March 15, 2017</i>		
Bitfinex .....	13,953,081	32.10%
BitStamp .....	6,447,743	14.83%
GDAX (formerly known as Coinbase Exchange) .....	4,874,681	11.22%
ItBit .....	3,275,893	7.54%
<b>Total U.S. dollar-bitcoin trade volume included in the Index as of March 15, 2017</b> .....	<b>28,551,399</b>	<b>65.69%</b>
<i>Bitcoin Exchanges not included in the Index as of March 15, 2017</i>		
OKCoin .....	6,444,440	14.83%
BTC-E .....	4,643,767	10.68%
LakeBTC .....	2,978,524	6.85%
Gemini .....	846,464	1.95%
<b>Total U.S. dollar-bitcoin trade volume not included in the Index as of March 15, 2017</b> .....	<b>14,913,196</b>	<b>34.31%</b>
<b>Total U.S. Dollar-bitcoin trade volume</b>	<b>43,464,594</b>	<b>100.00%</b>

Information regarding each Bitcoin Exchange may be found, where available, on the websites for such Bitcoin Exchanges, among other places.

#### Off-Exchange Bitcoin Trading

According to the Registration Statement, in addition to open online Bitcoin Exchanges, there are “dark pools,” which are bitcoin trading platforms that do not publicly report bitcoin trade data. Market participants have the ability to execute large block trades on a dark pool without revealing those trades and the related price data to the public bitcoin exchange market, although any withdrawal from or deposit to a dark pool platform may be recorded on the Blockchain.<sup>13</sup>

<sup>10</sup> According to the Registration Statement, although the Bitcoin Exchange, LocalBitcoins, accounts for approximately 3% of the U.S. dollar-bitcoin trade volume, the Sponsor does not consider it an appropriate Bitcoin Exchange to include in this analysis because LocalBitcoins does not have an online electronic trading platform that allows for the prices and volumes of bitcoin traded to be reliably tracked.

<sup>11</sup> According to the Registration Statement, these figures reflect the aggregate number of bitcoins traded on each named U.S. dollar-denominated Bitcoin Exchange from May 10, 2015 to March 15, 2017.

<sup>12</sup> According to the Registration Statement, as of May 10, 2015, Kraken EUR (U.S. dollar equivalent) was a component of the Index but was removed from the Index on May 11, 2015. The transactions on Kraken EUR were not a material component to the Index.

<sup>13</sup> According to the Registration Statement, Genesis operates an OTC trading desk that buys and sells large blocks of bitcoins without publicly reporting trade data. Informal dark pools are currently believed to exist, particularly among wholesale

Bitcoin may also be traded over-the-counter (“OTC”). OTC trades are not required to be reported through any facilities. However, according to the Sponsor, based on publicly available information, OTC trading may not represent a material volume of overall bitcoin trading. The OTC markets operate in a similar manner to dark pools. However, typically, OTC trades are institutional size block transactions (though on a much lower scale relative to the size of block transactions for other commodities or industries) or transactions made on behalf of high-net worth individuals.

According to the Sponsor, some OTC intermediaries that facilitate OTC trading, such as Genesis and itBit, provide summary statistics on an ad hoc basis. For instance, in April 2016, itBit reported that it had traded approximately 25,500 bitcoins, valued at approximately \$10.3 million U.S. dollars, which would account for roughly 1.94% of the bitcoin trading volume across the eight highest volume U.S. dollar-denominated exchanges. For the fourth quarter of 2016, Genesis reported trading approximately 70,326 bitcoins, valued at approximately \$51.4 million U.S. dollars. According to the Sponsor, the reported Genesis volume would comprise roughly 2.33% of the trading volume across the eight highest volume U.S. dollar-denominated exchanges during that time period.

#### Bitcoin Price Volatility<sup>14</sup>

According to the Sponsor, volatility in bitcoin was pronounced in its earliest days through late 2013. According to the Sponsor, during that time period, almost all bitcoin trading activity centered on two exchanges, which centralized the global order book and led to large price movements. Since then, the bitcoin trading environment has matured with the development of dozens of exchanges around the world, resulting in more transparency with respect to bitcoin pricing, in increased trading volume and in greater liquidity. Additionally, the globalization of bitcoin exchanges, ranging from those domiciled in the United States to other areas of the globe, such as China, has led to development of many bitcoin currency pairs, garnering more market participants. Today, the largest trading pairs are bitcoin to Chinese yuan, bitcoin to U.S. dollars and bitcoin to euro.

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buyers of bitcoin and bitcoin mining groups that obtain large supplies of bitcoin through mining. Such informal dark pools function as a result of the peer-to-peer nature of the Bitcoin Network, which allows direct transactions between any seller and buyer.

<sup>14</sup> Attached as Exhibit 3 hereto are tables relating to: (i) rolling 3-month volatility of bitcoin and other commodities; (ii) average 3-month correlation of bitcoin to other commodities; (iii) rolling 6-month volatility of bitcoin and other commodities; (iv) average 6-month correlation of bitcoin to other commodities; (v) rolling 12-month volatility of bitcoin and other commodities; and (vi) average 12-month correlation of bitcoin to other commodities.

Bitcoin price volatility has declined since the inception of bitcoin. According to the Sponsor and as detailed in Exhibit 3, recent figures, such as the three, six and twelve-month volatility charts, show that the volatility of bitcoin is now at levels comparable to those seen for other commodities such as natural gas and continues to trend downward.

According to the Sponsor, while bitcoin price volatility has declined and its volatility approximately corresponds to that of certain commodities, the volatility of bitcoin is not correlated with the volatility of other commodities over shorter- (i.e., three to six months) and longer-term (i.e., longer than one year) investment horizons, reinforcing the important role bitcoin can play as a diversifying asset in an investor's portfolio.

### Demand for Bitcoin

According to the Sponsor, demand for bitcoins is based on several factors. Demand may be based on speculation regarding the future appreciation of the value of bitcoins. Continuing development of various applications utilizing the Bitcoin Network for uses such as remittance, payment for goods and services, recording transfer of ownership of certain assets and settlement of both financial and non-financial assets have led many investors to speculate that the price of bitcoins will appreciate as use of these applications increases. As additional applications are developed, demand may increase. Additionally, some investors have developed analogs between bitcoin and other scarce assets such as gold. Bitcoin shares many of the same characteristics as gold, e.g., scarcity, but has superior utility, portability and divisibility. If investors shift a portion of their asset allocations from gold to bitcoin, the demand for bitcoins could increase. Furthermore, bitcoins are used in day-to-day transactions for the purchase of goods and services. As additional merchants continue to accept bitcoins for the purchase of goods and services, demand for bitcoins may increase. Relatedly, as merchants accept bitcoins for sales of goods and services, supply of bitcoins could increase on the exchange markets as these merchants look to liquidate their bitcoin for fiat currencies.

### Bitcoin Index Price

The "Bitcoin Index Price" is the U.S. dollar value of a bitcoin as represented by the Index, calculated at 4:00 p.m., E.T., on each business day. If the Index becomes unavailable, or if the Sponsor determines in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Index Provider in order to obtain the Bitcoin Index Price. If after such contact the Index remains unavailable or the Sponsor continues to believe in good faith that the Index does not reflect an accurate bitcoin value, then the Administrator will utilize the following cascading set of rules to calculate the Bitcoin Index Price. For the avoidance of doubt, the Sponsor will employ the below rules sequentially and in the order presented below, should one or more specific rule(s) fail:

- (i) Bitcoin Index Price = The price set by the Index as of 4:00 p.m., E.T., on the valuation date. According to the Registration Statement, the Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin based on the volume-weighted price at trading venues selected by the Index Provider. Trading venues used to calculate the Index may include Bitcoin Exchanges, OTC markets or derivative platforms. According to the Registration Statement, to ensure that the Index Provider's trading venue selection process is impartial, the Index Provider considers depth of liquidity, compliance with applicable legal and regulatory requirements, data availability, U.S. domicile and acceptance of U.S. dollar deposits. The Index Provider conducts a quarterly review of these criteria.

According to the Registration Statement, as of the date of the Registration Statement, the eligible Bitcoin Exchanges selected by the Index Provider include Bitfinex, Bitstamp, GDAX (formerly known as Coinbase Exchange) and itBit.<sup>15</sup> Bitfinex is a trading platform based in Hong Kong for digital currencies, including bitcoin, that offers many advanced features such as margin and exchange trading and margin funding. Bitstamp is a European Union-based bitcoin marketplace that enables people from all around the world to safely buy and sell bitcoins. GDAX, based in San Francisco, California, is a digital currency exchange. itBit is a New York City-based, regulated global exchange that offers retail and institutional investors a powerful platform to buy and sell bitcoin.

According to the Registration Statement, in the calculation of the Bitcoin Index Price, the Index Provider cleanses the trade data and compiles it in such a manner as to algorithmically reduce the impact of anomalistic or manipulative trading. This is accomplished by adjusting the weight of each input based on price deviation relative to the observable set of data for the relevant trading venue, as well as recent and long-term trading volume at each venue relative to the observable set for the relevant trading venues. The Index Provider reduces the weighting of data inputs as they get further from the mean price across the trading venues and ultimately excludes any trade with a price that deviates beyond a certain predetermined threshold level from the mean. In addition, the Index groups "trade bursts" (i.e., a group of small-size trades in a short period of time, typically under one second) and movements during off-peak trading hours on any given venue into single data inputs, which reduces the potentially erratic price movements caused by small, individual orders. The Index Provider formally reevaluates the weighting algorithm

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<sup>15</sup> According to the Registration Statement, Digital Currency Group owns a minority interest in Coinbase, which operates the GDAX, representing approximately 0.5% of its equity and a minority interest in Paxos, which operates itBit, representing less than 0.3% of its equity.

quarterly, but maintains discretion to change the way in which the Index is calculated based on its periodic review or in extreme circumstances. The precise formula underlying the Index is proprietary.

According to the Registration Statement, the Index Provider does not currently include data from OTC markets or derivative platforms. OTC data is not currently included because of the potential for trades to include a significant premium or discount paid for larger liquidity, which creates an uneven comparison relative to more active markets. There is also a higher potential for OTC transactions to not be arms-length and thus not be representative of a true market price. Bitcoin derivative markets are also not currently included as the markets remain relatively thin. According to the Registration Statement, the Index Provider will consider International Organization of Securities Commissions (“IOSCO”) principles for financial benchmarks and the management of trading venues of bitcoin derivatives when considering inclusion of OTC or derivative platform data in the future.

According to the Registration Statement, to calculate the Bitcoin Index Price, the weighting algorithm is applied to the price and volume of all inputs for the immediately preceding 24-hour period as of 4:00 p.m., E.T., on the valuation date. According to the Registration Statement, to measure volume data and trading halts, the Index Provider monitors trading activity and regards as eligible those Bitcoin Exchanges that it determines represent a substantial portion of U.S. dollar-denominated trading over a sustained period on a platform without a significant history of trading disruptions. The Index Provider maintains a monitoring system that tests for these criteria on an ongoing basis.

The description of the Index is based on information publicly available at the Index Provider’s website at <https://tradeblock.com/markets/index/>. The Index spot price will be available on the Index Provider’s website and/or from one or more major market data vendors.

If the Index becomes unavailable, or if the Sponsor determines in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Index Provider to obtain the Bitcoin Index Price directly from the Index Provider. If after such contact, the Index remains unavailable or the Sponsor continues to believe in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (ii) Bitcoin Index Price = The volume-weighted average bitcoin price for the immediately preceding 24-hour period as of 4:00 p.m., E.T., on the valuation date as calculated based upon the volume-weighted average

bitcoin prices of the Major Bitcoin Exchanges as published by an alternative third party's public data feed that the Sponsor believes is accurately and reliably providing market data (i.e., is receiving up-to-date and timely market data from constituent exchanges) ("Second Source"). "Major Bitcoin Exchanges" are those Bitcoin Exchanges that are online, trade on a 24-hour basis and make transaction price and volume data publicly available. Subject to the next sentence, if the Second Source becomes unavailable (for example, data sources from the Second Source for bitcoin prices become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Second Source does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Second Source in an attempt to obtain the relevant data. If after such contact the Second Source remains unavailable or the Sponsor continues to believe in good faith that the Second Source does not reflect an accurate bitcoin price, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (iii) Bitcoin Index Price = The volume-weighted average bitcoin price as calculated by dividing (a) the U.S. dollar value of the bitcoin transactions on the Major Bitcoin Exchanges by (b) the total number of bitcoins traded on the Major Bitcoin Exchanges, in each case for the 24-hour period from 4:00 p.m., E.T. (or as soon as practicable thereafter), on the business day prior to the valuation date to 4:00 p.m., E.T. (or as soon as practicable thereafter), on the valuation date as published by a third party's public data feed that the Sponsor believes is accurately and reliably providing market data (i.e., is receiving up-to-date and timely market data from eligible exchanges), subject to the requirement that such data is calculated based upon a volume-weighted average bitcoin price obtained from the Major Bitcoin Exchanges ("Third Source"). Subject to the next sentence, if the Third Source becomes unavailable (for example, data sources from the Third Source become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Third Source does not reflect an accurate bitcoin price, then the Sponsor will, on a best efforts basis, contact the Third Source in an attempt to obtain the relevant data. If after such contact the Third Source remains unavailable or the Sponsor continues to believe in good faith that the Third Source does not reflect an accurate bitcoin value then the Sponsor will employ the next rule to determine the Bitcoin Index Price.
- (iv) Bitcoin Index Price = The volume-weighted average bitcoin price as calculated by dividing (a) the U.S. dollar value of the bitcoin transactions on the Bitcoin Benchmark Exchanges by (b) the total number of bitcoins traded on the Bitcoin Benchmark Exchanges, in each case for the 24-hour period from 4:00 p.m., E.T. (or as soon as practicable thereafter), on the business day prior to the valuation date to 4:00 p.m., E.T. (or as soon as practicable thereafter), on the valuation date. A "Bitcoin Benchmark

Exchange” is a Bitcoin Exchange that represents at least 25% of the aggregate U.S. dollar-denominated trading volume of the bitcoin market during the last 30 consecutive calendar days and that to the knowledge of the Sponsor is in substantial compliance with the laws, rules and regulations, including any anti-money laundering (“AML”) and know-your-customer (“KYC”) procedures, of such Bitcoin Exchange’s applicable jurisdiction; provided that if there are fewer than three such Bitcoin Exchanges, then the Bitcoin Benchmark Exchanges will include such Bitcoin Exchange or Bitcoin Exchanges that meet the above-described requirements as well as one or more additional Bitcoin Exchanges, selected by the Sponsor, that have had monthly trading volume of at least 50,000 bitcoins during the last 30 consecutive calendar days and that to the knowledge of the Sponsor is in substantial compliance with the laws, rules and regulations, including any AML and KYC procedures, of such Bitcoin Exchange’s applicable jurisdiction.

The Sponsor will review the composition of the exchanges that comprise the Bitcoin Benchmark Exchanges at the beginning of each month, or more frequently if necessary, in order to ensure the accuracy of its composition.

Subject to the next sentence, if one or more of the Bitcoin Benchmark Exchanges become unavailable (for example, data sources from the Bitcoin Benchmark Exchanges of bitcoin prices become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Bitcoin Benchmark Exchange does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Bitcoin Benchmark Exchange that is experiencing the service outages in an attempt to obtain the relevant data. If after such contact one or more of the Bitcoin Benchmark Exchanges remain unavailable or the Sponsor continues to believe in good faith that the Bitcoin Benchmark Exchange does not reflect an accurate bitcoin price, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (v) Bitcoin Index Price = The Sponsor will use its best judgment to determine a good faith estimate of the Bitcoin Index Price.

Data used for the above calculation of the Bitcoin Index Price is gathered by the Administrator or its delegate who calculates the Bitcoin Index Price each business day as of 4:00 p.m., E.T., or as soon thereafter as practicable. The Administrator will disseminate the Bitcoin Index Price each business day.

The Index Provider may change the trading venues that are used to calculate the Index, or otherwise change the way in which the Index is calculated at any time. The Index Provider does not have any obligation

to consider the interests of the Sponsor, the Administrator, the Trust, the shareholders or anyone else in connection with such changes. The Index Provider is not required to publicize or explain the changes, or to alert the Sponsor or the Administrator to such changes. The Index Provider will consider IOSCO principles for financial benchmarks and the management of trading venues of bitcoin derivatives when considering inclusion of OTC or derivative platform data in the future.

### **Bitcoin Holdings**

According to the Registration Statement, the Trust's assets will consist solely of bitcoin. The Administrator will determine the value of the Trust for operational purposes (herein referred to as "Bitcoin Holdings"), which is the aggregate U.S. dollar value, based on the Bitcoin Index Price, of the Trust's bitcoins less its liabilities, on each day the Shares trade on the Exchange as of 4:00 p.m. E.T., or as soon thereafter as practicable.<sup>16</sup> The Administrator will also determine the Bitcoin Holdings per Share, which equals the Trust's Bitcoin Holdings divided by the number of outstanding Shares. The Sponsor will publish the Bitcoin Holdings and the Bitcoin Holdings per Share each business day at 4:00 p.m., E.T., or as soon thereafter as practicable at the Trust's website at <https://grayscale.co/bitcoin-investment-trust/#market-performance>.

To calculate the Bitcoin Holdings, the Administrator will determine the Bitcoin Index Price and multiply the Bitcoin Index Price by the aggregate number of bitcoins owned by the Trust as of 4:00 p.m., E.T., on the immediately preceding day. The Administrator will add the U.S. dollar value of any bitcoins, as calculated using the Bitcoin Index Price, receivable under pending creation orders, if any, determined by multiplying the number of creation Baskets represented by such creation orders by the Basket Bitcoin Amount and then multiplying such product by the Bitcoin Index Price. The Administrator will subtract (i) the U.S. dollar value of the bitcoins, as calculated using the Bitcoin Price Index, constituting any accrued but unpaid fees, (ii) the U.S. dollar value of the bitcoins to be distributed under pending redemption orders, determined by multiplying the number of redemption Baskets represented by such redemption orders by the Basket Bitcoin Amount and then multiplying such product by the Bitcoin Index Price and (iii) certain expenses of the Trust.

The Sponsor will publish the Bitcoin Index Price, the Bitcoin Holdings and the Bitcoin Holdings per Share on the Trust's website as soon as practicable after its determination. If the Bitcoin Holdings and Bitcoin Holdings per Share have been calculated using a price per bitcoin other than the Bitcoin Index Price, the

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Bitcoin Holdings is different than the GAAP net asset value referenced in the Registration Statement.

publication on the Trust's website will note the valuation methodology used and the price per bitcoin resulting from such calculation.

While the Trust's investment objective is for the Shares to reflect the performance of the value of a bitcoin as represented by the Index, less the Trust's liabilities and expenses, the Shares may trade in the secondary market at prices that are lower or higher than the Bitcoin Holdings per Share. The amount of the discount or premium in the trading price relative to the Bitcoin Holdings per Share may be influenced by non-concurrent trading hours and liquidity between the secondary market and larger Bitcoin Exchanges in the bitcoin exchange market. While the Shares will be listed and trade on the Exchange from 9:30 a.m. until 4:00 p.m., E.T., liquidity in the global bitcoin markets may fluctuate depending upon the volume and availability of larger Bitcoin Exchanges. As a result, during periods in which bitcoin exchange market liquidity is limited or a major Bitcoin Exchange is off-line, trading spreads, and the resulting premium or discount, on the Shares may widen.

#### Impact on Arbitrage

Because of the potential for arbitrage inherent in the structure of the Trust, the Sponsor believes that the Shares will not trade at a material discount or premium to the underlying bitcoin held by the Trust. The arbitrage process, which in general provides investors the opportunity to profit from differences in prices of assets, increases the efficiency of the markets, serves to prevent potentially manipulative efforts, and can be expected to operate efficiently in the case of the Shares and bitcoin. If the price of the Shares deviates enough from the price of bitcoin to create a material discount or premium, an arbitrage opportunity is created. If the Shares are inexpensive compared to the bitcoin that underlies them, an arbitrageur may buy the Shares at a discount, immediately redeem them in exchange for bitcoin, and sell the bitcoin in the cash market at a profit. If the Shares are expensive compared to the bitcoin that underlies them, an arbitrageur may sell the Shares short, buy enough bitcoin to acquire the number of Shares sold short, acquire the Shares through the creation process, and deliver the Shares to close out the short position.<sup>17</sup> In both instances, the arbitrageur serves to efficiently correct price discrepancies between the Shares and the underlying bitcoin.

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<sup>17</sup> The Exchange states that the Trust, which will only hold bitcoin, differs from index-based exchange-traded funds, which may involve a trust holding hundreds or even thousands of underlying component securities, necessarily involving in the arbitrage process movements in a large number of security positions. See, e.g., Securities Exchange Act Release No. 46306 (August 2, 2002) (approving the UTP trading of Vanguard Total Market VIPERs based on the Wilshire 5000 Total Market Index).

## **Creation and Redemption of Shares**

According to the Registration Statement, the Trust will issue and redeem “Baskets,” each equal to a block of 100 Shares, only to Authorized Participants. The size of a Basket is subject to change. The creation and redemption of a Basket require the delivery to the Trust, or the distribution by the Trust, of the number of whole and fractional bitcoins represented by each Basket being created or redeemed, the number of which is determined by dividing the number of bitcoins owned by the Trust at 4:00 p.m., E.T., on the trade date of a creation or redemption order, by the number of Shares outstanding at such time (calculated to one one-hundred-millionth of one bitcoin), as adjusted for the number of whole and fractional bitcoins constituting accrued but unpaid fees and expenses of the Trust and multiplying the quotient obtained by 100 (“Basket Bitcoin Amount”). The Basket Bitcoin Amount multiplied by the number of Baskets being created or redeemed is the “Total Basket Bitcoin Amount.” The Basket Bitcoin Amount will gradually decrease over time as the Trust’s bitcoins are used to pay the Trust’s expenses. According to the Registration Statement, as of the date of the Registration Statement, each Share currently represents approximately 0.093 of a bitcoin.

Authorized Participants are the only persons that may place orders to create and redeem Baskets. Each Authorized Participant must (i) be a registered broker-dealer, (ii) enter into a participant agreement with the Sponsor, the Administrator, the Marketing Agent and the Liquidity Providers (“Participant Agreement”) and (iii) in the case of the creation or redemption of Baskets that do not use the “Conversion Procedures” (as defined below), own a bitcoin wallet address that is recognized by the Custodian as belonging to the Authorized Participant (“Authorized Participant Self-Administered Account”). Authorized Participants may act for their own accounts or as agents for broker-dealers, custodians and other securities market participants that wish to create or redeem Baskets. Shareholders who are not Authorized Participants will only be able to redeem their Shares through an Authorized Participant.

Although the Trust will create Baskets only upon the receipt of bitcoins, and will redeem Baskets only by distributing bitcoins, an Authorized Participant may deposit cash with the Administrator, which will facilitate the purchase or sale of bitcoins through a Liquidity Provider on behalf of an Authorized Participant (“Conversion Procedures”). “Liquidity Providers” must (i) enter into a Participant Agreement with the Sponsor, the Trust, the Marketing Agent and each Authorized Participant and (ii) own a bitcoin wallet address that is recognized by the Custodian as belonging to a Liquidity Provider (“Liquidity Provider Account”).

The Conversion Procedures will be facilitated by a single Liquidity Provider. On an order-by-order basis, the Sponsor will select the Liquidity Provider that it believes will provide the best execution of the Conversion Procedures, and will base its decision on factors such as the Liquidity Provider’s creditworthiness,

financial stability, ability to obtain the best price, the timing and speed of execution, liquidity and the likelihood of, and capabilities in, execution, clearance and settlement. In the event that an order cannot be filled in its entirety by a single Liquidity Provider, additional Liquidity Provider(s) will be selected by the Sponsor to fill the remaining amount based on the criteria above.

The trade date on which the Basket Bitcoin Amount is determined is different for in-kind and in-cash orders. For in-kind orders, the trade date is the day on which an order is placed, whereas the trade date for in-cash orders is the day after which an order is placed. This could result in a different execution price for in-kind and in-cash orders.

For example, if an Authorized Participant submits an in-kind order at 2:00 p.m., E.T., on a Monday, the Basket Bitcoin Amount required to purchase a Basket of Shares will be determined at 4:00 p.m., E.T., or as soon as practicable thereafter, on that same day. Alternatively, for in-cash orders, if an Authorized Participant submits an order at 2:00 p.m., E.T., on a Monday and pays the requisite Cash Collateral Amount (as defined below) at 3:00 p.m., E.T., on that same date, the Total Basket Bitcoin Amount will nevertheless be determined at 4:00 p.m., E.T., or as soon as practicable thereafter, on Tuesday. Pursuant to the Conversion Procedures, the Authorized Participant is obligated to pay the Cash Exchange Rate (as defined below) which is calculated on Monday, times the Total Basket Bitcoin Amount, which is calculated on Tuesday. The Liquidity Provider is required to deposit the Total Basket Bitcoin Amount as calculated on Tuesday, even if there were a change in the price of bitcoin since Monday.

To create Baskets in-kind, Authorized Participants will send the Administrator a creation order on the trade date. In-kind creation orders must be placed no later than 3:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the creation order, and this determination will be communicated to the Authorized Participant by the Administrator on that same date. The Total Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., on that date. On the business day following the trade date, the Authorized Participant will transfer the Total Basket Bitcoin Amount to the Custodian. Once the Total Basket Bitcoin Amount is received by the Custodian, the Administrator will instruct the Transfer Agent to deliver the creation Baskets to the Authorized Participant.

To create Baskets using the Conversion Procedures, Authorized Participants will send the Administrator a creation order on the business day preceding the trade date. In-cash creation orders must be placed no later than 4:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the creation order, and this determination will be communicated to the Authorized Participants by the Administrator on that same date. Upon receiving instruction from the Administrator that a creation order has been accepted by the Marketing Agent, the Authorized Participant will send 110% of the U.S. dollar value of the Total Basket Bitcoin Amount (“Cash Collateral Amount”). The Total Basket Bitcoin

Amount will be determined as soon as practicable after 4:00 p.m., E.T., the following day. Once the Cash Collateral Amount is received by the Administrator, the Sponsor will notify the Liquidity Provider of the creation order. The Liquidity Provider will then provide a firm quote to the Authorized Participant for the Total Basket Bitcoin Amount, determined by using the “Cash Exchange Rate,” which, in the case of a creation order, is the Index spot price at the time at which the Cash Collateral Amount is received by the Administrator, plus applicable fees. If the Liquidity Provider’s quote is greater than the Cash Collateral Amount received, the Authorized Participant will be required to pay the difference. Provided that payment for the Total Basket Bitcoin Amount is received by the Administrator, the Liquidity Provider will deliver the bitcoins to the Custodian on the settlement date on behalf of the Authorized Participant. The Liquidity Provider may realize any arbitrage opportunity between the firm quote that it provides to the Authorized Participant and the price at which it sources the requisite bitcoin for the Total Basket Bitcoin Amount. After the Custodian receives the Total Basket Bitcoin Amount, the Administrator will instruct the Transfer Agent to deliver the Creation Baskets to the Authorized Participant. The Administrator will then send the Liquidity Provider the cash equal to the Cash Exchange Rate times the Total Basket Bitcoin Amount, plus applicable fees. The Administrator will return any remaining amount of the Cash Collateral Amount to the Authorized Participant.

To redeem Baskets in-kind, Authorized Participants will send the Administrator a redemption order on the trade date. In-kind redemption orders must be placed no later than 3:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the redemption order and the Total Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., on that same date. On the second business day following the trade date, the Authorized Participant will deliver to the Transfer Agent redemption Baskets from its account. Once the redemption Baskets are received by the Transfer Agent, the Custodian will transfer the Total Basket Bitcoin Amount to the Authorized Participant and the Transfer Agent will cancel the Shares.

To redeem Baskets using the Conversion Procedures, Authorized Participants will send the Administrator a redemption order. In-cash redemption orders must be placed no later than 4:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the redemption order on that same date. A Liquidity Provider will then provide a firm quote to an Authorized Participant for the Total Basket Bitcoin Amount, determined by using the “Cash Exchange Rate,” which, in the case of a redemption order, is the Index spot price minus applicable fees at the time at which the Administrator notifies the Authorized Participant that an order has been accepted.

The Liquidity Provider will send the Administrator the cash proceeds equal to the Cash Exchange Rate times the Total Basket Bitcoin Amount, minus applicable fees. The Liquidity Provider may realize any arbitrage opportunity between the firm quote that it provides to the Authorized Participant and the price at which it

sells the requisite bitcoin for the Total Basket Bitcoin Amount. Once the Authorized Participant delivers the redemption Baskets to the Transfer Agent, the Administrator will send the cash proceeds to the Authorized Participant and the Transfer Agent will cancel the Shares. At the instruction of the Administrator, the Custodian will then send the Liquidity Provider the Total Basket Bitcoin Amount.

The Sponsor represents that Liquidity Providers will only transact with exchanges and OTC trading partners that have met AML and KYC regulatory requirements. Authorized Participants that create and redeem Baskets using the Conversion Procedures will be responsible for reimbursing the relevant Liquidity Provider for any expenses incurred in connection with the Conversion Procedures. The Authorized Participants will also pay a variable fee to the Administrator for its facilitation of the Conversion Procedures. There are no other fees related to the Conversion Procedures that will be charged by the Sponsor or the Custodian.

The creation or redemption of Shares may be suspended generally, or refused with respect to particular requested creations or redemptions, during any period when the transfer books of the Transfer Agent are closed or if circumstances outside the control of the Sponsor or its delegates make it for all practical purposes not feasible to process creation orders or redemption orders. The Administrator may reject an order if such order is not presented in proper form as described in the Participant Agreement or if the fulfillment of the order, in the opinion of counsel, might be unlawful.

### **Availability of Information**

The Trust's website (<https://grayscale.co/bitcoin-investment-trust/>) will include quantitative information on a per-Share basis updated on a daily basis, including, for the Trust (i) the current Bitcoin Holdings per Share daily and the prior business day's Bitcoin Holdings and the reported closing price, (ii) the mid-point of the bid-ask price<sup>18</sup> in relation to the Bitcoin Holdings as of the time the Bitcoin Holdings is calculated ("Bid-Ask Price") and a calculation of the premium or discount of such price against such Bitcoin Holdings and (iii) data in chart format displaying the frequency distribution of discounts and premiums of the daily Bid-Ask Price against the Bitcoin Holdings, within appropriate ranges, for each of the four previous calendar quarters (or for the life of the Trust, if shorter). In addition, on each business day the Trust's website will provide pricing information for the Shares.

The Trust's website will provide an intra-day indicative value ("IIV") per Share updated every 15 seconds, as calculated by the Exchange or a third party financial

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The bid-ask price of the Trust is determined using the highest bid and lowest offer on the Consolidated Tape as of the time of calculation of the closing day Bitcoin Holdings.

data provider during the Exchange's Core Trading Session (9:30 a.m. to 4:00 p.m., E.T.)<sup>19</sup> The IIV will be calculated by using the prior day's closing Bitcoin Holdings per Share as a base and updating that value during the NYSE Arca Core Trading Session to reflect changes in the value of the Trust's bitcoin holdings during the trading day.

The IIV disseminated during the NYSE Arca Core Trading Session should not be viewed as an actual real time update of the Bitcoin Holdings, which will be calculated only once at the end of each trading day. The IIV will be widely disseminated on a per Share basis every 15 seconds during the NYSE Arca Core Trading Session by one or more major market data vendors. In addition, the IIV will be available through on-line information services.

The Bitcoin Holdings for the Trust will be calculated by the Administrator once a day and will be disseminated daily to all market participants at the same time. To the extent that the Administrator has utilized the cascading set of rules described in "Bitcoin Index Price" above, the Trust's website will note the valuation methodology used and the price per bitcoin resulting from such calculation. Quotation and last-sale information regarding the Shares will be disseminated through the facilities of the Consolidated Tape Association ("CTA").

Quotation and last sale information for bitcoin will be widely disseminated through a variety of major market data vendors, including Bloomberg and Reuters. In addition, the complete real-time price (and volume) data for bitcoin is available by subscription from Reuters and Bloomberg. The spot price of bitcoin is available on a 24-hour basis from major market data vendors, including Bloomberg and Reuters. Information relating to trading, including price and volume information, in bitcoin will be available from major market data vendors and from the exchanges on which bitcoin are traded. The normal trading hours for bitcoin exchanges are 24-hours per day, 365-days per year.

The Trust will provide website disclosure of its Bitcoin Holdings daily. The website disclosure of the Trust's Bitcoin Holdings will occur at the same time as the disclosure by the Sponsor of the Bitcoin Holdings to Authorized Participants so that all market participants are provided such portfolio information at the same time. Therefore, the same portfolio information will be provided on the public website as well as in electronic files provided to Authorized Participants. Accordingly, each investor will have access to the current Bitcoin Holdings of the Trust through the Trust's website.

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<sup>19</sup> The IIV on a per Share basis disseminated during the Core Trading Session should not be viewed as a real-time update of the Bitcoin Holdings, which is calculated once a day.

Additional information regarding the Index may be found at <https://tradeblock.com/markets/index/>.

### **Trading Rules**

The Trust will be subject to the criteria in NYSE Arca Equities Rule 8.201, including 8.201(e), for initial and continued listing of the Shares. A minimum of 100,000 Shares will be required to be outstanding at the start of trading. With respect to application of Rule 10A-3 under the Act, the Trust will rely on the exception contained in Rule 10A-3(c)(7). The Exchange believes that the anticipated minimum number of Shares outstanding at the start of trading is sufficient to provide adequate market liquidity.

The Exchange deems the Shares to be equity securities, thus rendering trading in the Shares subject to the Exchange's existing rules governing the trading of equity securities. Trading in the Shares on the Exchange will occur in accordance with NYSE Arca Equities Rule 7.34(a).<sup>20</sup> The Exchange has appropriate rules to facilitate transactions in the Shares during all trading sessions. As provided in NYSE Arca Equities Rule 7.6, the minimum price variation ("MPV") for quoting and entry of orders in equity securities traded on the NYSE Arca Marketplace is \$0.01, with the exception of securities that are priced less than \$1.00 for which the MPV for order entry is \$0.0001.

Further, NYSE Arca Equities Rule 8.201 sets forth certain restrictions on Equity Trading Permit Holders ("ETP Holders") acting as registered Market Makers in the Shares to facilitate surveillance. Pursuant to NYSE Arca Equities Rule 8.201(g), an ETP Holder acting as a registered Market Maker in the Shares is required to provide the Exchange with information relating to its trading in the underlying bitcoin, related futures or options on futures, or any other related derivatives. Commentary .04 of NYSE Arca Equities Rule 6.3 requires an ETP Holder acting as a registered Market Maker, and its affiliates, in the Shares to establish, maintain and enforce written policies and procedures reasonably designed to prevent the misuse of any material nonpublic information with respect to such products, any components of the related products, any physical asset or commodity underlying the product, applicable currencies, underlying indexes,

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The Exchange has three trading sessions for Commodity-Based Trust Shares each day the Corporation is open for business unless otherwise determined by the Corporation: (i) the Opening Session begins at 1:00 a.m., Pacific Time ("P.T."), and conclude at the commencement of the Core Trading Session; (ii) the Core Trading Session begins for each security at 6:30 a.m., P.T., or at the conclusion of the Market Order Auction, whichever comes later, and conclude at 1:15 p.m., P.T.; and (iii) the Late Trading Session begins following the conclusion of the Core Trading Session and concludes at 5:00 p.m., P.T.

related futures or options on futures and any related derivative instruments (including the Shares).

As a general matter, the Exchange has regulatory jurisdiction over its ETP Holders and their associated persons, which include any person or entity controlling an ETP Holder. A subsidiary or affiliate of an ETP Holder that does business only in commodities or futures contracts would not be subject to Exchange jurisdiction, but the Exchange could obtain information regarding the activities of such subsidiary or affiliate through surveillance sharing agreements with regulatory organizations of which such subsidiary or affiliate is a member.

With respect to trading halts, the Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. Trading on the Exchange in the Shares may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the Shares inadvisable. These may include: (1) the extent to which conditions in the underlying bitcoin markets have caused disruptions and/or lack of trading or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. In addition, trading in Shares will be subject to trading halts caused by extraordinary market volatility pursuant to the Exchange's "circuit breaker" rule.<sup>21</sup>

The Exchange will halt trading in the Shares if the Bitcoin Holdings of the Trust is not calculated or disseminated daily. The Exchange may halt trading during the day in which an interruption occurs to the dissemination of the IIV or the Index spot price, as discussed above. If the interruption to the dissemination of the IIV or the Index spot price persists past the trading day in which it occurs, the Exchange will halt trading no later than the beginning of the trading day following the interruption.<sup>22</sup> In addition, if the Exchange becomes aware that the Bitcoin Holdings with respect to the Shares is not disseminated to all market participants at the same time, it will halt trading in the Shares until such time as the Bitcoin Holdings is available to all market participants.

### **Surveillance**

The Exchange represents that trading in the Shares will be subject to the existing trading surveillances administered by the Exchange, as well as cross-market surveillances administered by the Financial Industry Regulatory Authority ("FINRA") on behalf of the Exchange, which are designed to detect violations of

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<sup>21</sup> See NYSE Arca Equities Rule 7.12.

<sup>22</sup> The Exchange notes that the Exchange may halt trading during the day in which an interruption to the dissemination of the IIV or the Index spot price occurs.

Exchange rules and applicable federal securities laws.<sup>23</sup> The Exchange represents that these procedures are adequate to properly monitor Exchange trading of the Shares in all trading sessions and to deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.

The surveillances referred to above generally focus on detecting securities trading outside their normal patterns, which could be indicative of manipulative or other violative activity. When such situations are detected, surveillance analysis follows and investigations are opened, where appropriate, to review the behavior of all relevant parties for all relevant trading violations.

The Exchange or FINRA, on behalf of the Exchange, or both, will communicate as needed regarding trading in the Shares with other markets and other entities that are members of the Intermarket Surveillance Group (“ISG”), and the Exchange or FINRA, on behalf of the Exchange, or both, may obtain trading information regarding trading in the Shares from such markets and other entities. In addition, the Exchange may obtain information regarding trading in the Shares from markets and other entities that are members of ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement (“CSSA”).<sup>24</sup>

Also, pursuant to NYSE Arca Equities Rule 8.201(g), the Exchange is able to obtain information regarding trading in the Shares and the underlying bitcoin or any bitcoin derivative through ETP Holders acting as registered Market Makers, in connection with such ETP Holders’ proprietary or customer trades through ETP Holders which they effect on any relevant market.

The Exchange also has a general policy prohibiting the distribution of material, non-public information by its employees.

All statements and representations made in this filing regarding (i) the description of the portfolio, (ii) limitations on portfolio holdings or reference assets or (iii) the applicability of Exchange rules and surveillance procedures shall constitute continued listing requirements for listing the Shares on the Exchange.

The issuer has represented to the Exchange that it will advise the Exchange of any failure by the Trust to comply with the continued listing requirements, and, pursuant to its obligations under Section 19(g)(1) of the Act, the Exchange will monitor for compliance with the continued listing requirements. If the Trust is not

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<sup>23</sup> FINRA conducts cross market surveillances on behalf of the Exchange pursuant to a regulatory services agreement. The Exchange is responsible for FINRA’s performance under this regulatory services agreement.

<sup>24</sup> For the list of current members of ISG, see <https://www.isgportal.org/home.html>.

in compliance with the applicable listing requirements, the Exchange will commence delisting procedures under NYSE Arca Equities Rule 5.5(m).

### **Information Bulletin**

Prior to the commencement of trading, the Exchange will inform its ETP Holders in an “Information Bulletin” of the special characteristics and risks associated with trading the Shares. Specifically, the Information Bulletin will discuss the following: (1) the procedures for purchases and redemptions of Shares in Baskets (including noting that the Shares are not individually redeemable); (2) NYSE Arca Equities Rule 9.2(a), which imposes a duty of due diligence on its ETP Holders to learn the essential facts relating to every customer prior to trading the Shares; (3) how information regarding how the Index and the IIV are disseminated; (4) the requirement that ETP Holders deliver a prospectus to investors purchasing newly issued Shares prior to or concurrently with the confirmation of a transaction; (5) the possibility that trading spreads and the resulting premium or discount on the Shares may widen during the Opening and Late Trading Sessions, when an updated IIV will not be calculated or publicly disseminated; and (6) trading information. For example, the Information Bulletin will advise ETP Holders, prior to the commencement of trading, of the prospectus delivery requirements applicable to the Trust. The Exchange notes that investors purchasing Shares directly from the Trust will receive a prospectus. ETP Holders purchasing Shares from the Trust for resale to investors will deliver a prospectus to such investors.

In addition, the Information Bulletin will reference that the Trust is subject to various fees and expenses as described in the Registration Statement. The Information Bulletin will disclose that information about the Shares of the Trust is publicly available on the Trust’s website.

The Information Bulletin will also discuss any relief, if granted, by the Commission or the staff from any rules under the Act.

#### **(b) Statutory Basis**

The basis under the Act for this proposed rule change is the requirement under Section 6(b)(5)<sup>25</sup> that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to, and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule change is designed to prevent fraudulent and manipulative acts and practices in that the Shares will be listed and traded on the Exchange pursuant to the initial and continued listing criteria in

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15 U.S.C. 78f(b)(5).

NYSE Arca Equities Rule 8.201. The Exchange has in place surveillance procedures that are adequate to properly monitor trading in the Shares in all trading sessions and to deter and detect violations of Exchange rules and applicable federal securities laws. The Exchange or FINRA, on behalf of the Exchange, or both, will communicate as needed regarding trading in the Shares with other markets that are members of the ISG, and the Exchange or FINRA, on behalf of the Exchange, or both, may obtain trading information regarding trading in the Shares from such markets. In addition, the Exchange may obtain information regarding trading in the Shares from markets that are members of ISG or with which the Exchange has in place a CSSA. Also, pursuant to NYSE Arca Equities Rule 8.201(g), the Exchange is able to obtain information regarding trading in the Shares and the underlying bitcoin or any bitcoin derivative through ETP Holders acting as registered Market Makers, in connection with such ETP Holders' proprietary or customer trades through ETP Holders which they effect on any relevant market.

The proposed rule change is designed to promote just and equitable principles of trade and to protect investors and the public interest in that there is a considerable amount of bitcoin price and bitcoin market information available on public websites and through professional and subscription services. Investors may obtain on a 24-hour basis bitcoin pricing information based on the spot price for bitcoin from various financial information service providers. The closing price and settlement prices of bitcoin are readily available from the bitcoin exchanges and other publicly available websites. In addition, such prices are published in public sources, or on-line information services such as Bloomberg and Reuters. The Trust will provide website disclosure of its bitcoin holdings daily. Quotation and last-sale information regarding the Shares will be disseminated through the facilities of the CTA. The IIV will be widely disseminated on a per Share basis every 15 seconds during the NYSE Arca Core Trading Session (normally 9:30 a.m., E.T., to 4:00 p.m., E.T.) by one or more major market data vendors. In addition, the IIV will be available through on-line information services. The Exchange represents that the Exchange may halt trading during the day in which an interruption to the dissemination of the IIV or the Index spot price occurs. If the interruption to the dissemination of the IIV or the Index spot price persists past the trading day in which it occurred, the Exchange will halt trading no later than the beginning of the trading day following the interruption. In addition, if the Exchange becomes aware that the Bitcoin Holdings with respect to the Shares is not disseminated to all market participants at the same time, it will halt trading in the Shares until such time as the Bitcoin Holdings is available to all market participants. The Bitcoin Holdings per Share will be calculated daily and made available to all market participants at the same time. One or more major market data vendors will disseminate for the Trust on a daily basis information with respect to the most recent Bitcoin Holdings per Share and Shares outstanding.

The proposed rule change is designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the listing and trading of an additional type of exchange-traded product

that will enhance competition among market participants, to the benefit of investors and the marketplace. As noted above, the Exchange has in place surveillance procedures relating to trading in the Shares and may obtain information via ISG from other exchanges that are members of ISG or with which the Exchange has entered into a CSSA. In addition, as noted above, investors will have ready access to information regarding the Trust's bitcoin holdings, IIV and quotation and last sale information for the Shares.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange notes that the proposed rule change will facilitate the listing and trading of an additional type of exchange-traded product, and the first such product based on bitcoin, which will enhance competition among market participants, to the benefit of investors and the marketplace.

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

Written comments on the proposed rule change were neither solicited nor received.

6. Extension of Time Period for Commission Action

The Exchange does not consent to an extension of the time period specified in Section 19(b)(2) of the Act.

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

Not applicable.

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

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

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

Not applicable.

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

Not applicable.

11. Exhibits

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

Exhibit 3, Item 1 – Chart titled “Rolling 3-Month Volatility”

Exhibit 3, Item 2 – Chart titled “Average of 3-Month Correlation with Bitcoin”

Exhibit 3, Item 3 – Chart titled “Rolling 6-Month Volatility”

Exhibit 3, Item 4 – Chart titled “Average 6-Month Correlation with Bitcoin”

Exhibit 3, Item 5 – Chart titled “Rolling 12-Month Volatility”

Exhibit 3, Item 6 – Chart titled “Average 12-Month Correlation with Bitcoin”

## SECURITIES AND EXCHANGE COMMISSION

(Release No. 34- ; File No. SR-NYSEARCA-2017-06, Amendment No. 1)

[Date]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing of Proposed Rule Change Relating to the Listing and Trading Shares of the Biotin Investment Trust under NYSE Arca Equities Rule 8.201

Pursuant to Section 19(b)(1)<sup>1</sup> of the Securities Exchange Act of 1934 (the “Act”)<sup>2</sup> and Rule 19b-4 thereunder,<sup>3</sup> notice is hereby given that, on April 6, 2017, NYSE Arca, Inc. (the “Exchange” or “NYSE Arca”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

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

The Exchange proposes to list and trade shares of the following under NYSE Arca Equities Rule 8.201: Bitcoin Investment Trust (“Trust”). The proposed rule change is available on the Exchange’s website at [www.nyse.com](http://www.nyse.com), at the principal office of the Exchange, and at the Commission’s Public Reference Room.

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

In its filing with the Commission, the self-regulatory organization included

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<sup>1</sup> 15 U.S.C.78s(b)(1).

<sup>2</sup> 15 U.S.C. 78a.

<sup>3</sup> 17 CFR 240.19b-4.

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

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

1. Purpose

Under NYSE Arca Equities Rule 8.201, the Exchange may propose to list and/or trade pursuant to unlisted trading privileges (“UTP”) “Commodity-Based Trust Shares.”<sup>4</sup> The Exchange proposes to list and trade shares (“Shares”) of the Trust pursuant to NYSE Arca Equities Rule 8.201.<sup>5</sup>

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<sup>4</sup> Commodity-Based Trust Shares are securities issued by a trust that represent investors’ discrete identifiable and undivided beneficial ownership interest in the commodities deposited into the Trust.

<sup>5</sup> On March 24, 2017, the Trust filed Amendment No. 1 to its registration statement (“Registration Statement”) on Form S-1 under the Securities Act of 1933 (15 U.S.C. 77a) (File No. 333-215627). The descriptions of the Trust, the Shares and bitcoin contained herein are based, in part, on the Registration Statement.

This Amendment No. 1 to SR-NYSEArca-2017-06 replaces SR-NYSEArca-2017-06 as originally filed and supersedes such filing in its entirety.

On March 4, 2016, the Trust submitted to the Commission an amended Form D as a business trust. Shares of the Trust have been quoted on OTC Market’s OTCQX Best Marketplace under the symbol “GBTC” since March 26, 2015. On November 11, 2016, the Trust also published a quarterly report for GBTC for the period ended September 30, 2016, which can be found on OTC Market’s website: <http://www.otcmarkets.com/stock/GBTC/filings>. The Shares will be of the same class and will have the same rights as shares of GBTC. Effective October 28, 2014, the Trust suspended its redemption program for shares of GBTC, in which shareholders were permitted to request the redemption of their shares through Genesis Global Trading, Inc. (formerly known as SecondMarket, Inc.), an affiliate of the Sponsor and the Trust (“Genesis”). According to the Sponsor, freely

The sponsor of the Trust is Grayscale Investments, LLC (“Sponsor”), a Delaware limited liability company. The Sponsor is a wholly-owned subsidiary of Digital Currency Group, Inc. (“Digital Currency Group”). The trustee for the Trust is Delaware Trust Company (“Trustee”). The Bank of New York Mellon will be the Trust’s transfer agent (in such capacity, “Transfer Agent”) and the administrator of the Trust (in such capacity, “Administrator”). Xapo Inc. is the custodian for the Trust (“Custodian”).<sup>6</sup> ALPS Portfolio Solutions Distributor, Inc. will be the marketing agent for the Trust (“Marketing Agent”).

The Trust is a Delaware statutory trust, organized on September 13, 2013, that operates pursuant to a trust agreement between the Sponsor and the Trustee. The Trust has no fixed termination date.

According to the Registration Statement, each Share will represent a proportional interest, based on the total number of Shares outstanding, in the bitcoins held by the Trust, less the Trust’s liabilities, which include accrued but unpaid fees and expenses. The Trust’s assets will consist solely of bitcoins held on the Trust’s behalf by the Custodian. The Trust has not had a cash balance at any time since inception. When selling bitcoins to pay expenses, the Sponsor will endeavor to sell the exact number of bitcoins needed to pay expenses in order to minimize the Trust’s holdings of assets other

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tradeable shares of GBTC will remain unregistered freely tradeable Shares on the date of the listing of the Shares unless, if authorized by the Trust, holders of GBTC sell the shares in the initial public offering. Restricted shares of GBTC will remain subject to private placement restrictions and the holders of such restricted shares may either (i) continue to hold those shares subject to those restrictions or (ii) if authorized by the Trust, sell the restricted shares in the initial public offering.

<sup>6</sup> According to the Registration Statement, Digital Currency Group owns a minority interest in the Custodian that represents less than 1.0% of the Custodian’s equity.

than bitcoin. As a consequence, the Trust expects that it will not record any cash flow from its operations and that its cash balance will be zero at the end of each reporting period.

The activities of the Trust will be limited to (i) issuing “Baskets” (as defined below) in exchange for bitcoins deposited by the “Authorized Participants” (as defined below) or “Liquidity Providers” (as defined below), as applicable, with the Custodian as consideration, (ii) transferring actual bitcoins as necessary to cover the Sponsor’s management fee and selling bitcoins as necessary to pay certain other fees that are not contractually assumed by the Sponsor, (iii) transferring actual bitcoins in exchange for Baskets surrendered for redemption by the Authorized Participants, (iv) causing the Sponsor to sell bitcoins on the termination of the Trust and (v) engaging in all administrative and custodial procedures necessary to accomplish such activities in accordance with the provisions of applicable agreements. The Trust is not actively managed. It will not engage in any activities designed to obtain a profit from, or to ameliorate losses caused by, changes in the market price of bitcoins.

According to the Registration Statement, the Trust is neither an investment company registered under the Investment Company Act of 1940, as amended, (“1940 Act”)<sup>7</sup> nor a commodity pool for purposes of the Commodity Exchange Act,<sup>8</sup> and neither the Sponsor nor the Trustee is subject to regulation as a commodity pool operator or a commodity trading adviser in connection with the Shares.

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<sup>7</sup> 15 U.S.C. 80a-1.

<sup>8</sup> 17 U.S.C. 1.

### **Investment Objective**

According to the Registration Statement, and as further described below, the investment objective of the Trust will be for the Shares to reflect the performance of the value of a bitcoin as represented by the TradeBlock XBX Index (“Index”),<sup>9</sup> less the Trust’s liabilities and expenses.

The Shares are designed to provide investors with a cost-effective and convenient way to invest in bitcoin. A substantial direct investment in bitcoins may require expensive and sometimes complicated arrangements in connection with the acquisition, security and safekeeping of the bitcoins and may involve the payment of substantial fees to acquire such bitcoins from third-party facilitators through cash payments of U.S. dollars. Although the Shares will not be the exact equivalent of a direct investment in bitcoins, they will provide investors with an alternative that constitutes a relatively cost-effective way to participate in bitcoin markets through the securities market.

### **Overview of the Bitcoin Industry and Market**

The following is a brief introduction to the bitcoin industry and the bitcoin market based on information provided in the Registration Statement.

#### The Bitcoin Network

A bitcoin is a decentralized digital currency that is issued by, and transmitted through, an open-source digital protocol platform using cryptographic security that is known as the “Bitcoin Network.” The Bitcoin Network is an online, peer-to-peer user

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<sup>9</sup> The Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin based on the volume-weighted price at trading venues selected by TradeBlock, Inc. (“Index Provider”). According to the Registration Statement, Digital Currency Group, Inc. owns approximately 2.4% of the Index Provider’s voting equity and warrants representing approximately 1.4% of the Index Provider’s voting equity. See “Bitcoin Index Price” below.

network that hosts a public transaction ledger, known as the “Blockchain,” and the source code that comprises the basis for the cryptography and digital protocols governing the Bitcoin Network. No single entity owns or operates the Bitcoin Network, the infrastructure of which is collectively maintained by a decentralized user base. Bitcoins can be used to pay for goods and services or can be converted to fiat currencies, such as the U.S. dollar, at rates determined on electronic marketplaces where exchange participants may first use fiat currency to trade, buy and sell bitcoins based on bid-ask trading (“Bitcoin Exchanges”) or in individual end-user-to-end-user transactions under a barter system.

The Blockchain is comprised of a digital file, downloaded and stored, in whole or in part, on all bitcoin users’ software programs. The file includes all “blocks” that have been solved by miners and is updated to include new blocks as they are solved. As each newly solved block refers back to and “connects” with the immediately prior solved block, the addition of a new block adds to the Blockchain in a manner similar to a new link being added to a chain. Because each new block records outstanding bitcoin transactions, and outstanding transactions are settled and validated through such recording, the Blockchain represents a complete, transparent and unbroken history of all transactions on the Bitcoin Network.

Bitcoins are “stored” or reflected on the Blockchain. The Blockchain records the transaction history of all bitcoins in existence and, through the transparent reporting of transactions, allows the Bitcoin Network to verify the association of each bitcoin with the digital wallet that owns them. The Bitcoin Network and bitcoin software programs can

interpret the Blockchain to determine the exact bitcoin balance of any digital wallet listed in the Blockchain as having taken part in a transaction on the Bitcoin Network.

In order to own, transfer or use bitcoins, a person generally must have internet access to connect to the Bitcoin Network. Bitcoin transactions between parties occur rapidly (typically between a few seconds and a few minutes) and may be made directly between end-users without the need for a third-party intermediary, although there are entities that provide third-party intermediary services. To prevent the possibility of double-spending a single bitcoin, each transaction is recorded, time stamped and publicly displayed in a block in the publicly available Blockchain. Thus, the Bitcoin Network provides confirmation against double-spending by memorializing every transaction in the Blockchain, which is publicly accessible and downloaded in part or in whole by all users' Bitcoin Network software programs as described above.

The Bitcoin Network is decentralized and does not rely on either governmental authorities or financial institutions to create, transmit or determine the value of bitcoins. Rather, bitcoins are created and allocated by the Bitcoin Network protocol through a "mining" process subject to a strict, well-known issuance schedule. The value of bitcoins is determined by the supply of and demand for bitcoins in the bitcoin exchange market (and in private end-user-to-end-user transactions), as well as the number of merchants that accept them. As bitcoin transactions can be broadcast to the Bitcoin Network by any user's bitcoin software and bitcoins can be transferred without the involvement of intermediaries or third parties, there are little or no transaction costs in direct peer-to-peer transactions on the Bitcoin Network. Third-party service providers such as Bitcoin Exchanges and bitcoin third-party payment processing services may charge significant

fees for processing transactions and for converting, or facilitating the conversion of, bitcoins to or from fiat currency.

“Off-Blockchain transactions” involve the transfer of control over, or ownership of, a specific digital wallet holding bitcoins, or of the reallocation of ownership of certain bitcoins in a pooled-ownership digital wallet, such as a digital wallet owned by a Bitcoin Exchange. Off-Blockchain transactions are not truly bitcoin transactions in that they do not involve the transfer of transaction data on the Bitcoin Network and do not reflect a movement of bitcoins between addresses recorded in the Blockchain. Information and data regarding Off-Blockchain transactions are generally not publicly available in contrast to “true” bitcoin transactions, which are publicly recorded on the Blockchain. Off-Blockchain transactions are subject to risks as any such transfer of bitcoin ownership is not protected by the protocol behind the Bitcoin Network or recorded in and validated through the Blockchain mechanism.

#### Overview of Bitcoin Transactions

Prior to engaging in bitcoin transactions, a user must first obtain a digital bitcoin “wallet” (analogous to a bitcoin account) in which to store bitcoins. A wallet can be obtained, among other ways, through an open-source software program that generates bitcoin addresses and enables users to engage in the transfer of bitcoins with other users. A user may install a bitcoin software program on a computer or mobile device that will generate a bitcoin wallet or, alternatively, a user may retain a third party to create a digital wallet to be used for the same purpose. There is no limit on the number of digital wallets a user can have, and each such wallet includes one or more unique addresses and

a verification system for each address consisting of a “public key” and a “private key,” which are mathematically related.

In a typical bitcoin transaction, the bitcoin recipient must provide the spending party with the recipient’s digital wallet address, an identifying series of 27 to 34 alphanumeric characters that represents the wallet’s routing number on the Bitcoin Network and allows the Blockchain to record the sending of bitcoins to the recipient’s wallet. The receiving party can provide this address to the spending party in alphanumeric format or an encoded format such as a Quick Response Code (commonly known as a QR Code), which may be scanned by a smartphone or other device to quickly transmit the information. This activity is analogous to a recipient providing an address in wire instructions to the payor so that cash may be wired to the recipient’s account.

After the provision of the receiving wallet’s digital address, the spending party must enter the address into its bitcoin software program along with the number of bitcoins to be sent. The number of bitcoins to be sent will typically be agreed upon between the two parties based on a set number of bitcoins or an agreed upon conversion of the value of fiat currency to bitcoins. Most bitcoin software programs also allow, and often suggest, the payment of a transaction fee (also known as a miner’s fee). Transaction fees are not required to be included by many bitcoin software programs, but, when they are included, they are paid by the spending party on top of the specified amount of bitcoins being sent in the transaction. Transaction fees, if any, are typically a fractional number of bitcoins (for example, 0.005 or 0.0005 bitcoins) and are automatically transferred by the Bitcoin Network to the bitcoin miner that solves and adds the block recording the spending transaction on the Blockchain.

After the entry of the receiving wallet's address, the number of bitcoins to be sent and the transaction fees, if any, to be paid, the spending party will transmit the spending transaction. The transmission of the spending transaction results in the creation of a data packet by the spending party's bitcoin software program. The data packet includes data showing (i) the receiving wallet's address, (ii) the number of bitcoins being sent, (iii) the transaction fees, if any, and (iv) the spending party's digital signature, verifying the authenticity of the transaction. The data packet also includes references called "inputs" and "outputs," which are used by the Blockchain to identify the source of the bitcoins being spent and record the flow of bitcoins from one transaction to the next transaction in which the bitcoins are spent. The digital signature exposes the spending party's digital wallet address and public key to the Bitcoin Network, though, for the receiving party, only its digital wallet address is revealed. The spending party's bitcoin software will transmit the data packet onto the decentralized Bitcoin Network, resulting in the propagation of the information among the software programs of bitcoin users across the Bitcoin Network for eventual inclusion in the Blockchain. Typically, the data will spread to a vast majority of bitcoin miners within the course of less than one minute.

Bitcoin miners record transactions when they solve for and add blocks of information to the Blockchain. When a miner solves for a block, it creates that block, which includes data relating to (i) the solution to the block, (ii) a reference to the prior block in the Blockchain to which the new block is being added and (iii) all transactions that have occurred but have not yet been added to the Blockchain. The miner becomes aware of outstanding, unrecorded transactions through the data packet transmission and propagation discussed above. Typically, bitcoin transactions will be recorded in the next

chronological block if the spending party has an internet connection and at least one minute has passed between the transaction's data packet transmission and the solution of the next block. If a transaction is not recorded in the next chronological block, it is usually recorded in the next block thereafter.

Bitcoin transactions that are micropayments (typically, less than 0.01 bitcoins) and that do not include transaction fees to miners are currently deprioritized for recording, meaning that, depending on bitcoin miner policies, these transactions may take longer to record than typical transactions if the transactions do not include a transaction fee. Additionally, transactions initiated by spending wallets with poor connections to the Bitcoin Network (i.e., few or poor quality connections to nodes or "supernodes" that relay transaction data) may be delayed in the propagation of their transaction data and, therefore, transaction recording on the Blockchain. Finally, to the extent that a miner chooses to limit the transactions it includes in a solved block (whether by the payment of transaction fees or otherwise), a transaction not meeting that miner's criteria will not be included.

To the extent that a transaction has not yet been recorded, there is a greater chance that the spending wallet can double-spend the bitcoins sent in the original transaction. If the next block solved is by an honest miner not involved in the attempt to double-spend bitcoin and if the transaction data for both the original and double-spend transactions have been propagated onto the Bitcoin Network, the transaction that is received with the earlier time stamp will be recorded by the solving miner, regardless of whether the double-spending transaction includes a larger transaction fee. If the double-spend transaction propagates to the solving miner and the original transaction has not, then the

double-spending has a greater chance of success. As a result of the high difficulty in successfully initiating a double-spend without the assistance of a coordinated attack, the probability of success for a double-spend transaction attempt is limited.

Upon the addition of a block included in the Blockchain, the bitcoin software program of both the spending party and the receiving party will show confirmation of the transaction on the Blockchain and reflect an adjustment to the bitcoin balance in each party's digital wallet, completing the bitcoin transaction. Typically, bitcoin software programs will automatically check for and display additional confirmations of six or more blocks in the Blockchain.

To ensure the integrity of bitcoin transactions from the recipient's side (i.e., to prevent double-spending by a payor), every bitcoin transaction is broadcast to the Bitcoin Network and recorded in the Blockchain through the mining process, which time-stamps the transaction and memorializes the change in the ownership of the bitcoin(s) transferred. Adding a block to the Blockchain requires bitcoin miners to exert significant computational effort to verify it is a valid transaction. According to the Registration Statement, requiring this computational effort, or "proof of work," prevents a malicious actor from either adding fraudulent blocks to generate bitcoins (i.e., counterfeit bitcoins) or overwriting existing valid blocks to reverse its prior transactions.

A transaction in bitcoins between two parties is recorded in the Blockchain in a block only if that block is accepted as valid by a majority of the nodes on the Bitcoin Network. Validation of a block is achieved by confirming the cryptographic "hash value" included in the block's solution and by the block's addition to the longest confirmed Blockchain on the Bitcoin Network. For a transaction, inclusion in a block on

the Blockchain constitutes a “confirmation” of the bitcoin transaction. As each block contains a reference to the immediately preceding block, additional blocks appended to and incorporated into the Blockchain constitute additional confirmations of the transactions in such prior blocks, and a transaction included in a block for the first time is confirmed once against double-spending. The layered confirmation process makes changing historical blocks (and reversing transactions) exponentially more difficult the further back one goes in the Blockchain. Bitcoin Exchanges and users can set their own threshold as to how many confirmations are required until funds from the transferor are considered valid. However, statistically speaking, a transaction is virtually final after six confirmations as it would be extremely difficult to challenge the validity of the transaction at that point.

According to the Registration Statement, at this point in the evolution of the Bitcoin Network, bitcoin transactions are considered irreversible. Once a transaction appears in the Blockchain, no one has the authority to reverse it. If someone were to attempt to undo a past transaction in a block recorded on the Blockchain, such individual would have to exert tremendous processing power in a series of complicated transactions that may not be achieved at this point in the Bitcoin Network’s development.

#### Bitcoin Security and Storage

According to the Registration Statement, all transactions on the Bitcoin Network are secured using public-key cryptography, a technique which underpins many online transactions. Public-key cryptography works by generating two mathematically related keys (one a public key and the other a private key). One of these, the private key, is retained in the individual’s digital wallet and the other key is made public and serves as

the address to which bitcoin(s) can be transferred and from which money can be transferred by the owner of the bitcoin wallet. In the case of bitcoin transactions, the public key is an address (a string of letters and numbers) that is used to encode payments, which can then only be retrieved with its associated private key, which is used to authorize the transaction. In other words, the payor uses his private key to approve any transfers to a recipient's account. Users on the Bitcoin Network can confirm that the user signed the transaction with the appropriate private key, but cannot reverse engineer the private key from the signature.

According to the Registration Statement, the Custodian is responsible for keeping the private key or keys that provide access to the Trust's digital wallets and vaults secure. Pursuant to a request from the Sponsor or the Trust, the Custodian will establish and maintain an account with one or more wallets ("Wallet Account") and one or more cold-storage vault accounts ("Vault Account" and, together with the Wallet Account and any subaccounts associated therewith, the "Bitcoin Account") in the name of the Sponsor and the Trust. The Custodian deposits and withdraws bitcoins to and from the Bitcoin Account at the instruction of the Sponsor. The Custodian is responsible for administering the Bitcoin Account.

The Bitcoin Account is maintained by the Custodian and cold storage mechanisms are used for the Vault Account by the Custodian. Each digital wallet of the Trust may be accessed using its corresponding private key. The Custodian's custodial operations maintain custody of the private keys that have been deposited in cold storage at its various vaulting premises which are located in geographically dispersed locations across the world, including but not limited to the United States, Europe (including

Switzerland) and South America. According to the Registration Statement, the locations of the vaulting premises change regularly and are kept confidential by the Custodian for security purposes.

The term “cold storage” refers to a safeguarding method by which the private keys corresponding to bitcoins stored on a digital wallet are removed from any computers actively connected to the internet. Cold storage of private keys may involve keeping such wallet on a non-networked computer or electronic device or storing the public key and private keys relating to the digital wallet on a storage device (for example, a USB thumb drive) or printed medium (for example, papyrus or paper) and deleting the digital wallet from all computers. According to the Registration Statement, most of the private keys in the Wallet Account and all of the private keys in the Vault Account are kept in cold storage. A digital wallet may receive deposits of bitcoins but may not send bitcoins without use of the bitcoins’ corresponding private keys. In order to send bitcoin from a digital wallet in which the private keys are kept in cold storage, either the private keys must be retrieved from cold storage and entered into a bitcoin software program to sign the transaction, or the unsigned transaction must be sent to the “cold” server in which the private keys are held for signature by the private keys. At that point, the user of the digital wallet can transfer its bitcoins.

According to the Registration Statement, the Custodian is the custodian of the Trust’s private keys and will utilize certain security procedures such as algorithms, codes, passwords, encryption or telephone call-backs in the administration and operation of the Trust and the safekeeping of its bitcoins and private keys. The Custodian has created a Vault Account for the Trust assets in which private keys are placed in cold storage.

According to the Registration Statement, the Custodian segregates the private keys stored with it from any other assets it holds or holds for others.

According to the Registration Statement, multiple distinct private keys must sign any transaction in order to transfer the Trust's bitcoins from a multi-signature address to any other address on the Bitcoin blockchain. Distinct private keys required for multi-signature address transfers reside in geographically dispersed vault locations. The Custodian refers to these vault locations, where transactions are signed by private keys, as "signing vaults." In addition to multiple signing vaults, the Custodian maintains multiple "back-up vaults" in which backup private keys are stored. According to the Registration Statement, in the event that one or more of the "signing vaults" were to be compromised, back-up vaults can be activated and used as signing vaults to complete a transaction within 72 hours.

Therefore, according to the Registration Statement, if any one signing vault were to be compromised, it would have no impact on the ability of the Trust to access its bitcoins, other than a possible delay in operations of 72 hours, while one or more of the back-up vaults was transitioned to a signing vault. According to the Registration Statement, these security procedures ensure that there is no single point of failure in the protection of the Trust's assets.

The Custodian is authorized to accept, on behalf of the Trust, deposits of bitcoins from "Authorized Participant Self-Administered Accounts" (as defined below) or "Liquidity Provider Accounts" (as defined below), as applicable, held with the Custodian and transfer such bitcoins into the Bitcoin Account. Deposits of bitcoins will be immediately available to the Trust to the extent such bitcoins have not already been

transferred to the Vault Account. Bitcoins transferred to the Bitcoin Account will be directly deposited into digital wallets for which the keys are already in cold storage.

According to the Registration Statement, if bitcoins need to be withdrawn from the Trust in connection with a redemption, the Custodian will ensure that the private keys to those bitcoins sign the withdrawal transaction.

#### Bitcoin Mining and Creation of New Bitcoins

According to the Registration Statement, the process by which bitcoins are created and bitcoin transactions are verified is called mining.<sup>10</sup> To begin mining, a miner can download and run a mining client, which, like regular Bitcoin Network software programs, turns the user's computer into a "node" on the Bitcoin Network that validates blocks. Bitcoin transactions are recorded in new blocks that are added to the Blockchain and new bitcoins being issued to the miners. Miners, through the use of the bitcoin software program, engage in a set of prescribed complex mathematical calculations in order to add a block to the Blockchain and thereby confirm bitcoin transactions included in that block's data.

In order to add blocks to the Blockchain, a miner must map an input data set (i.e., the Blockchain, plus a block of the most recent Bitcoin Network transactions and an arbitrary number called a "nonce") to a desired output data set of a predetermined length, i.e., a hash value, using the SHA-256 cryptographic hash algorithm. Each unique block can only be solved and added to the Blockchain by one miner; therefore, all individual miners and mining pools on the Bitcoin Network are engaged in a competitive process of constantly increasing their computing power to improve their likelihood of solving for

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<sup>10</sup> None of the Trust, Sponsor or Genesis currently participates in mining or has plans to engage in mining in the future.

new blocks. According to the Registration Statement, as more miners join the Bitcoin Network and its processing power increases, the Bitcoin Network adjusts the complexity of the block-solving equation to maintain a predetermined pace of adding a new block to the Blockchain approximately every ten minutes.

A miner's proposed block is added to the Blockchain once a majority of the nodes on the Bitcoin Network confirms the miner's work. Miners that are successful in adding a block to the Blockchain are automatically awarded bitcoins for their effort plus any transaction fees paid by transferors whose transactions are recorded in the block. This reward system is the method by which new bitcoins enter into circulation to the public.

The supply of new bitcoins is mathematically controlled in a manner so that the number of bitcoins grows at a limited rate pursuant to a pre-set schedule. The number of bitcoins awarded for solving a new block is automatically halved after every 210,000 blocks are added to the Blockchain. Recently, in July 2016, the fixed reward for solving a new block decreased from 25 bitcoins to 12.5 bitcoins per block and this is expected to decrease by half to become 6.25 bitcoins after the next 210,000 blocks have entered the Bitcoin Network, which is expected to be July 2020. This deliberately controlled rate of bitcoin creation means that the number of bitcoins in existence will increase at a controlled rate until the number of bitcoins in existence reaches the pre-determined 21 million bitcoins. According to the Registration Statement, as of March 15, 2017, approximately 16.22 million bitcoins have been mined, and estimates of when the 21 million bitcoin limitation will be reached range up to the year 2140.

#### Bitcoin Exchanges

According to the Registration Statement, due to the peer-to-peer framework of the

Bitcoin Network and the protocols thereunder, transferors and recipients of bitcoins are able to determine the value of the bitcoins transferred by mutual agreement or barter with respect to their transactions. As a result, the most common means of determining the value of a bitcoin is by surveying one or more Bitcoin Exchanges where bitcoins are bought, sold and traded. On each Bitcoin Exchange, bitcoins are traded with publicly disclosed valuations for each transaction, measured by one or more fiat currencies such as the U.S. dollar or the Chinese yuan.

According to the Registration Statement, historically, a large percentage of the global trading volume occurred on self-reported, unregulated exchanges located in China. In January 2017, some of the largest China-based Bitcoin Exchanges implemented certain adjustments to their terms, including the introduction of a 0.2% fixed-rate transaction fee for all bitcoin buy and sell orders. In February 2017, certain smaller China-based Bitcoin Exchanges also imposed or increased trading fees on their respective exchanges. In the subsequent weeks, some of the largest China-based Bitcoin Exchanges halted bitcoin withdrawals. According to the Registration Statement, these events have substantially reduced the volume traded on Chinese exchanges and changed the global liquidity profile for bitcoins.

For example, according to the Registration Statement, from May 10, 2015 to January 24, 2017, the three primary China-based Bitcoin Exchanges, BTCC, Huobi and OKCoin, reported a total trade volume of approximately 1.35 billion bitcoins and an average daily trade volume of 2.16 million bitcoins, comprising more than 95% of the global exchange-traded volume based on data from the Index Provider. According to the Registration Statement, during this period, the exchanges that comprised the Index,

reported a total trade volume of 33.03 million bitcoins and an average daily trade volume of approximately 53,000 bitcoins, accounting for approximately 2.3% of the global exchange-traded volume and 78.5% of the U.S. dollar-denominated trade volume.

However, according to the Registration Statement, from January 25, 2017 to March 15, 2017, following the introduction of fixed-rate transaction fees in response, the three primary China-based Bitcoin Exchanges, BTCC, Huobi and OKCoin, reported a total trade volume of approximately 1.35 million bitcoins and an average daily trade volume of approximately 27,000 bitcoins, comprising only 25.2% of the global exchange-traded volume based on data from the Index Provider. During this period, the exchanges that comprised the Index, reported a total trade volume of approximately 1.89 million bitcoins and an average daily trade volume of nearly 39,000 bitcoins, accounting for 35.2% of the global exchange-traded volume and 73.6% of the U.S. dollar-denominated trade volume.

According to the Registration Statement, similar to other currency pairs, such as euro to bitcoin, movements in pricing on the Chinese exchanges are generally in line with U.S. dollar-denominated exchanges. For example, according to the Registration Statement, based on data from the Index Provider, from May 10, 2015 to March 15, 2017, the 4:00 p.m., Eastern Time (“E.T.”), spot price on the three primary Chinese yuan-denominated exchanges (BTC China, Huobi and OKCoin) differed from the “Bitcoin Index Price” (as defined below) by only 1.6% on average.

According to the Registration Statement, bitcoin price indexes have also been developed by a number of service providers in the bitcoin space. For example, Coindesk, a digital currency content provider and wholly-owned subsidiary of Digital Currency

Group, launched a proprietary bitcoin price index in September 2013, and bitcoinaverage.com provides an average of all bitcoin prices on several Bitcoin Exchanges. The Sponsor uses the Index calculated by the Index Provider to determine the “Bitcoin Index Price,” as described below under “Bitcoin Index Price.”

Currently, there are numerous Bitcoin Exchanges operating worldwide in a number of currency pairs including, among others, bitcoin to U.S. dollar, bitcoin to euro, bitcoin to Chinese yuan and bitcoin to Indian rupee. According to the Registration Statement, most of the data with respect to prevailing valuations of bitcoin come from such Bitcoin Exchanges. These exchanges include established exchanges such as Bitstamp, GDAX and Bitfinex, which provide a number of options for buying and selling bitcoins. Among the Bitcoin Exchanges eligible for inclusion in the Index, domicile, regulation and legal compliance varies.

The table below sets forth (1) the aggregate number of bitcoin trades made on the eight largest U.S. dollar-denominated Bitcoin Exchanges by trade volume from May 10, 2015 to March 15, 2017 and (2) the market share of trade volume of each such Bitcoin Exchange.

<b>Eight Largest U.S. Dollar-Denominated Bitcoin Exchanges by Trade Volume</b> <sup>11</sup>	<b>Volume (BTC)</b> <sup>12,13</sup>	<b>Market Share</b>
<i>Bitcoin Exchanges included in the Index as of March 15, 2017</i>		
Bitfinex .....	13,953,081	32.10%
BitStamp .....	6,447,743	14.83%
GDAX (formerly known as Coinbase Exchange) .....	4,874,681	11.22%
ItBit .....	3,275,893	7.54%
<b>Total U.S. dollar-bitcoin trade volume included in the Index as of March 15, 2017</b> .....	<b>28,551,399</b>	<b>65.69%</b>
<i>Bitcoin Exchanges not included in the Index as of March 15, 2017</i>		
OKCoin .....	6,444,440	14.83%
BTC-E .....	4,643,767	10.68%
LakeBTC .....	2,978,524	6.85%
Gemini.....	846,464	1.95%
<b>Total U.S. dollar-bitcoin trade volume not included in the Index as of March 15, 2017</b> .....	<b>14,913,196</b>	<b>34.31%</b>
<b>Total U.S. Dollar-bitcoin trade volume</b>	<b>43,464,594</b>	<b>100.00%</b>

Information regarding each Bitcoin Exchange may be found, where available, on the websites for such Bitcoin Exchanges, among other places.

#### Off-Exchange Bitcoin Trading

According to the Registration Statement, in addition to open online Bitcoin Exchanges, there are “dark pools,” which are bitcoin trading platforms that do not

<sup>11</sup> According to the Registration Statement, although the Bitcoin Exchange, LocalBitcoins, accounts for approximately 3% of the U.S. dollar-bitcoin trade volume, the Sponsor does not consider it an appropriate Bitcoin Exchange to include in this analysis because LocalBitcoins does not have an online electronic trading platform that allows for the prices and volumes of bitcoin traded to be reliably tracked.

<sup>12</sup> According to the Registration Statement, these figures reflect the aggregate number of bitcoins traded on each named U.S. dollar-denominated Bitcoin Exchange from May 10, 2015 to March 15, 2017.

<sup>13</sup> According to the Registration Statement, as of May 10, 2015, Kraken EUR (U.S. dollar equivalent) was a component of the Index but was removed from the Index on May 11, 2015. The transactions on Kraken EUR were not a material component to the Index.

publicly report bitcoin trade data. Market participants have the ability to execute large block trades on a dark pool without revealing those trades and the related price data to the public bitcoin exchange market, although any withdrawal from or deposit to a dark pool platform may be recorded on the Blockchain.<sup>14</sup>

Bitcoin may also be traded over-the-counter (“OTC”). OTC trades are not required to be reported through any facilities. However, according to the Sponsor, based on publicly available information, OTC trading may not represent a material volume of overall bitcoin trading. The OTC markets operate in a similar manner to dark pools. However, typically, OTC trades are institutional size block transactions (though on a much lower scale relative to the size of block transactions for other commodities or industries) or transactions made on behalf of high-net worth individuals.

According to the Sponsor, some OTC intermediaries that facilitate OTC trading, such as Genesis and itBit, provide summary statistics on an ad hoc basis. For instance, in April 2016, itBit reported that it had traded approximately 25,500 bitcoins, valued at approximately \$10.3 million U.S. dollars, which would account for roughly 1.94% of the bitcoin trading volume across the eight highest volume U.S. dollar-denominated exchanges. For the fourth quarter of 2016, Genesis reported trading approximately 70,326 bitcoins, valued at approximately \$51.4 million U.S. dollars. According to the Sponsor, the reported Genesis volume would comprise roughly 2.33% of the trading

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<sup>14</sup> According to the Registration Statement, Genesis operates an OTC trading desk that buys and sells large blocks of bitcoins without publicly reporting trade data. Informal dark pools are currently believed to exist, particularly among wholesale buyers of bitcoin and bitcoin mining groups that obtain large supplies of bitcoin through mining. Such informal dark pools function as a result of the peer-to-peer nature of the Bitcoin Network, which allows direct transactions between any seller and buyer.

volume across the eight highest volume U.S. dollar-denominated exchanges during that time period.

Bitcoin Price Volatility<sup>15</sup>

According to the Sponsor, volatility in bitcoin was pronounced in its earliest days through late 2013. According to the Sponsor, during that time period, almost all bitcoin trading activity centered on two exchanges, which centralized the global order book and led to large price movements. Since then, the bitcoin trading environment has matured with the development of dozens of exchanges around the world, resulting in more transparency with respect to bitcoin pricing, in increased trading volume and in greater liquidity. Additionally, the globalization of bitcoin exchanges, ranging from those domiciled in the United States to other areas of the globe, such as China, has led to development of many bitcoin currency pairs, garnering more market participants. Today, the largest trading pairs are bitcoin to Chinese yuan, bitcoin to U.S. dollars and bitcoin to euro.

Bitcoin price volatility has declined since the inception of bitcoin. According to the Sponsor and as detailed in Exhibit 3, recent figures, such as the three, six and twelve-month volatility charts, show that the volatility of bitcoin is now at levels comparable to those seen for other commodities such as natural gas and continues to trend downward.

According to the Sponsor, while bitcoin price volatility has declined and its volatility approximately corresponds to that of certain commodities, the volatility of

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<sup>15</sup> Attached as Exhibit 3 hereto are tables relating to: (i) rolling 3-month volatility of bitcoin and other commodities; (ii) average 3-month correlation of bitcoin to other commodities; (iii) rolling 6-month volatility of bitcoin and other commodities; (iv) average 6-month correlation of bitcoin to other commodities; (v) rolling 12-month volatility of bitcoin and other commodities; and (vi) average 12-month correlation of bitcoin to other commodities.

bitcoin is not correlated with the volatility of other commodities over shorter- (i.e., three to six months) and longer-term (i.e., longer than one year) investment horizons, reinforcing the important role bitcoin can play as a diversifying asset in an investor's portfolio.

#### Demand for Bitcoin

According to the Sponsor, demand for bitcoins is based on several factors.

Demand may be based on speculation regarding the future appreciation of the value of bitcoins. Continuing development of various applications utilizing the Bitcoin Network for uses such as remittance, payment for goods and services, recording transfer of ownership of certain assets and settlement of both financial and non-financial assets have led many investors to speculate that the price of bitcoins will appreciate as use of these applications increases. As additional applications are developed, demand may increase. Additionally, some investors have developed analogs between bitcoin and other scarce assets such as gold. Bitcoin shares many of the same characteristics as gold, e.g., scarcity, but has superior utility, portability and divisibility. If investors shift a portion of their asset allocations from gold to bitcoin, the demand for bitcoins could increase. Furthermore, bitcoins are used in day-to-day transactions for the purchase of goods and services. As additional merchants continue to accept bitcoins for the purchase of goods and services, demand for bitcoins may increase. Relatedly, as merchants accept bitcoins for sales of goods and services, supply of bitcoins could increase on the exchange markets as these merchants look to liquidate their bitcoin for fiat currencies.

#### Bitcoin Index Price

The "Bitcoin Index Price" is the U.S. dollar value of a bitcoin as represented by

the Index, calculated at 4:00 p.m., E.T., on each business day. If the Index becomes unavailable, or if the Sponsor determines in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Index Provider in order to obtain the Bitcoin Index Price. If after such contact the Index remains unavailable or the Sponsor continues to believe in good faith that the Index does not reflect an accurate bitcoin value, then the Administrator will utilize the following cascading set of rules to calculate the Bitcoin Index Price. For the avoidance of doubt, the Sponsor will employ the below rules sequentially and in the order presented below, should one or more specific rule(s) fail:

- (i) Bitcoin Index Price = The price set by the Index as of 4:00 p.m., E.T., on the valuation date. According to the Registration Statement, the Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin based on the volume-weighted price at trading venues selected by the Index Provider. Trading venues used to calculate the Index may include Bitcoin Exchanges, OTC markets or derivative platforms. According to the Registration Statement, to ensure that the Index Provider's trading venue selection process is impartial, the Index Provider considers depth of liquidity, compliance with applicable legal and regulatory requirements, data availability, U.S. domicile and acceptance of U.S. dollar deposits. The Index Provider conducts a quarterly review of these criteria. According to the Registration Statement, as of the date of the Registration Statement, the eligible Bitcoin Exchanges selected by the Index Provider include Bitfinex, Bitstamp, GDAX (formerly known as Coinbase

Exchange) and itBit.<sup>16</sup> Bitfinex is a trading platform based in Hong Kong for digital currencies, including bitcoin, that offers many advanced features such as margin and exchange trading and margin funding. Bitstamp is a European Union-based bitcoin marketplace that enables people from all around the world to safely buy and sell bitcoins. GDAX, based in San Francisco, California, is a digital currency exchange. itBit is a New York City-based, regulated global exchange that offers retail and institutional investors a powerful platform to buy and sell bitcoin. According to the Registration Statement, in the calculation of the Bitcoin Index Price, the Index Provider cleanses the trade data and compiles it in such a manner as to algorithmically reduce the impact of anomalous or manipulative trading. This is accomplished by adjusting the weight of each input based on price deviation relative to the observable set of data for the relevant trading venue, as well as recent and long-term trading volume at each venue relative to the observable set for the relevant trading venues. The Index Provider reduces the weighting of data inputs as they get further from the mean price across the trading venues and ultimately excludes any trade with a price that deviates beyond a certain predetermined threshold level from the mean. In addition, the Index groups “trade bursts” (i.e., a group of small-size trades in a short period of time, typically under one second) and movements during off-peak trading

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<sup>16</sup> According to the Registration Statement, Digital Currency Group owns a minority interest in Coinbase, which operates the GDAX, representing approximately 0.5% of its equity and a minority interest in Paxos, which operates itBit, representing less than 0.3% of its equity.

hours on any given venue into single data inputs, which reduces the potentially erratic price movements caused by small, individual orders.

The Index Provider formally reevaluates the weighting algorithm quarterly, but maintains discretion to change the way in which the Index is calculated based on its periodic review or in extreme circumstances. The precise formula underlying the Index is proprietary.

According to the Registration Statement, the Index Provider does not currently include data from OTC markets or derivative platforms. OTC data is not currently included because of the potential for trades to include a significant premium or discount paid for larger liquidity, which creates an uneven comparison relative to more active markets. There is also a higher potential for OTC transactions to not be arms-length and thus not be representative of a true market price. Bitcoin derivative markets are also not currently included as the markets remain relatively thin.

According to the Registration Statement, the Index Provider will consider International Organization of Securities Commissions (“IOSCO”) principles for financial benchmarks and the management of trading venues of bitcoin derivatives when considering inclusion of OTC or derivative platform data in the future.

According to the Registration Statement, to calculate the Bitcoin Index Price, the weighting algorithm is applied to the price and volume of all inputs for the immediately preceding 24-hour period as of 4:00 p.m., E.T., on the valuation date. According to the Registration Statement, to

measure volume data and trading halts, the Index Provider monitors trading activity and regards as eligible those Bitcoin Exchanges that it determines represent a substantial portion of U.S. dollar-denominated trading over a sustained period on a platform without a significant history of trading disruptions. The Index Provider maintains a monitoring system that tests for these criteria on an ongoing basis.

The description of the Index is based on information publicly available at the Index Provider's website at <https://tradeblock.com/markets/index/>.

The Index spot price will be available on the Index Provider's website and/or from one or more major market data vendors.

If the Index becomes unavailable, or if the Sponsor determines in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Index Provider to obtain the Bitcoin Index Price directly from the Index Provider. If after such contact, the Index remains unavailable or the Sponsor continues to believe in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (ii) Bitcoin Index Price = The volume-weighted average bitcoin price for the immediately preceding 24-hour period as of 4:00 p.m., E.T., on the valuation date as calculated based upon the volume-weighted average bitcoin prices of the Major Bitcoin Exchanges as published by an alternative third party's public data feed that the Sponsor believes is

accurately and reliably providing market data (i.e., is receiving up-to-date and timely market data from constituent exchanges) (“Second Source”). “Major Bitcoin Exchanges” are those Bitcoin Exchanges that are online, trade on a 24-hour basis and make transaction price and volume data publicly available. Subject to the next sentence, if the Second Source becomes unavailable (for example, data sources from the Second Source for bitcoin prices become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Second Source does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Second Source in an attempt to obtain the relevant data. If after such contact the Second Source remains unavailable or the Sponsor continues to believe in good faith that the Second Source does not reflect an accurate bitcoin price, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (iii) Bitcoin Index Price = The volume-weighted average bitcoin price as calculated by dividing (a) the U.S. dollar value of the bitcoin transactions on the Major Bitcoin Exchanges by (b) the total number of bitcoins traded on the Major Bitcoin Exchanges, in each case for the 24-hour period from 4:00 p.m., E.T. (or as soon as practicable thereafter), on the business day prior to the valuation date to 4:00 p.m., E.T. (or as soon as practicable thereafter), on the valuation date as published by a third party’s public data feed that the Sponsor believes is accurately and reliably providing market data (i.e., is receiving up-to-date and timely market data from

eligible exchanges), subject to the requirement that such data is calculated based upon a volume-weighted average bitcoin price obtained from the Major Bitcoin Exchanges (“Third Source”). Subject to the next sentence, if the Third Source becomes unavailable (for example, data sources from the Third Source become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Third Source does not reflect an accurate bitcoin price, then the Sponsor will, on a best efforts basis, contact the Third Source in an attempt to obtain the relevant data. If after such contact the Third Source remains unavailable or the Sponsor continues to believe in good faith that the Third Source does not reflect an accurate bitcoin value then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (iv) Bitcoin Index Price = The volume-weighted average bitcoin price as calculated by dividing (a) the U.S. dollar value of the bitcoin transactions on the Bitcoin Benchmark Exchanges by (b) the total number of bitcoins traded on the Bitcoin Benchmark Exchanges, in each case for the 24-hour period from 4:00 p.m., E.T. (or as soon as practicable thereafter), on the business day prior to the valuation date to 4:00 p.m., E.T. (or as soon as practicable thereafter), on the valuation date. A “Bitcoin Benchmark Exchange” is a Bitcoin Exchange that represents at least 25% of the aggregate U.S. dollar-denominated trading volume of the bitcoin market during the last 30 consecutive calendar days and that to the knowledge of the Sponsor is in substantial compliance with the laws, rules and

regulations, including any anti-money laundering (“AML”) and know-your-customer (“KYC”) procedures, of such Bitcoin Exchange’s applicable jurisdiction; provided that if there are fewer than three such Bitcoin Exchanges, then the Bitcoin Benchmark Exchanges will include such Bitcoin Exchange or Bitcoin Exchanges that meet the above-described requirements as well as one or more additional Bitcoin Exchanges, selected by the Sponsor, that have had monthly trading volume of at least 50,000 bitcoins during the last 30 consecutive calendar days and that to the knowledge of the Sponsor is in substantial compliance with the laws, rules and regulations, including any AML and KYC procedures, of such Bitcoin Exchange’s applicable jurisdiction.

The Sponsor will review the composition of the exchanges that comprise the Bitcoin Benchmark Exchanges at the beginning of each month, or more frequently if necessary, in order to ensure the accuracy of its composition.

Subject to the next sentence, if one or more of the Bitcoin Benchmark Exchanges become unavailable (for example, data sources from the Bitcoin Benchmark Exchanges of bitcoin prices become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Bitcoin Benchmark Exchange does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Bitcoin Benchmark Exchange that is experiencing the service outages in an attempt to obtain the relevant data. If after such contact one

or more of the Bitcoin Benchmark Exchanges remain unavailable or the Sponsor continues to believe in good faith that the Bitcoin Benchmark Exchange does not reflect an accurate bitcoin price, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

- (v) Bitcoin Index Price = The Sponsor will use its best judgment to determine a good faith estimate of the Bitcoin Index Price.

Data used for the above calculation of the Bitcoin Index Price is gathered by the Administrator or its delegate who calculates the Bitcoin Index Price each business day as of 4:00 p.m., E.T., or as soon thereafter as practicable. The Administrator will disseminate the Bitcoin Index Price each business day.

The Index Provider may change the trading venues that are used to calculate the Index, or otherwise change the way in which the Index is calculated at any time. The Index Provider does not have any obligation to consider the interests of the Sponsor, the Administrator, the Trust, the shareholders or anyone else in connection with such changes. The Index Provider is not required to publicize or explain the changes, or to alert the Sponsor or the Administrator to such changes. The Index Provider will consider IOSCO principles for financial benchmarks and the management of trading venues of bitcoin derivatives when considering inclusion of OTC or derivative platform data in the future.

### **Bitcoin Holdings**

According to the Registration Statement, the Trust's assets will consist solely of

bitcoin. The Administrator will determine the value of the Trust for operational purposes (herein referred to as “Bitcoin Holdings”), which is the aggregate U.S. dollar value, based on the Bitcoin Index Price, of the Trust’s bitcoins less its liabilities, on each day the Shares trade on the Exchange as of 4:00 p.m. E.T., or as soon thereafter as practicable.<sup>17</sup> The Administrator will also determine the Bitcoin Holdings per Share, which equals the Trust’s Bitcoin Holdings divided by the number of outstanding Shares. The Sponsor will publish the Bitcoin Holdings and the Bitcoin Holdings per Share each business day at 4:00 p.m., E.T., or as soon thereafter as practicable at the Trust’s website at <https://grayscale.co/bitcoin-investment-trust/#market-performance>.

To calculate the Bitcoin Holdings, the Administrator will determine the Bitcoin Index Price and multiply the Bitcoin Index Price by the aggregate number of bitcoins owned by the Trust as of 4:00 p.m., E.T., on the immediately preceding day. The Administrator will add the U.S. dollar value of any bitcoins, as calculated using the Bitcoin Index Price, receivable under pending creation orders, if any, determined by multiplying the number of creation Baskets represented by such creation orders by the Basket Bitcoin Amount and then multiplying such product by the Bitcoin Index Price. The Administrator will subtract (i) the U.S. dollar value of the bitcoins, as calculated using the Bitcoin Price Index, constituting any accrued but unpaid fees, (ii) the U.S. dollar value of the bitcoins to be distributed under pending redemption orders, determined by multiplying the number of redemption Baskets represented by such redemption orders by the Basket Bitcoin Amount and then multiplying such product by the Bitcoin Index Price and (iii) certain expenses of the Trust.

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<sup>17</sup> Bitcoin Holdings is different than the GAAP net asset value referenced in the Registration Statement.

The Sponsor will publish the Bitcoin Index Price, the Bitcoin Holdings and the Bitcoin Holdings per Share on the Trust's website as soon as practicable after its determination. If the Bitcoin Holdings and Bitcoin Holdings per Share have been calculated using a price per bitcoin other than the Bitcoin Index Price, the publication on the Trust's website will note the valuation methodology used and the price per bitcoin resulting from such calculation.

While the Trust's investment objective is for the Shares to reflect the performance of the value of a bitcoin as represented by the Index, less the Trust's liabilities and expenses, the Shares may trade in the secondary market at prices that are lower or higher than the Bitcoin Holdings per Share. The amount of the discount or premium in the trading price relative to the Bitcoin Holdings per Share may be influenced by non-concurrent trading hours and liquidity between the secondary market and larger Bitcoin Exchanges in the bitcoin exchange market. While the Shares will be listed and trade on the Exchange from 9:30 a.m. until 4:00 p.m., E.T., liquidity in the global bitcoin markets may fluctuate depending upon the volume and availability of larger Bitcoin Exchanges. As a result, during periods in which bitcoin exchange market liquidity is limited or a major Bitcoin Exchange is off-line, trading spreads, and the resulting premium or discount, on the Shares may widen.

#### Impact on Arbitrage

Because of the potential for arbitrage inherent in the structure of the Trust, the Sponsor believes that the Shares will not trade at a material discount or premium to the underlying bitcoin held by the Trust. The arbitrage process, which in general provides investors the opportunity to profit from differences in prices of assets, increases the

efficiency of the markets, serves to prevent potentially manipulative efforts, and can be expected to operate efficiently in the case of the Shares and bitcoin. If the price of the Shares deviates enough from the price of bitcoin to create a material discount or premium, an arbitrage opportunity is created. If the Shares are inexpensive compared to the bitcoin that underlies them, an arbitrageur may buy the Shares at a discount, immediately redeem them in exchange for bitcoin, and sell the bitcoin in the cash market at a profit. If the Shares are expensive compared to the bitcoin that underlies them, an arbitrageur may sell the Shares short, buy enough bitcoin to acquire the number of Shares sold short, acquire the Shares through the creation process, and deliver the Shares to close out the short position.<sup>18</sup> In both instances, the arbitrageur serves to efficiently correct price discrepancies between the Shares and the underlying bitcoin.

### **Creation and Redemption of Shares**

According to the Registration Statement, the Trust will issue and redeem “Baskets,” each equal to a block of 100 Shares, only to Authorized Participants. The size of a Basket is subject to change. The creation and redemption of a Basket require the delivery to the Trust, or the distribution by the Trust, of the number of whole and fractional bitcoins represented by each Basket being created or redeemed, the number of which is determined by dividing the number of bitcoins owned by the Trust at 4:00 p.m., E.T., on the trade date of a creation or redemption order, by the number of Shares

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<sup>18</sup> The Exchange states that the Trust, which will only hold bitcoin, differs from index-based exchange-traded funds, which may involve a trust holding hundreds or even thousands of underlying component securities, necessarily involving in the arbitrage process movements in a large number of security positions. See, e.g., Securities Exchange Act Release No. 46306 (August 2, 2002) (approving the UTP trading of Vanguard Total Market VIPERs based on the Wilshire 5000 Total Market Index).

outstanding at such time (calculated to one one-hundred-millionth of one bitcoin), as adjusted for the number of whole and fractional bitcoins constituting accrued but unpaid fees and expenses of the Trust and multiplying the quotient obtained by 100 (“Basket Bitcoin Amount”). The Basket Bitcoin Amount multiplied by the number of Baskets being created or redeemed is the “Total Basket Bitcoin Amount.” The Basket Bitcoin Amount will gradually decrease over time as the Trust’s bitcoins are used to pay the Trust’s expenses. According to the Registration Statement, as of the date of the Registration Statement, each Share currently represents approximately 0.093 of a bitcoin.

Authorized Participants are the only persons that may place orders to create and redeem Baskets. Each Authorized Participant must (i) be a registered broker-dealer, (ii) enter into a participant agreement with the Sponsor, the Administrator, the Marketing Agent and the Liquidity Providers (“Participant Agreement”) and (iii) in the case of the creation or redemption of Baskets that do not use the “Conversion Procedures” (as defined below), own a bitcoin wallet address that is recognized by the Custodian as belonging to the Authorized Participant (“Authorized Participant Self-Administered Account”). Authorized Participants may act for their own accounts or as agents for broker-dealers, custodians and other securities market participants that wish to create or redeem Baskets. Shareholders who are not Authorized Participants will only be able to redeem their Shares through an Authorized Participant.

Although the Trust will create Baskets only upon the receipt of bitcoins, and will redeem Baskets only by distributing bitcoins, an Authorized Participant may deposit cash with the Administrator, which will facilitate the purchase or sale of bitcoins through a Liquidity Provider on behalf of an Authorized Participant (“Conversion Procedures”).

“Liquidity Providers” must (i) enter into a Participant Agreement with the Sponsor, the Trust, the Marketing Agent and each Authorized Participant and (ii) own a bitcoin wallet address that is recognized by the Custodian as belonging to a Liquidity Provider (“Liquidity Provider Account”).

The Conversion Procedures will be facilitated by a single Liquidity Provider. On an order-by-order basis, the Sponsor will select the Liquidity Provider that it believes will provide the best execution of the Conversion Procedures, and will base its decision on factors such as the Liquidity Provider’s creditworthiness, financial stability, ability to obtain the best price, the timing and speed of execution, liquidity and the likelihood of, and capabilities in, execution, clearance and settlement. In the event that an order cannot be filled in its entirety by a single Liquidity Provider, additional Liquidity Provider(s) will be selected by the Sponsor to fill the remaining amount based on the criteria above.

The trade date on which the Basket Bitcoin Amount is determined is different for in-kind and in-cash orders. For in-kind orders, the trade date is the day on which an order is placed, whereas the trade date for in-cash orders is the day after which an order is placed. This could result in a different execution price for in-kind and in-cash orders.

For example, if an Authorized Participant submits an in-kind order at 2:00 p.m., E.T., on a Monday, the Basket Bitcoin Amount required to purchase a Basket of Shares will be determined at 4:00 p.m., E.T., or as soon as practicable thereafter, on that same day. Alternatively, for in-cash orders, if an Authorized Participant submits an order at 2:00 p.m., E.T., on a Monday and pays the requisite Cash Collateral Amount (as defined below) at 3:00 p.m., E.T., on that same date, the Total Basket Bitcoin Amount will nevertheless be determined at 4:00 p.m., E.T., or as soon as practicable thereafter, on

Tuesday. Pursuant to the Conversion Procedures, the Authorized Participant is obligated to pay the Cash Exchange Rate (as defined below) which is calculated on Monday, times the Total Basket Bitcoin Amount, which is calculated on Tuesday. The Liquidity Provider is required to deposit the Total Basket Bitcoin Amount as calculated on Tuesday, even if there were a change in the price of bitcoin since Monday.

To create Baskets in-kind, Authorized Participants will send the Administrator a creation order on the trade date. In-kind creation orders must be placed no later than 3:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the creation order, and this determination will be communicated to the Authorized Participant by the Administrator on that same date. The Total Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., on that date. On the business day following the trade date, the Authorized Participant will transfer the Total Basket Bitcoin Amount to the Custodian. Once the Total Basket Bitcoin Amount is received by the Custodian, the Administrator will instruct the Transfer Agent to deliver the creation Baskets to the Authorized Participant.

To create Baskets using the Conversion Procedures, Authorized Participants will send the Administrator a creation order on the business day preceding the trade date. In-cash creation orders must be placed no later than 4:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the creation order, and this determination will be communicated to the Authorized Participants by the Administrator on that same date. Upon receiving instruction from the Administrator that a creation order has been accepted by the Marketing Agent, the Authorized Participant will send 110% of the U.S. dollar value of the Total Basket Bitcoin Amount (“Cash Collateral Amount”). The Total

Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., the following day. Once the Cash Collateral Amount is received by the Administrator, the Sponsor will notify the Liquidity Provider of the creation order. The Liquidity Provider will then provide a firm quote to the Authorized Participant for the Total Basket Bitcoin Amount, determined by using the “Cash Exchange Rate,” which, in the case of a creation order, is the Index spot price at the time at which the Cash Collateral Amount is received by the Administrator, plus applicable fees. If the Liquidity Provider’s quote is greater than the Cash Collateral Amount received, the Authorized Participant will be required to pay the difference. Provided that payment for the Total Basket Bitcoin Amount is received by the Administrator, the Liquidity Provider will deliver the bitcoins to the Custodian on the settlement date on behalf of the Authorized Participant. The Liquidity Provider may realize any arbitrage opportunity between the firm quote that it provides to the Authorized Participant and the price at which it sources the requisite bitcoin for the Total Basket Bitcoin Amount. After the Custodian receives the Total Basket Bitcoin Amount, the Administrator will instruct the Transfer Agent to deliver the Creation Baskets to the Authorized Participant. The Administrator will then send the Liquidity Provider the cash equal to the Cash Exchange Rate times the Total Basket Bitcoin Amount, plus applicable fees. The Administrator will return any remaining amount of the Cash Collateral Amount to the Authorized Participant.

To redeem Baskets in-kind, Authorized Participants will send the Administrator a redemption order on the trade date. In-kind redemption orders must be placed no later than 3:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the redemption order and the Total Basket Bitcoin Amount will be determined as soon as

practicable after 4:00 p.m., E.T., on that same date. On the second business day following the trade date, the Authorized Participant will deliver to the Transfer Agent redemption Baskets from its account. Once the redemption Baskets are received by the Transfer Agent, the Custodian will transfer the Total Basket Bitcoin Amount to the Authorized Participant and the Transfer Agent will cancel the Shares.

To redeem Baskets using the Conversion Procedures, Authorized Participants will send the Administrator a redemption order. In-cash redemption orders must be placed no later than 4:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the redemption order on that same date. A Liquidity Provider will then provide a firm quote to an Authorized Participant for the Total Basket Bitcoin Amount, determined by using the “Cash Exchange Rate,” which, in the case of a redemption order, is the Index spot price minus applicable fees at the time at which the Administrator notifies the Authorized Participant that an order has been accepted.

The Liquidity Provider will send the Administrator the cash proceeds equal to the Cash Exchange Rate times the Total Basket Bitcoin Amount, minus applicable fees. The Liquidity Provider may realize any arbitrage opportunity between the firm quote that it provides to the Authorized Participant and the price at which it sells the requisite bitcoin for the Total Basket Bitcoin Amount. Once the Authorized Participant delivers the redemption Baskets to the Transfer Agent, the Administrator will send the cash proceeds to the Authorized Participant and the Transfer Agent will cancel the Shares. At the instruction of the Administrator, the Custodian will then send the Liquidity Provider the Total Basket Bitcoin Amount.

The Sponsor represents that Liquidity Providers will only transact with exchanges

and OTC trading partners that have met AML and KYC regulatory requirements. Authorized Participants that create and redeem Baskets using the Conversion Procedures will be responsible for reimbursing the relevant Liquidity Provider for any expenses incurred in connection with the Conversion Procedures. The Authorized Participants will also pay a variable fee to the Administrator for its facilitation of the Conversion Procedures. There are no other fees related to the Conversion Procedures that will be charged by the Sponsor or the Custodian.

The creation or redemption of Shares may be suspended generally, or refused with respect to particular requested creations or redemptions, during any period when the transfer books of the Transfer Agent are closed or if circumstances outside the control of the Sponsor or its delegates make it for all practical purposes not feasible to process creation orders or redemption orders. The Administrator may reject an order if such order is not presented in proper form as described in the Participant Agreement or if the fulfillment of the order, in the opinion of counsel, might be unlawful.

#### **Availability of Information**

The Trust's website (<https://grayscale.co/bitcoin-investment-trust/>) will include quantitative information on a per-Share basis updated on a daily basis, including, for the Trust (i) the current Bitcoin Holdings per Share daily and the prior business day's Bitcoin Holdings and the reported closing price, (ii) the mid-point of the bid-ask price<sup>19</sup> in relation to the Bitcoin Holdings as of the time the Bitcoin Holdings is calculated ("Bid-Ask Price") and a calculation of the premium or discount of such price against such

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<sup>19</sup> The bid-ask price of the Trust is determined using the highest bid and lowest offer on the Consolidated Tape as of the time of calculation of the closing day Bitcoin Holdings.

Bitcoin Holdings and (iii) data in chart format displaying the frequency distribution of discounts and premiums of the daily Bid-Ask Price against the Bitcoin Holdings, within appropriate ranges, for each of the four previous calendar quarters (or for the life of the Trust, if shorter). In addition, on each business day the Trust's website will provide pricing information for the Shares.

The Trust's website will provide an intra-day indicative value ("IIV") per Share updated every 15 seconds, as calculated by the Exchange or a third party financial data provider during the Exchange's Core Trading Session (9:30 a.m. to 4:00 p.m., E.T.)<sup>20</sup> The IIV will be calculated by using the prior day's closing Bitcoin Holdings per Share as a base and updating that value during the NYSE Arca Core Trading Session to reflect changes in the value of the Trust's bitcoin holdings during the trading day.

The IIV disseminated during the NYSE Arca Core Trading Session should not be viewed as an actual real time update of the Bitcoin Holdings, which will be calculated only once at the end of each trading day. The IIV will be widely disseminated on a per Share basis every 15 seconds during the NYSE Arca Core Trading Session by one or more major market data vendors. In addition, the IIV will be available through on-line information services.

The Bitcoin Holdings for the Trust will be calculated by the Administrator once a day and will be disseminated daily to all market participants at the same time. To the extent that the Administrator has utilized the cascading set of rules described in "Bitcoin Index Price" above, the Trust's website will note the valuation methodology used and the

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<sup>20</sup> The IIV on a per Share basis disseminated during the Core Trading Session should not be viewed as a real-time update of the Bitcoin Holdings, which is calculated once a day.

price per bitcoin resulting from such calculation. Quotation and last-sale information regarding the Shares will be disseminated through the facilities of the Consolidated Tape Association (“CTA”).

Quotation and last sale information for bitcoin will be widely disseminated through a variety of major market data vendors, including Bloomberg and Reuters. In addition, the complete real-time price (and volume) data for bitcoin is available by subscription from Reuters and Bloomberg. The spot price of bitcoin is available on a 24-hour basis from major market data vendors, including Bloomberg and Reuters. Information relating to trading, including price and volume information, in bitcoin will be available from major market data vendors and from the exchanges on which bitcoin are traded. The normal trading hours for bitcoin exchanges are 24-hours per day, 365-days per year.

The Trust will provide website disclosure of its Bitcoin Holdings daily. The website disclosure of the Trust’s Bitcoin Holdings will occur at the same time as the disclosure by the Sponsor of the Bitcoin Holdings to Authorized Participants so that all market participants are provided such portfolio information at the same time. Therefore, the same portfolio information will be provided on the public website as well as in electronic files provided to Authorized Participants. Accordingly, each investor will have access to the current Bitcoin Holdings of the Trust through the Trust’s website.

Additional information regarding the Index may be found at <https://tradeblock.com/markets/index/>.

### **Trading Rules**

The Trust will be subject to the criteria in NYSE Arca Equities Rule 8.201,

including 8.201(e), for initial and continued listing of the Shares. A minimum of 100,000 Shares will be required to be outstanding at the start of trading. With respect to application of Rule 10A-3 under the Act, the Trust will rely on the exception contained in Rule 10A-3(c)(7). The Exchange believes that the anticipated minimum number of Shares outstanding at the start of trading is sufficient to provide adequate market liquidity.

The Exchange deems the Shares to be equity securities, thus rendering trading in the Shares subject to the Exchange's existing rules governing the trading of equity securities. Trading in the Shares on the Exchange will occur in accordance with NYSE Arca Equities Rule 7.34(a).<sup>21</sup> The Exchange has appropriate rules to facilitate transactions in the Shares during all trading sessions. As provided in NYSE Arca Equities Rule 7.6, the minimum price variation ("MPV") for quoting and entry of orders in equity securities traded on the NYSE Arca Marketplace is \$0.01, with the exception of securities that are priced less than \$1.00 for which the MPV for order entry is \$0.0001.

Further, NYSE Arca Equities Rule 8.201 sets forth certain restrictions on Equity Trading Permit Holders ("ETP Holders") acting as registered Market Makers in the Shares to facilitate surveillance. Pursuant to NYSE Arca Equities Rule 8.201(g), an ETP Holder acting as a registered Market Maker in the Shares is required to provide the Exchange with information relating to its trading in the underlying bitcoin, related futures

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<sup>21</sup> The Exchange has three trading sessions for Commodity-Based Trust Shares each day the Corporation is open for business unless otherwise determined by the Corporation: (i) the Opening Session begins at 1:00 a.m., Pacific Time ("P.T."), and conclude at the commencement of the Core Trading Session; (ii) the Core Trading Session begins for each security at 6:30 a.m., P.T., or at the conclusion of the Market Order Auction, whichever comes later, and conclude at 1:15 p.m., P.T.; and (iii) the Late Trading Session begins following the conclusion of the Core Trading Session and concludes at 5:00 p.m., P.T.

or options on futures, or any other related derivatives. Commentary .04 of NYSE Arca Equities Rule 6.3 requires an ETP Holder acting as a registered Market Maker, and its affiliates, in the Shares to establish, maintain and enforce written policies and procedures reasonably designed to prevent the misuse of any material nonpublic information with respect to such products, any components of the related products, any physical asset or commodity underlying the product, applicable currencies, underlying indexes, related futures or options on futures and any related derivative instruments (including the Shares).

As a general matter, the Exchange has regulatory jurisdiction over its ETP Holders and their associated persons, which include any person or entity controlling an ETP Holder. A subsidiary or affiliate of an ETP Holder that does business only in commodities or futures contracts would not be subject to Exchange jurisdiction, but the Exchange could obtain information regarding the activities of such subsidiary or affiliate through surveillance sharing agreements with regulatory organizations of which such subsidiary or affiliate is a member.

With respect to trading halts, the Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. Trading on the Exchange in the Shares may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the Shares inadvisable. These may include: (1) the extent to which conditions in the underlying bitcoin markets have caused disruptions and/or lack of trading or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. In

addition, trading in Shares will be subject to trading halts caused by extraordinary market volatility pursuant to the Exchange's "circuit breaker" rule.<sup>22</sup>

The Exchange will halt trading in the Shares if the Bitcoin Holdings of the Trust is not calculated or disseminated daily. The Exchange may halt trading during the day in which an interruption occurs to the dissemination of the IIV or the Index spot price, as discussed above. If the interruption to the dissemination of the IIV or the Index spot price persists past the trading day in which it occurs, the Exchange will halt trading no later than the beginning of the trading day following the interruption.<sup>23</sup> In addition, if the Exchange becomes aware that the Bitcoin Holdings with respect to the Shares is not disseminated to all market participants at the same time, it will halt trading in the Shares until such time as the Bitcoin Holdings is available to all market participants.

### **Surveillance**

The Exchange represents that trading in the Shares will be subject to the existing trading surveillances administered by the Exchange, as well as cross-market surveillances administered by the Financial Industry Regulatory Authority ("FINRA") on behalf of the Exchange, which are designed to detect violations of Exchange rules and applicable federal securities laws.<sup>24</sup> The Exchange represents that these procedures are adequate to properly monitor Exchange trading of the Shares in all trading sessions and to deter and

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<sup>22</sup> See NYSE Arca Equities Rule 7.12.

<sup>23</sup> The Exchange notes that the Exchange may halt trading during the day in which an interruption to the dissemination of the IIV or the Index spot price occurs.

<sup>24</sup> FINRA conducts cross market surveillances on behalf of the Exchange pursuant to a regulatory services agreement. The Exchange is responsible for FINRA's performance under this regulatory services agreement.

detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.

The surveillances referred to above generally focus on detecting securities trading outside their normal patterns, which could be indicative of manipulative or other violative activity. When such situations are detected, surveillance analysis follows and investigations are opened, where appropriate, to review the behavior of all relevant parties for all relevant trading violations.

The Exchange or FINRA, on behalf of the Exchange, or both, will communicate as needed regarding trading in the Shares with other markets and other entities that are members of the Intermarket Surveillance Group (“ISG”), and the Exchange or FINRA, on behalf of the Exchange, or both, may obtain trading information regarding trading in the Shares from such markets and other entities. In addition, the Exchange may obtain information regarding trading in the Shares from markets and other entities that are members of ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement (“CSSA”).<sup>25</sup>

Also, pursuant to NYSE Arca Equities Rule 8.201(g), the Exchange is able to obtain information regarding trading in the Shares and the underlying bitcoin or any bitcoin derivative through ETP Holders acting as registered Market Makers, in connection with such ETP Holders’ proprietary or customer trades through ETP Holders which they effect on any relevant market.

The Exchange also has a general policy prohibiting the distribution of material, non-public information by its employees.

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<sup>25</sup> For the list of current members of ISG, see <https://www.isgportal.org/home.html>.

All statements and representations made in this filing regarding (i) the description of the portfolio, (ii) limitations on portfolio holdings or reference assets or (iii) the applicability of Exchange rules and surveillance procedures shall constitute continued listing requirements for listing the Shares on the Exchange.

The issuer has represented to the Exchange that it will advise the Exchange of any failure by the Trust to comply with the continued listing requirements, and, pursuant to its obligations under Section 19(g)(1) of the Act, the Exchange will monitor for compliance with the continued listing requirements. If the Trust is not in compliance with the applicable listing requirements, the Exchange will commence delisting procedures under NYSE Arca Equities Rule 5.5(m).

#### **Information Bulletin**

Prior to the commencement of trading, the Exchange will inform its ETP Holders in an “Information Bulletin” of the special characteristics and risks associated with trading the Shares. Specifically, the Information Bulletin will discuss the following: (1) the procedures for purchases and redemptions of Shares in Baskets (including noting that the Shares are not individually redeemable); (2) NYSE Arca Equities Rule 9.2(a), which imposes a duty of due diligence on its ETP Holders to learn the essential facts relating to every customer prior to trading the Shares; (3) how information regarding how the Index and the IIV are disseminated; (4) the requirement that ETP Holders deliver a prospectus to investors purchasing newly issued Shares prior to or concurrently with the confirmation of a transaction; (5) the possibility that trading spreads and the resulting premium or discount on the Shares may widen during the Opening and Late Trading Sessions, when an updated IIV will not be calculated or publicly disseminated; and (6)

trading information. For example, the Information Bulletin will advise ETP Holders, prior to the commencement of trading, of the prospectus delivery requirements applicable to the Trust. The Exchange notes that investors purchasing Shares directly from the Trust will receive a prospectus. ETP Holders purchasing Shares from the Trust for resale to investors will deliver a prospectus to such investors.

In addition, the Information Bulletin will reference that the Trust is subject to various fees and expenses as described in the Registration Statement. The Information Bulletin will disclose that information about the Shares of the Trust is publicly available on the Trust's website.

The Information Bulletin will also discuss any relief, if granted, by the Commission or the staff from any rules under the Act.

## 2. Statutory Basis

The basis under the Act for this proposed rule change is the requirement under Section 6(b)(5)<sup>26</sup> that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to, and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule change is designed to prevent fraudulent and manipulative acts and practices in that the Shares will be listed and traded on the Exchange pursuant to the initial and continued listing criteria in NYSE Arca Equities Rule 8.201. The Exchange has in place surveillance procedures that are adequate to properly monitor trading in the Shares in all trading sessions and to deter and

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<sup>26</sup> 15 U.S.C. 78f(b)(5).

detect violations of Exchange rules and applicable federal securities laws. The Exchange or FINRA, on behalf of the Exchange, or both, will communicate as needed regarding trading in the Shares with other markets that are members of the ISG, and the Exchange or FINRA, on behalf of the Exchange, or both, may obtain trading information regarding trading in the Shares from such markets. In addition, the Exchange may obtain information regarding trading in the Shares from markets that are members of ISG or with which the Exchange has in place a CSSA. Also, pursuant to NYSE Arca Equities Rule 8.201(g), the Exchange is able to obtain information regarding trading in the Shares and the underlying bitcoin or any bitcoin derivative through ETP Holders acting as registered Market Makers, in connection with such ETP Holders' proprietary or customer trades through ETP Holders which they effect on any relevant market.

The proposed rule change is designed to promote just and equitable principles of trade and to protect investors and the public interest in that there is a considerable amount of bitcoin price and bitcoin market information available on public websites and through professional and subscription services. Investors may obtain on a 24-hour basis bitcoin pricing information based on the spot price for bitcoin from various financial information service providers. The closing price and settlement prices of bitcoin are readily available from the bitcoin exchanges and other publicly available websites. In addition, such prices are published in public sources, or on-line information services such as Bloomberg and Reuters. The Trust will provide website disclosure of its bitcoin holdings daily. Quotation and last-sale information regarding the Shares will be disseminated through the facilities of the CTA. The IIV will be widely disseminated on a per Share basis every 15 seconds during the NYSE Arca Core Trading Session (normally 9:30 a.m., E.T., to 4:00

p.m., E.T.) by one or more major market data vendors. In addition, the IIV will be available through on-line information services. The Exchange represents that the Exchange may halt trading during the day in which an interruption to the dissemination of the IIV or the Index spot price occurs. If the interruption to the dissemination of the IIV or the Index spot price persists past the trading day in which it occurred, the Exchange will halt trading no later than the beginning of the trading day following the interruption. In addition, if the Exchange becomes aware that the Bitcoin Holdings with respect to the Shares is not disseminated to all market participants at the same time, it will halt trading in the Shares until such time as the Bitcoin Holdings is available to all market participants. The Bitcoin Holdings per Share will be calculated daily and made available to all market participants at the same time. One or more major market data vendors will disseminate for the Trust on a daily basis information with respect to the most recent Bitcoin Holdings per Share and Shares outstanding.

The proposed rule change is designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the listing and trading of an additional type of exchange-traded product that will enhance competition among market participants, to the benefit of investors and the marketplace. As noted above, the Exchange has in place surveillance procedures relating to trading in the Shares and may obtain information via ISG from other exchanges that are members of ISG or with which the Exchange has entered into a CSSA. In addition, as noted above, investors will have ready access to information regarding the Trust's bitcoin holdings, IIV and quotation and last sale information for the Shares.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange notes that the proposed rule change will facilitate the listing and trading of an additional type of exchange-traded product, and the first such product based on bitcoin, which will enhance competition among market participants, to the benefit of investors and the marketplace.

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

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

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

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

- (A) by order approve or disapprove the proposed rule change, or
- (B) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

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

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-NYSEARCA-2017-06 on the subject line.

Paper comments:

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

All submissions should refer to File Number SR-NYSEARCA-2017-06. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet website (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All

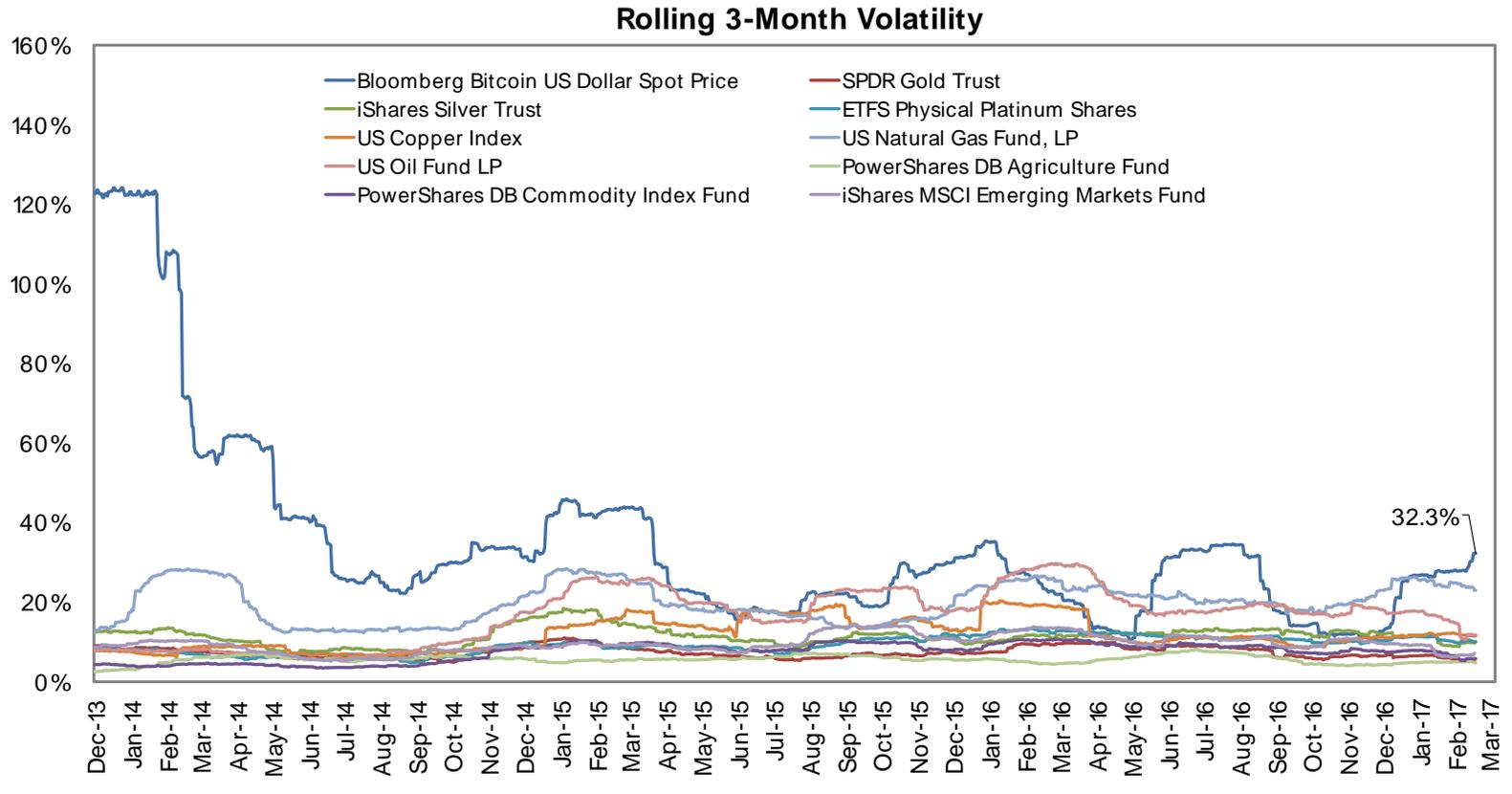
submissions should refer to File Number SR-NYSEARCA-2017-06 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>27</sup>

Robert W. Errett  
Deputy Secretary

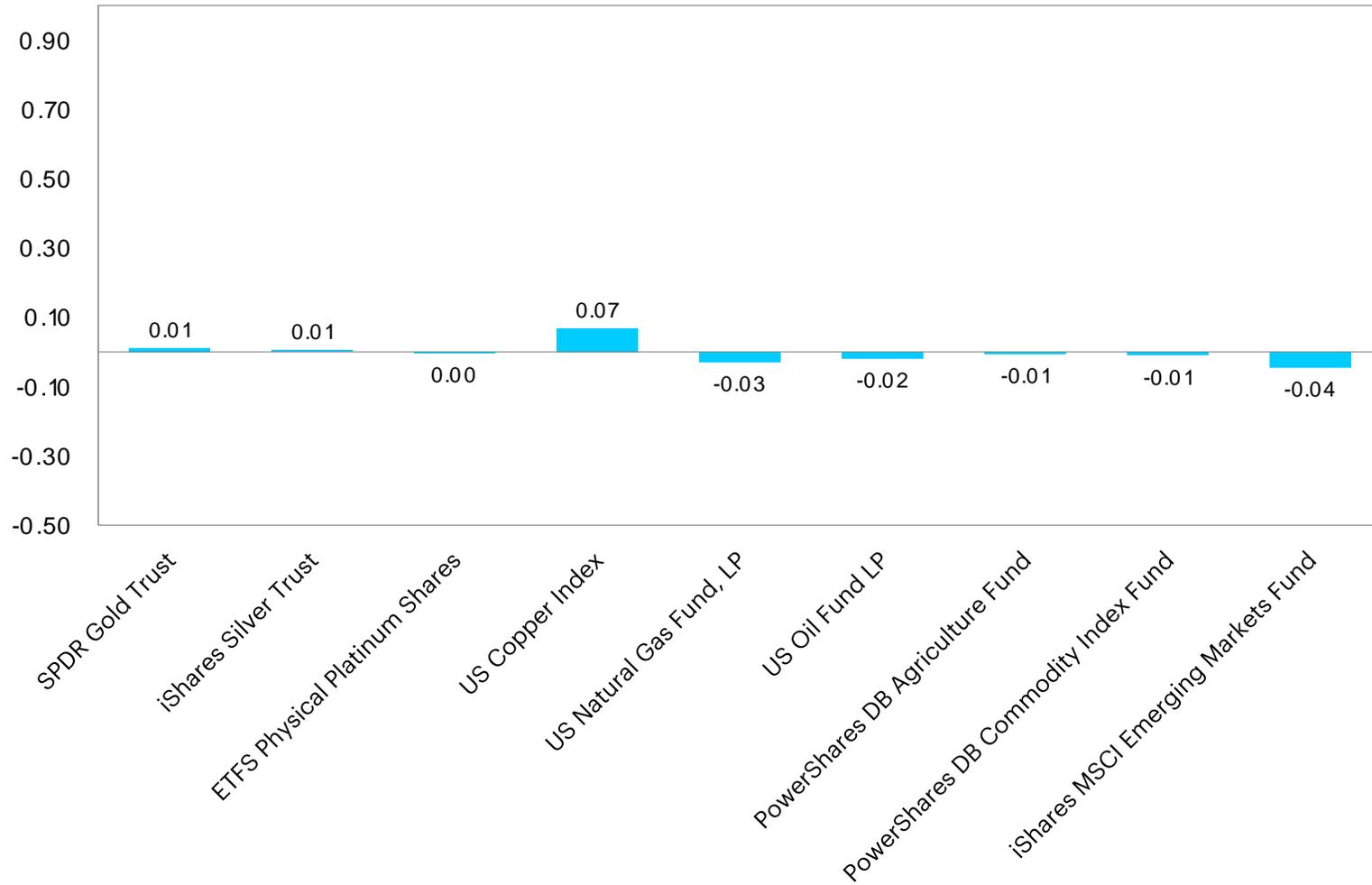
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<sup>27</sup> 17 CFR 200.30-3(a)(12).



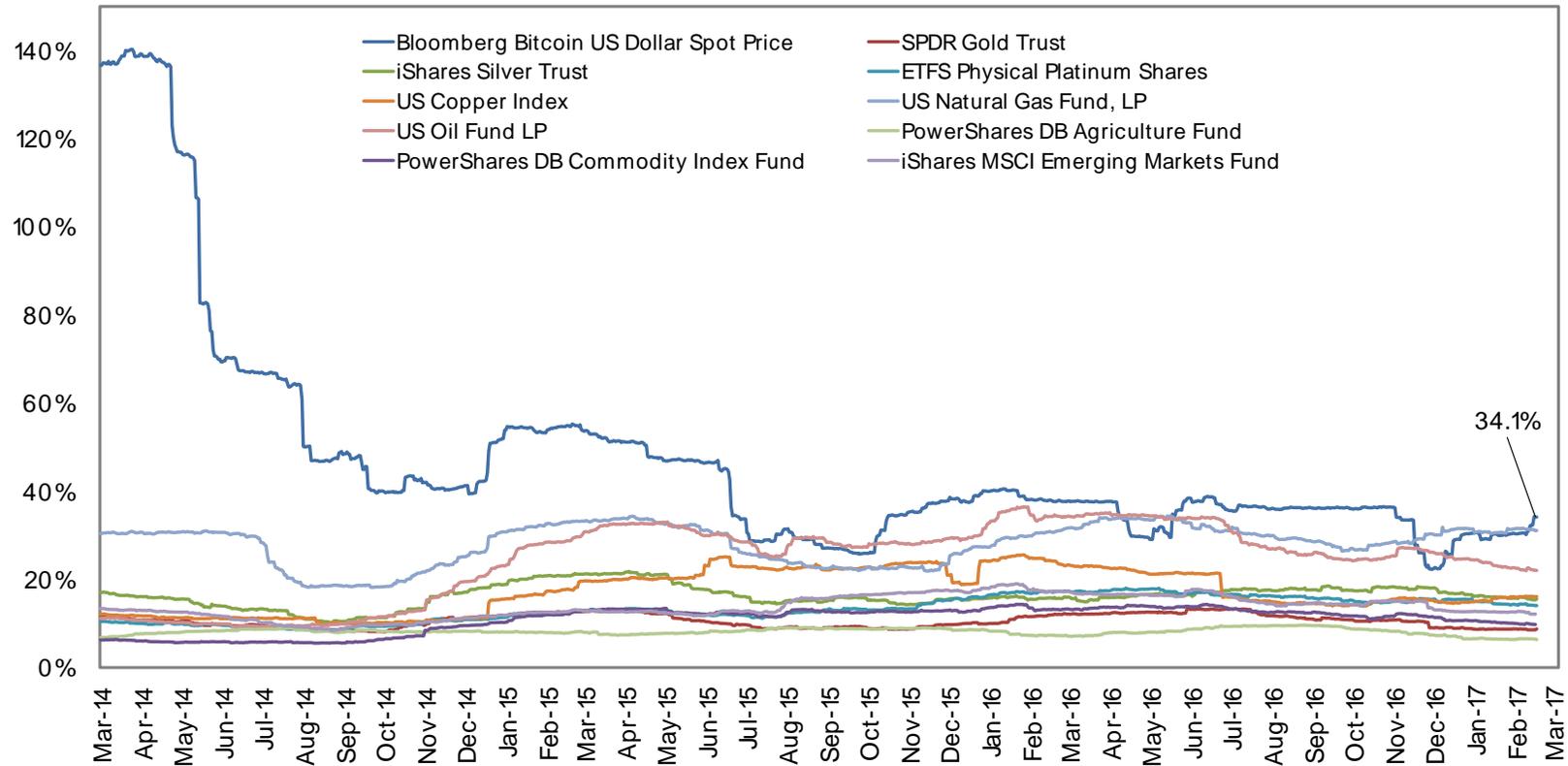
<sup>1</sup> Source: Bloomberg. Data from September 25, 2013 through March 15, 2017.

**Average 3-Month Correlation with Bitcoin**



<sup>2</sup> Source: Bloomberg. Data from September 25, 2013 through March 15, 2017.

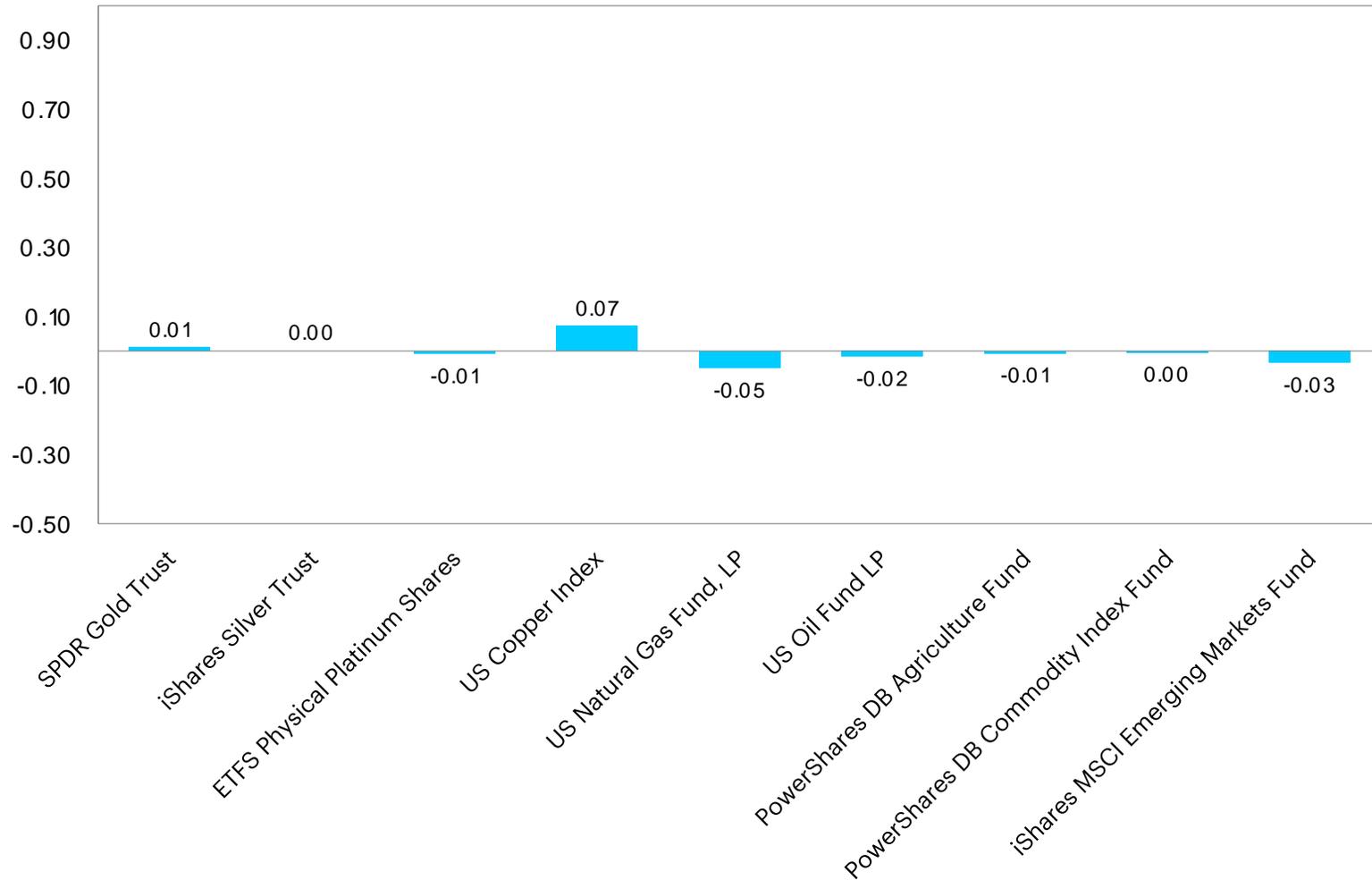
### Rolling 6-Month Volatility



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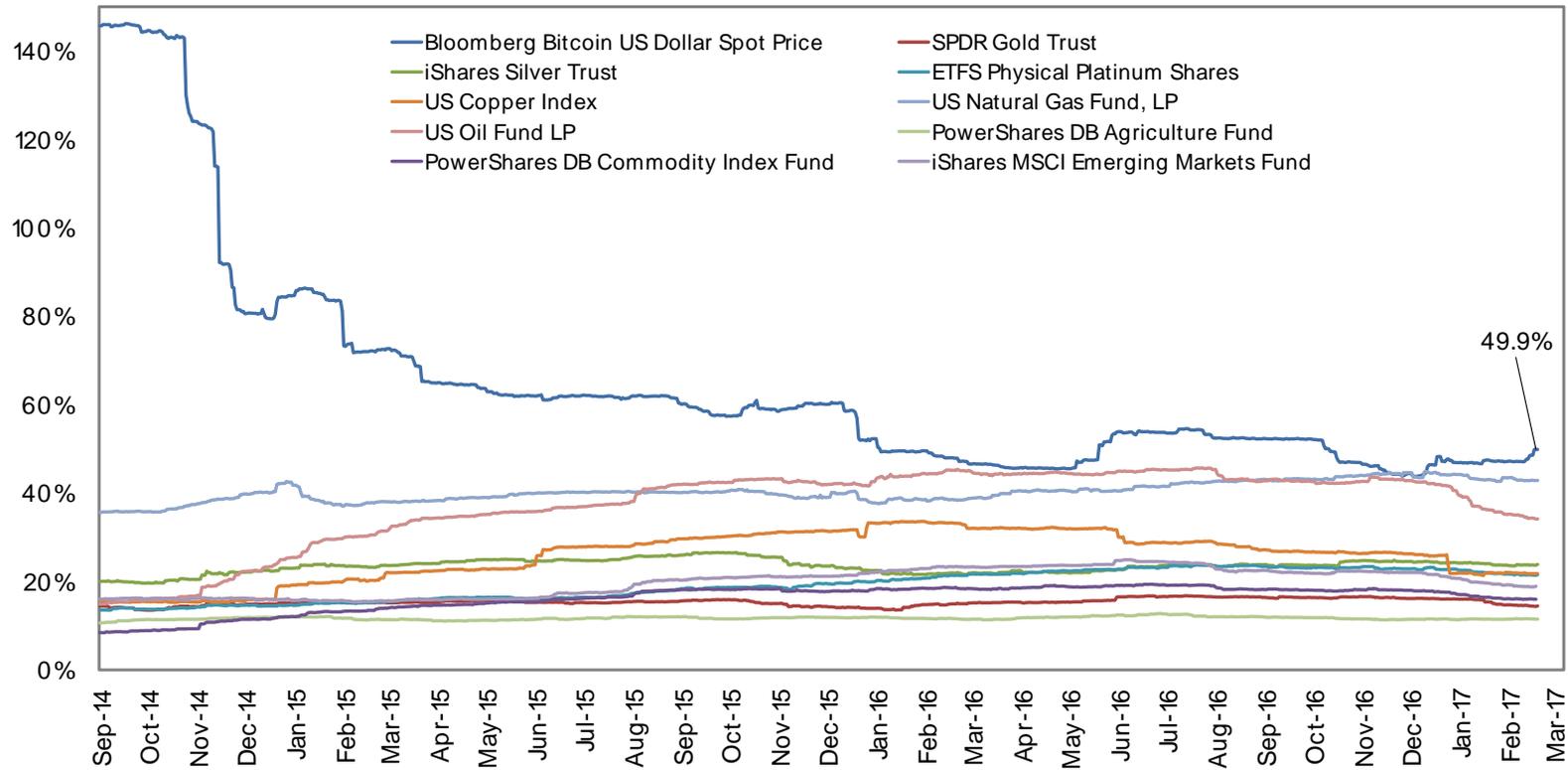
<sup>3</sup> Source: Bloomberg. Data from September 25, 2013 through March 15, 2017.

**Average 6-Month Correlation with Bitcoin**



<sup>4</sup> Source: Bloomberg. Data from September 25, 2013 through March 15, 2017.

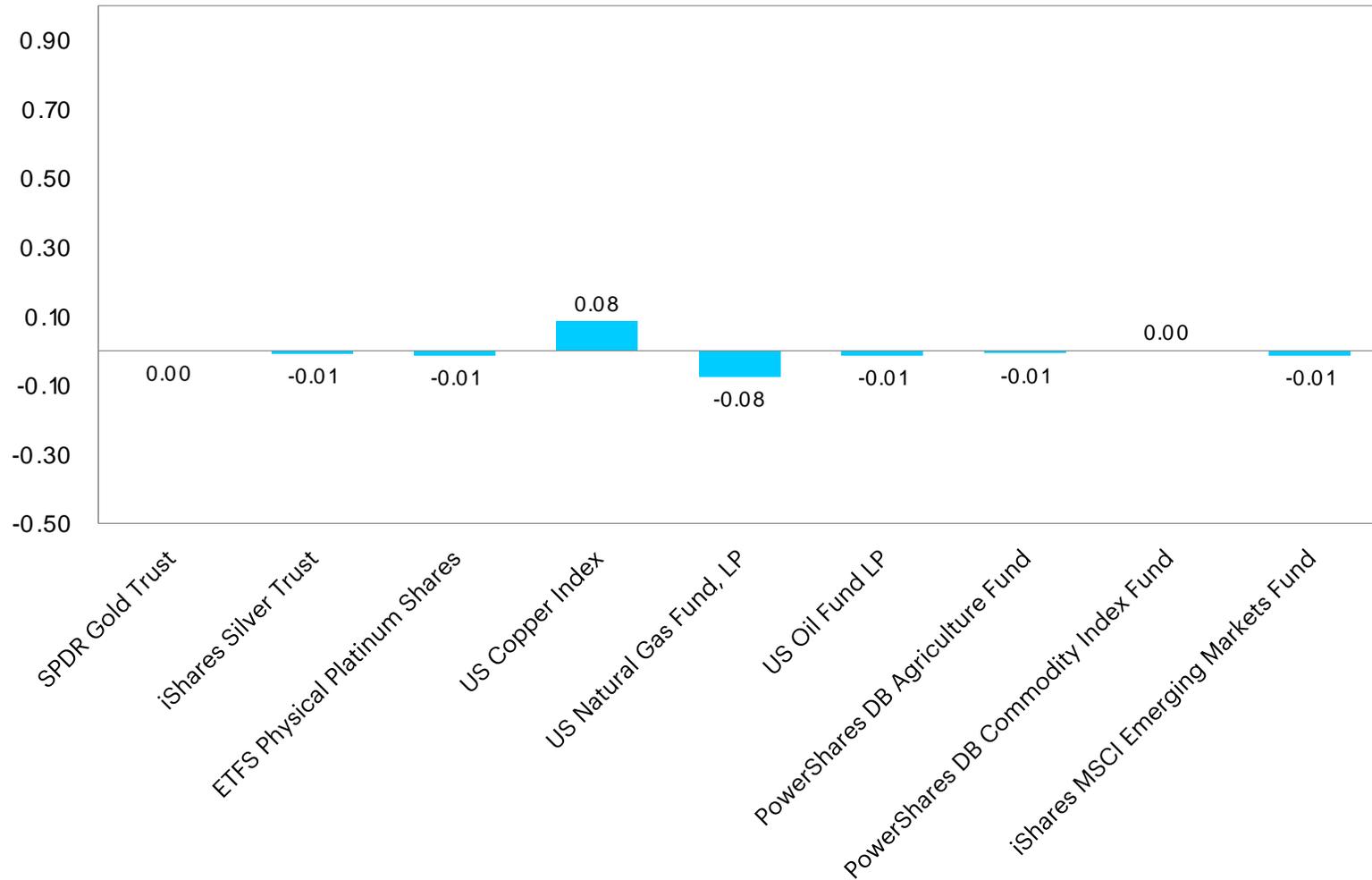
### Rolling 12-Month Volatility



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<sup>5</sup> Source: Bloomberg. Data from September 25, 2013 through March 15, 2017.

**Average 12-Month Correlation with Bitcoin**



<sup>6</sup> Source: Bloomberg. Data from September 25, 2013 through March 15, 2017.