

SECURITIES AND EXCHANGE COMMISSION  
(Release No. 34-78262; File No. SR-BatsBZX-2016-30)

July 8, 2016

Self-Regulatory Organizations; Bats BZX Exchange, Inc.; Notice of Filing of a Proposed Rule Change to BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, to List and Trade Winklevoss Bitcoin Shares Issued by the Winklevoss Bitcoin Trust

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 June 30, 2016, Bats BZX Exchange, Inc. (the “Exchange” or “BZX”) filed with the Securities and Exchange Commission (“Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. 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 filed a proposal to list and trade Winklevoss Bitcoin Shares (the “Shares”) issued by the Winklevoss Bitcoin Trust (the “Trust”) under BZX Rule 14.11(e)(4), Commodity-Based Trust Shares.

The text of the proposed rule change is available at the Exchange’s website at [www.batstrading.com](http://www.batstrading.com), at the principal office of the Exchange, and at the Commission’s Public Reference Room.

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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.

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 Exchange included 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 these 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

The Exchange proposes to list and trade the Shares under BZX Rule 14.11(e)(4),<sup>4</sup> which governs the listing and trading of Commodity-Based Trust Shares on the Exchange.<sup>5</sup> The Shares will be offered by the Trust, which was established as a Delaware statutory trust on December 30, 2014. The Trust will not be registered as an investment company under the Investment Company Act of 1940<sup>6</sup> and is not required to register under such act. The Trust will not be a commodity pool for purposes of the Commodity Exchange Act (“CEA”).<sup>7</sup> The Shares of the Trust will be registered with the Commission by means of the Trust’s registration statement on Form S-1 (the “Registration Statement”) under the Securities Act of 1933 (the “Securities Act”). The most recent amendment to the Registration Statement was filed on June 29, 2016 and the

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<sup>4</sup> The Commission approved BZX Rule 14.11(e)(4) in Securities Exchange Act Release No. 65225 (August 30, 2011), 76 FR 55148 (September 6, 2011) (SR-BATS-2011-018).

<sup>5</sup> All statements and representations made in this filing regarding (a) the description of the portfolio, (b) limitations on portfolio holdings or reference assets, or (c) the applicability of Exchange rules and surveillance procedures shall constitute continued listing requirements for listing the Shares on the Exchange.

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

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

Registration Statement will be effective as of the date of any offer and sale pursuant to the Registration Statement.<sup>8</sup>

### **Service providers of the Trust**

Digital Asset Services, LLC, formerly Math-Based Asset Services, LLC, will be the sponsor of the Trust (the “Sponsor”).<sup>9</sup> The Trust’s administrator (the “Administrator”)<sup>10</sup> and trust

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<sup>8</sup> See Registration Statement on Form S-1, dated June 29, 2016 (File No. 333-189752). The descriptions of the Trust and the Shares contained herein are based, in part, on information in the Registration Statement.

<sup>9</sup> The Sponsor is a Delaware limited liability company formed on May 9, 2013, and is wholly-owned by Winklevoss Capital Management LLC. Under the Delaware Limited Liability Company Act and the governing documents of the Sponsor, Winklevoss Capital Management LLC, the sole member of the Sponsor, is not responsible for the debts, obligations and liabilities of the Sponsor solely by reason of being the sole member of the Sponsor. The Sponsor will be the exclusive licensee, within the field of use of operation of an exchange-traded product (“ETP”), of certain patent-pending intellectual property regarding the operation of the Trust. Winklevoss IP LLC, an affiliate of the Sponsor, is the owner of and is licensing to the Sponsor such intellectual property for use by the Trust and the Custodian and other service providers in the operation of the Trust. The Sponsor arranged for the creation of the Trust and will arrange for the registration of the Shares for their public offering in the United States and their listing on the Exchange.

<sup>10</sup> The Administrator is generally responsible for the day-to-day administration of the Trust under the trust servicing agreement (“Trust Servicing Agreement”) and in accordance with the provisions of the trust agreement (“Trust Agreement”). This includes (1) assisting the Sponsor in receiving and processing orders from authorized participants (“Authorized Participants”) to create and redeem blocks of 50,000 Shares (a block of 50,000 Shares is called a “Basket”) and coordinating the processing of such orders with the Trust Agency Service Provider (which, in this case is, or is affiliated with, the Administrator) and The Depository Trust Company (“DTC”), (2) calculating the net asset value per Share (“NAV”), (3) instructing the Custodian to transfer the Trust’s bitcoin as needed to pay the remuneration due to the Sponsor (“Sponsor’s Fee”) in bitcoin (such Bitcoin transfers are expected to occur approximately monthly in the ordinary course), (4) instructing the Custodian to transfer the Trust’s bitcoin as needed to pay any extraordinary Trust expenses that are not assumed by the Sponsor and (5) selling or directing the sale of the Trust’s remaining bitcoin in the event of termination of the Trust and distributing the cash proceeds to the owners of beneficial interests in the Shares (“Shareholders”) of record.

agency service provider (the “Trust Agency Service Provider”) will be the same entity.<sup>11</sup> Gemini Trust Company, LLC will be the custodian of the Trust (the “Custodian”).<sup>12</sup> The Custodian is a New York State-chartered limited liability trust company that operates under the direct supervision and regulatory authority of the NYSDFS. The Custodian is a fiduciary and must meet the capitalization, compliance, anti-money laundering, consumer protection and cyber security requirements as set forth by the NYSDFS. The Custodian will hold the bitcoin deposited with the Custodian on behalf of the Trust in a segregated custody account (the “Trust Custody Account”) in accordance with the Trust Custody Agreement. The Custodian will use its proprietary and patent-pending offline (i.e., air-gapped) Cold Storage System to store the Trust’s

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<sup>11</sup> The Trust Agency Service Provider is authorized by the Sponsor under the Trust Agreement to serve as the transfer agent in accordance with the provisions of the Trust Agency Service Provider Agreement. The Trust Agency Service Provider, among other things, provides transfer agent services with respect to the creation and redemption of Baskets by Authorized Participants. The Trust Agency Service Provider is, or is affiliated with, the Administrator.

<sup>12</sup> The Custodian is an affiliate of the Sponsor and a New York State-chartered limited liability trust company that operates under the direct supervision and regulatory authority of the New York State Department of Financial Services (“NYSDFS”). Although the Trust’s bitcoin is not stored in a physical sense, all transactions involving the Trust’s bitcoin are recorded on the Bitcoin Network’s Blockchain and associated with a public Bitcoin address. The Trust’s public Bitcoin addresses are established by the Custodian using its proprietary hardware and software security technology (“Cold Storage System”), which holds the Trust’s bitcoin and permits the Trust to move its bitcoin. Access and control of those Bitcoin addresses, and the bitcoin associated with them, is restricted through the public-private key pair relating to each Bitcoin address. The Custodian is responsible for the safekeeping of the Trust’s private keys used to access and transfer the Trust’s bitcoin. The Custodian also facilitates the transfer of bitcoin in accordance with the Administrator’s instructions pursuant to the terms of the Trust Servicing Agreement. Pursuant to the terms of the Trust Agreement and the trust custody agreement (“Trust Custody Agreement”), the Custodian will store all of the Trust’s bitcoin on a segregated basis in its unique Bitcoin addresses with balances that can be directly verified on the Blockchain. It will provide the Trust’s public Bitcoin addresses to the Administrator. Pursuant to the provisions of the Trust Custody Agreement, the Custodian will use the Cold Storage System to manage and safeguard a system utilizing numerous Bitcoin addresses that are kept offline either (i) in computers that are not directly connected to or accessible from the internet or (ii) through the storage of the public and private keys relating to such Bitcoin addresses only in “cold storage.”

bitcoin, as further described herein. Delaware Trust Company acts as the trustee of the Trust (the “Trustee”).<sup>13</sup>

The Trust will only hold bitcoin, which is a digital commodity<sup>14</sup> that is not issued by any government, bank or central organization. Bitcoin is a digital asset (“Digital Asset”) based on the decentralized, open source protocol of the peer-to-peer Bitcoin computer network (the “Bitcoin Network” or “Bitcoin”)<sup>15</sup> that hosts the decentralized public transaction ledger, known as the “Blockchain,” on which all bitcoin is recorded. The Bitcoin Network software source code includes the protocols that govern the creation of bitcoin and the cryptographic system that secures and verifies Bitcoin transactions.

The Trust is expected to issue and redeem Shares from time to time only in one or more whole Baskets. Certain Authorized Participants are the only persons that may place orders to create or redeem Baskets. Authorized Participants or their affiliated market makers are expected to have the facility to participate directly on one or more Bitcoin Exchanges (as defined below).

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<sup>13</sup> The Trustee, a Delaware trust company, acts as the trustee of the Trust for the purpose of creating a Delaware statutory trust in accordance with the Delaware Statutory Trust Act (“DSTA”). The duties of the Trustee will be limited to (i) accepting legal process served on the Trust in the State of Delaware and (ii) the execution of any certificates required to be filed with the Delaware Secretary of State which the Delaware Trustee is required to execute under the DSTA. To the extent that, at law or in equity, the Trustee has duties (including fiduciary duties) and liabilities relating thereto to the Trust or the Shareholders, such duties and liabilities will be replaced by the duties and liabilities of the Trustee expressly set forth in the Trust Agreement.

<sup>14</sup> Bitcoin is a commodity as defined in Section 1a(9) of the Commodity Exchange Act. 7 U.S.C. § 1a(9). *See In re Coinflip, Inc.*, No. 15-29 (CFTC Sept. 17, 2015), *available at*: <http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfcoinfliporder09172015.pdf> (“Coinflip”).

<sup>15</sup> By common convention, Bitcoin with a capital “B” typically refers to the Bitcoin Network as a whole, whereas bitcoin with a lowercase “b” refers to the Digital Asset of the Bitcoin Network, including the Trust’s bitcoin. This naming convention is used throughout this document.

The investment objective of the Trust is for the Shares to track the price of bitcoin, as measured by the spot price at 4:00 p.m. Eastern time on the Gemini exchange (“Gemini Exchange”) (the “Gemini Exchange Spot Price”), each day the Exchange is open for trading (each a “Business Day”), less the Trust’s liabilities (which include accrued but unpaid fees and expenses). The Gemini Exchange is a Digital Asset exchange owned and operated by the Custodian and is an affiliate of the Sponsor. The Gemini Exchange does not receive any compensation from the Trust or the Sponsor for providing the Gemini Exchange Spot Price. The Sponsor believes that, for many investors, the Shares will represent a cost-effective and convenient means of gaining investment exposure to bitcoin similar to a direct investment in bitcoin. The Shares represent units of fractional undivided beneficial interest in and ownership of the Trust and are expected to be traded under the ticker symbol “COIN” on the Exchange.

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

Bitcoin is a Digital Asset that is issued by, and transmitted through, the decentralized, open source protocol of the peer-to-peer Bitcoin Network. The Bitcoin Network hosts the decentralized public transaction ledger, known as the Blockchain, on which all bitcoin is recorded. No single entity owns or operates the Bitcoin Network, the infrastructure of which is collectively maintained by a decentralized user base. Bitcoin 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 bitcoin exchanges (each a “Bitcoin Exchange”)<sup>16</sup> or in individual end-user-to-end-user transactions under a barter system. See “Uses of Bitcoin—Bitcoin Exchange Market,” below.

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<sup>16</sup> The Gemini Exchange is a United States-based Bitcoin Exchange that began trading on October 8, 2015. It is currently operational in 31 states and Washington, D.C. and allows trading between Bitcoin, U.S. Dollars, and other Digital Assets.

Bitcoin is “stored” or reflected on the Blockchain, which is a digital file stored in a decentralized manner on the computers of each Bitcoin Network user. The Bitcoin Network software source code includes the protocols that govern the creation of bitcoin and the cryptographic system that secures and verifies Bitcoin transactions. The Blockchain is a canonical record of every bitcoin, every Bitcoin transaction (including the creation or “mining” of new bitcoin) and every Bitcoin address associated with a quantity of bitcoin. The Bitcoin Network and Bitcoin Network software programs can interpret the Blockchain to determine the exact bitcoin balance, if any, of any public Bitcoin address listed in the Blockchain as having taken part in a transaction on the Bitcoin Network. The Bitcoin Network utilizes the Blockchain to evidence the existence of bitcoin in any public Bitcoin address. A Bitcoin private key controls the transfer or “spending” of bitcoin from its associated public Bitcoin address. A Bitcoin “wallet” is a collection of private keys and their associated public Bitcoin addresses.

The Blockchain is comprised of a digital file, downloaded and stored, in whole or in part, on all Bitcoin Network 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. See “Bitcoin Mining & Creation of New Bitcoin.” 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. 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 of the Bitcoin Network. Each Bitcoin transaction is broadcast to the Bitcoin Network and recorded in the Blockchain.

The Bitcoin Network is decentralized and does not rely on either governmental authorities or financial institutions to create, transmit or determine the value of bitcoin. Rather, bitcoin is created and allocated by the Bitcoin Network protocol through a “mining” process subject to a strict, well-known issuance schedule. The value of bitcoin is determined by the supply of and demand for bitcoin in the “Bitcoin Exchange Market”<sup>17</sup> (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 Network software and bitcoin can be transferred without the involvement of intermediaries or third parties, there are currently little or no transaction fees in direct peer-to-peer transactions on the Bitcoin Network. Third party service providers such as Bitcoin Exchanges and third-party Bitcoin payment processing services may charge fees for processing transactions and for converting, or facilitating the conversion of, bitcoin to or from fiat currency.

The Bitcoin Network was initially contemplated in a white paper that also described bitcoin and the operating software to govern the Bitcoin Network. The white paper was purportedly authored by Satoshi Nakamoto; however, no individual with that name has been reliably identified as Bitcoin’s creator, and the general consensus is that the name is a pseudonym for the actual inventor or inventors. The first bitcoin was created in 2009 after Nakamoto released the Bitcoin Network source code (the software and protocol that created and launched the Bitcoin Network). Since its introduction, the Bitcoin Network has been under active development by a group of contributors currently headed by Wladimir J. van der Laan who was appointed project maintainer in April 2014 by Gavin Andresen (who was previously appointed

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<sup>17</sup> For purposes of this filing, the term Bitcoin Exchange Market means the global Bitcoin Exchange Market for the trading of bitcoin, which consists of transactions on various electronic Bitcoin Exchanges.



maintainer by Satoshi Nakamoto in 2010). As an open source project, Bitcoin is not represented by an official organization or authority.

### Overview of the Bitcoin Network's Operations

In order to own, transfer or use bitcoin, a person generally must have internet access to connect to the Bitcoin Network. Bitcoin transactions 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 bitcoin, a user must notify the Bitcoin Network of the transaction by broadcasting the transaction data to its network peers. The Bitcoin Network provides confirmation against double-spending by memorializing every transaction in the Blockchain, which is publicly accessible and transparent. This memorialization and verification against double-spending is accomplished through the Bitcoin Network mining process, which adds “blocks” of data, including recent transaction information, to the Blockchain. See “Cryptographic Security Used in the Bitcoin Network—Double-Spending and the Bitcoin Network Confirmation System,” below.

### Brief Description of Bitcoin Transfers

Prior to engaging in Bitcoin transactions, a user generally must first install on its computer or mobile device a Bitcoin Network software program that will allow the user to generate a private and public key pair associated with a Bitcoin address (analogous to a Bitcoin account). The Bitcoin Network software program and the Bitcoin address also enable the user to connect to the Bitcoin Network and engage in the transfer of bitcoin with other users. The computer of a user that downloads a version of the Bitcoin Network software program will become a “node” on the Bitcoin Network that assists in validating and relaying transactions from other users. See “Cryptographic Security Used in the Bitcoin Network—Double-Spending and

the Bitcoin Network Confirmation System,” below. Alternatively, a user may retain a third party to create a Bitcoin address, or collection of Bitcoin addresses known as a digital wallet to be used for the same purpose. There is no limit on the number of Bitcoin addresses a user can have, and each such Bitcoin address consists of a “public key” and a “private key,” which are mathematically related. See “Cryptographic Security Used in the Bitcoin Network—Public and Private Keys,” below.

In a Bitcoin transaction, the bitcoin recipient must provide its public Bitcoin address, which serves as a routing number for the recipient on the Blockchain, to the party initiating the transfer. This activity is analogous to a recipient providing a routing address in wire instructions to the payor so that cash may be wired to the recipient’s account. The recipient, however, does not make public or provide to the sender its related private key. The payor, or “spending” party, does reveal its public key in signing and verifying its spending transaction to the Blockchain.

Neither the recipient nor the sender reveal their public Bitcoin addresses’ private key in a transaction, because the private key authorizes access to, and transfer of, the funds in that Bitcoin address to other users. Therefore, if a user loses his private key, the user permanently loses access to the bitcoin contained in the associated Bitcoin address. Likewise, bitcoin is irretrievably lost if the private key associated with them is deleted and no backup has been made. When sending bitcoin, a user’s Bitcoin Network software program must “sign” the transaction with the associated private key. The resulting digitally signed transaction is sent by the user’s Bitcoin Network software program to the Bitcoin Network to allow transaction confirmation. The digital signature serves as validation that the transaction has been authorized by the holder of the Bitcoin addresses’ private key. This signature process is typically automated by software that has access to the public and private keys.

## Summary of a Bitcoin Transaction

In a Bitcoin transaction between two parties, the following circumstances must be in place: (i) the party seeking to send bitcoin must have a public Bitcoin address and the Bitcoin Network must recognize that public Bitcoin address as having sufficient bitcoin for the spending transaction; (ii) the receiving party must have a public Bitcoin address; and (iii) the spending party must have internet access with which to send its spending transaction.

Next, the receiving party must provide the spending party with its public Bitcoin address, an identifying series of twenty-seven (27) to thirty-four (34) alphanumeric characters that represents the routing number on the Bitcoin Network and allow the Blockchain to record the sending of bitcoin to that public Bitcoin address. 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.

After the provision of a recipient's public Bitcoin address, the spending party must enter the address into its Bitcoin Network software program along with the number of bitcoin to be sent. The number of bitcoin to be sent will typically be agreed upon between the two parties based on a set number of bitcoin or an agreed upon conversion of the value of fiat currency to bitcoin. Most Bitcoin Network 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 Network software programs, but, when they are included, they are paid by the spending party on top of the specified amount of bitcoin being sent in the transaction.

Transaction fees, if any, are typically a fractional number of bitcoin (e.g., 0.005 or 0.0005

bitcoin) and are automatically transferred by the Bitcoin Network to the Bitcoin Network miner that solves and adds the block recording the spending transaction on the Blockchain.

After the entry of the Bitcoin address, the number of bitcoin 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 Network software program, which data packet includes data showing (i) the destination public Bitcoin address, (ii) the number of bitcoin 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 bitcoin being spent and record the flow of bitcoin from one transaction to the next transaction in which the bitcoin is spent. The digital signature exposes the spending party's public Bitcoin address and public key to the Bitcoin Network, though, for the receiving party, only its public Bitcoin address is revealed. The spending party's Bitcoin Network 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 Network miners within the course of less than a minute.

As discussed in greater detail below in "Bitcoin Mining & Creation of New Bitcoin," Bitcoin Network 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) 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 (1) 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.

Upon the addition of a block included in the Blockchain, the Bitcoin Network 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 public Bitcoin address, completing the bitcoin transaction. Typically, Bitcoin Network software programs will automatically check for and display additional confirmations of six or more blocks in the Blockchain. See "Cryptographic Security Used in the Bitcoin Network—Double-Spending and the Bitcoin Network Confirmation System."

## **Cryptographic Security Used in the Bitcoin Network**

### Public and Private Keys

The Bitcoin Network uses sophisticated cryptography to maintain the integrity of the Blockchain ledger. Transactions are digitally signed by their senders. Before adding a transaction to a block, miners will verify both that the sender has not already spent the bitcoin being sent and that the digital signature information in the transaction is valid. Besides the requirement of containing only valid transactions (as described in the preceding sentence), blocks are validated by means of properties of their cryptographic hashes. By extension, blocks in the Blockchain can be validated by verifying that each block contains the cryptographic hash of the prior block. The

cryptographic algorithms and cryptographic parameters, including key sizes, used by the Bitcoin Network provide adequate security for the foreseeable future.

### Double-Spending and the Bitcoin Network Confirmation System

To ensure the integrity of Bitcoin transactions from the recipient's side (i.e., to prevent double-spending by a spending party), 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 bitcoin transferred. See "Bitcoin Mining & Creation of New Bitcoin," below. Adding a block to the Blockchain requires Bitcoin Network miners to exert significant computational effort. Requiring this "proof of work" prevents a malicious actor from either adding fraudulent blocks to generate bitcoin (i.e., counterfeit bitcoin) or overwriting existing valid blocks to reverse prior transactions.

A Bitcoin transaction 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 a 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 they require until funds from the transferor are considered valid.

To undo past transactions in a block recorded on the Blockchain, a malicious actor would have to exert tremendous hashrate in resolving each block in the Blockchain starting with and after the target block and broadcasting all such blocks to the Bitcoin Network. The Bitcoin Network is generally programmed to consider the longest Blockchain containing solved blocks to be the most accurate Blockchain. In order to undo multiple layers of confirmation and alter the Blockchain, a malicious actor must resolve all of the old blocks sought to be regenerated and be able to continuously add new blocks to the Blockchain at a speed that would have to outpace that of all of the other miners on the Bitcoin Network, who would be continuously solving for and adding new blocks to the Blockchain. Given the size and speed of the Bitcoin Network, it is generally agreed that the cost of amassing such computational power exceeds the profit to be obtained by double-spending or attempting to fabricate prior blocks.

If a malicious actor is able to amass ten (10) percent of the Bitcoin Network's aggregate hashrate, there is estimated to be a 0.1 percent chance that it would be able to overcome six (6) confirmations. Therefore, given the difficulty in amassing such hashrate, six (6) confirmations is an often-cited standard for the validity of transactions. The Trust has adopted a policy whereby a transaction will be deemed confirmed upon this industry standard of six (6) confirmations (the "Confirmation Protocol"). As one (1) block is added to the Blockchain approximately every six (6) to twelve (12) minutes, a Bitcoin transaction will be, on average, confirmed using the Confirmation Protocol beyond a reasonable doubt in approximately one (1) hour. Merchants selling high-value goods and services, as well as Bitcoin Exchanges and many experienced users, are believed to generally use the six (6) confirmations standard. This confirmation system, however, does not mean that merchants must always wait for multiple confirmations for transactions involving low-value goods and services. As discussed below, the value of a

successful double-spending attack involving a low-value transaction may, and perhaps likely will, be significantly less than the cost involved in arranging and executing such double-spending attacks. Furthermore, merchants engaging in low-value transactions may then view the reward of quicker transaction settlements with limited or no Blockchain confirmation as greater than the related risk of not waiting for six (6) confirmations with respect to low-value transactions at points of sale. Conversely, for high-value transactions that are not time sensitive, additional settlement security can be provided by waiting for more than six (6) confirmations.

## **Bitcoin Mining & Creation of New Bitcoin**

### Mining Process

The process by which bitcoin is “mined” results in new blocks being added to the Blockchain and new bitcoin being issued to the miners. Bitcoin Network miners 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. Miners that are successful in adding a block to the Blockchain are automatically awarded a fixed number of bitcoin for their effort. This reward system is the method by which new bitcoin enter into circulation to the public and is accomplished in the added block through the notation of the new bitcoin creation and their allocation to the successful miner’s public Bitcoin address. To begin mining, a user can download and run Bitcoin Network mining software, which, like regular Bitcoin Network software programs, turns the user’s computer into a “node” on the Bitcoin Network that validates blocks. See “Overview of the Bitcoin Network’s Operations,” above.

All Bitcoin transactions are recorded in blocks added to the Blockchain. Each block contains (i) the details of some or all of the most recent transactions that are not memorialized in prior blocks, (ii) a reference to the most recent prior block, and (iii) a record of the award of

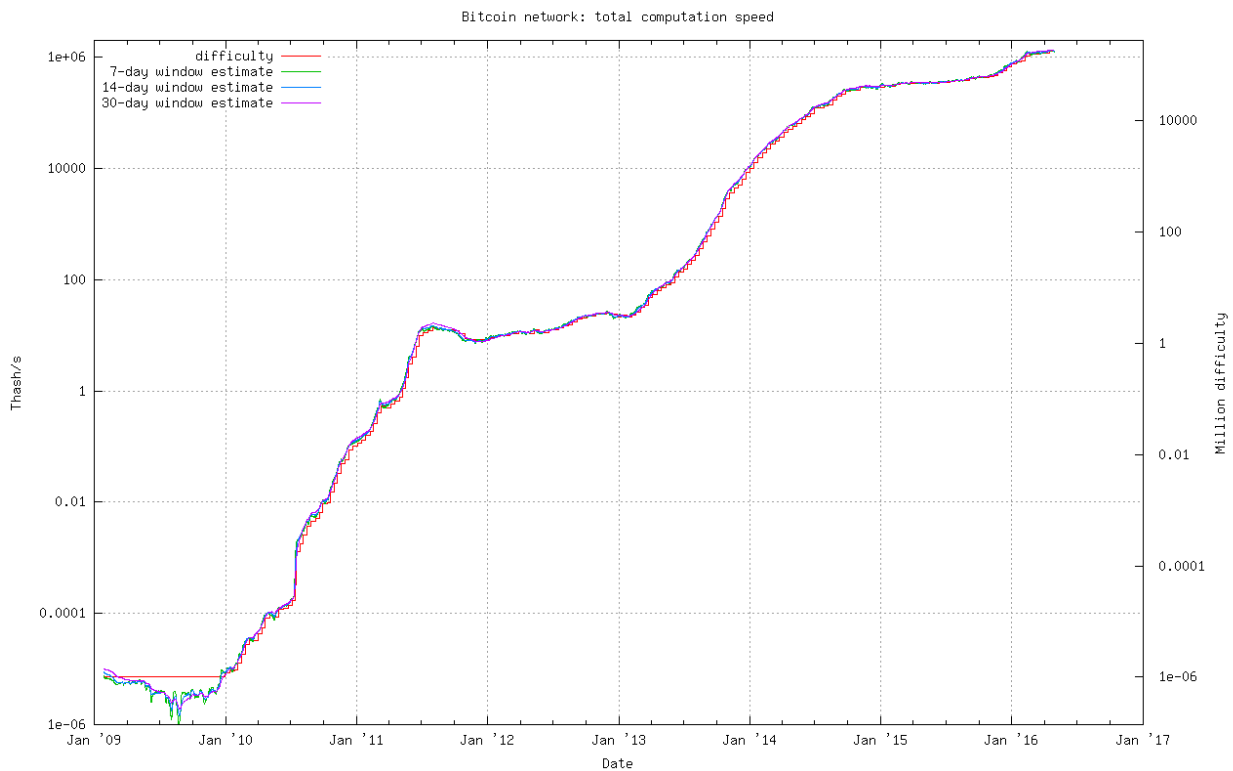


bitcoin to the miner who added the new block. In order to add blocks to the Blockchain, a miner must map an input data set (i.e., a reference to the immediately preceding block in the Blockchain, plus a block of the most recent Bitcoin Network transactions and an arbitrary number called a “nonce”) to a desired output data set of predetermined length (“hash value”) using a cryptographic hash algorithm. To “solve” or “calculate” a block, a miner must repeat this computation with a different nonce until the miner generates a hash of a block’s header that has a value less than or equal to the current target set by the Bitcoin Network. Each unique block can only be solved and added to the Blockchain by one (1) miner; therefore, all individual miners and mining pools on the Bitcoin Network are engaged in a competitive process and are incentivized to increase their computing power to improve their likelihood of solving for new blocks.

The cryptographic hash function that a miner uses is one-way only and is, in effect, irreversible: hash values are easy to generate from input data (i.e., valid recent network transactions, Blockchain and nonce), but neither a miner nor participant is able to determine the original input data solely from the hash value. As a result, generating a new valid block with a header value less than or equal to the target prescribed by the Bitcoin Network is initially difficult for a miner, yet other nodes can easily confirm a proposed block by running the hash function just once with the proposed nonce and other input data. 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, and the miner that solved such block receives the reward of a fixed number of bitcoin (plus any transaction fees paid by spenders of transactions that are recorded in the block). Therefore, “hashing” is akin to a mathematical lottery, and miners that have devices with greater

processing power (i.e., the ability to make more hash calculations per second) are more likely to be successful miners because they can generate more hashes or “entries” into that lottery.

As more miners join the Bitcoin Network and its aggregate hashrate increases, the Bitcoin Network automatically adjusts the complexity of the block-solving equation in an effort to set distribution such that newly-created blocks will be added to the Blockchain, on average, approximately every ten (10) minutes. Hashrate is added to the Bitcoin Network at irregular rates that have grown with increasing speed since early 2013, though the rate of additional mining power slowed steadily through 2014, until the computational speed of the network temporarily and marginally declined during December 2014. The following chart, sourced from Bitcoin.sipa.be, shows the estimated growth of the Bitcoin Network’s computational power from the first calendar quarter in 2009 to the first calendar quarter in 2016.



The rapid growth of the computational power of the Bitcoin Network means that blocks are typically solved faster than the Bitcoin protocol's target of, on average, approximately every ten (10) minutes. Although the difficulty of the mining process is adjusted on a periodic basis, after 2,016 blocks have been added to the Blockchain since the last adjustment, the average solution time for a block has been approximately 9.3 minutes for the one hundred and eighty (180) days prior to and including May 1, 2016.

### Incentives for Mining

Miners dedicate substantial resources to mining. Given the increasing difficulty of the target established by the Bitcoin Network, current miners must invest in expensive mining devices with adequate processing power to hash at a competitive rate. The first mining devices were standard home computers; however, mining computers are currently designed solely for mining purposes. Such devices include application specific integrated circuit ("ASIC") machines built by specialized companies such as BitFury. Miners also incur substantial electricity costs in order to continuously power and cool their devices while solving for a new block. In June 2013, blockchain.info estimated that the aggregate electricity costs of mining across the Bitcoin Network exceeded \$300,000 every twenty-four (24) hours. Although variables such as the rate and cost of electricity are estimated, as of September 1, 2013, blockchain.info had revised upward the average 24-hour electricity cost of all mining on the Bitcoin Network to more than \$1.5 million. In late 2013, blockchain.info ceased publishing estimated electric consumption on the Bitcoin Network, in part due to uncertainty in estimating electrical usage as newer, more energy efficient mining hardware became prevalent. As of May 2016, over the past year, two (2) years, and three (3) years, the aggregate hashrate of the Bitcoin Network has increased more than 3.76-fold, 22.33-fold and 17,730-fold, respectively, due in part to the development of more

energy efficient ASIC mining chips and, during the second half of 2013, the substantial increase in the price of bitcoin. Additionally, it can be estimated that the scale of total computing resources devoted to mining on the Bitcoin Network is commensurate with the total rewards, which was approximately \$1.6 million U.S. dollars per day as of May 1, 2016.

The Bitcoin Network is designed in such a way that the reward for adding new blocks to the Blockchain decreases over time and the production (and reward) of bitcoin will eventually cease. Once such reward ceases, it is expected that miners will demand compensation in the form of transaction fees to ensure that there is adequate incentive for them to continue mining. The amount of transaction fees will be based upon the need to provide sufficient revenue to incentivize miners, counterbalanced by the need to retain sufficient Bitcoin Network users (and transactions) to make mining profitable.

Though not free from doubt, Bitcoin industry participants have expressed a belief that transaction fees would be enforced through (i) mining operators collectively refusing to record transactions that do not include a payment of a transaction fee or (ii) the updating of Bitcoin Network software to require a minimum transaction fee payment. Indeed, most miners already have a policy regarding transactions fees, albeit the minimum fees are currently low under such policies. Under a regime whereby large miners require fees to record transactions, a transaction where the spending party did not include a payment of transaction fees would not be recorded on the Blockchain until a miner who does not require transaction fees solves for a new block (thereby recording all outstanding transaction records for which it has received data). If popular Bitcoin Network software were to require a minimum transaction fee, users of such programs would be required to include such fees; however, because of the open-source nature of the Bitcoin Network, there may be no way to require that all software instances include minimum

transaction fees for spending transactions. Alternatively, a future Bitcoin Network software update could simply build a small transaction fee payment into all spending transactions (e.g., by deducting a fractional number of bitcoin from all transactions on the Bitcoin Network as transaction fees).

The Bitcoin Network protocol already includes transaction fee rules and the mechanics for awarding transaction fees to the miners that solve for blocks in which the fees are recorded; however, users currently may opt not to pay transaction fees (depending on the Bitcoin Network software they use) and miners may choose not to enforce the transaction fee rules since, at present, the bitcoin rewards are far more substantial than transaction fees. As of April 2016, transaction fees accounted for an average of 1.44 percent of miners' total revenue based upon information available at [www.blockchain.info](http://www.blockchain.info), though the percentage of revenue represented by transaction fees is not static and fluctuates based on the number of transactions for which sending users include transaction fees, the levels of those transaction fees and the number of transactions a miner includes in its solved blocks. Typically, transactions do not have difficulty being recorded if transaction fees are not included.

### Mining Pools

A miner's daily expected reward is proportional to their contribution to the Bitcoin Network's aggregate hashrate. Given the limited number of blocks produced per day and the statistically uncertain nature of finding blocks, a small miner acting alone would experience very high variance in block rewards. Because of this fact most miners join mining pools wherein multiple miners act cohesively and share any rewards.

According to [blockchain.info](http://blockchain.info), as of April 28, 2016, the largest three (3) known mining pools were AntPool, F2Pool and BTCC Pool, which, when aggregated, represented

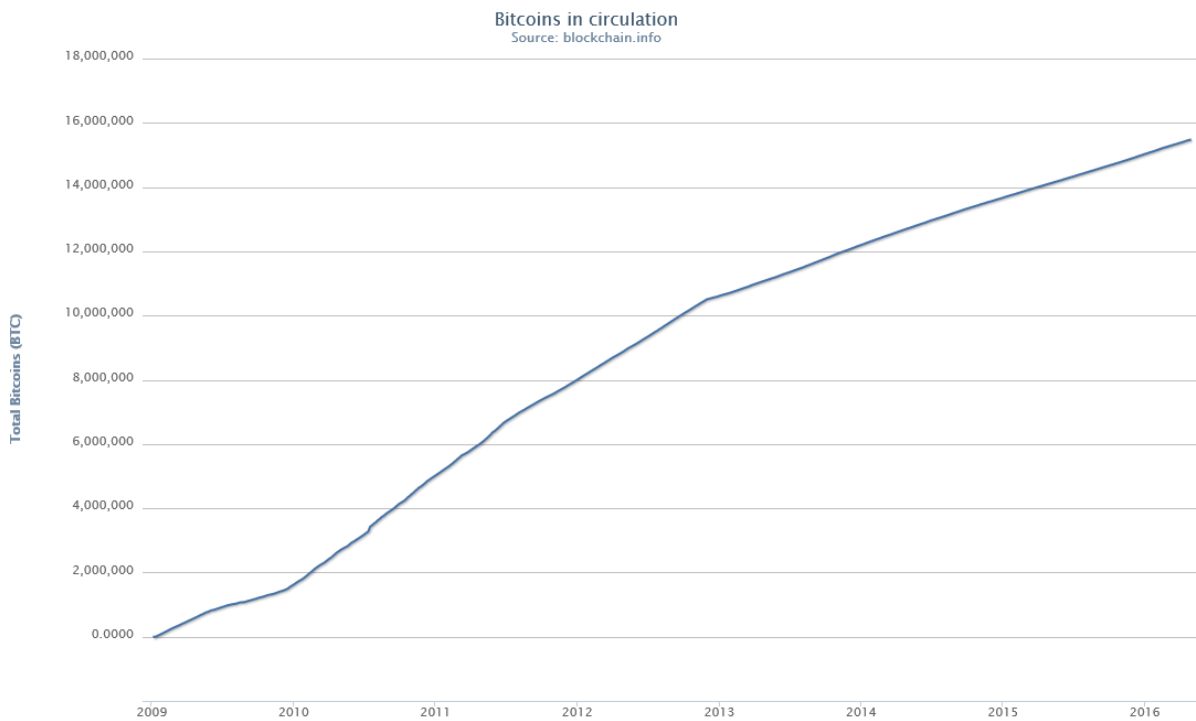
approximately sixty-three (63) percent of the aggregate hashrate of the Bitcoin Network (as calculated by determining the percentage of blocks mined by each such pool over the prior four (4) days). Also according to blockchain.info, on such date, the nine (9) largest pools (AntPool, F2Pool, BTCC Pool, BitFury, BW.COM, Slush, BitClub Network, Kano CKPool and KnCMiner) accounted for approximately ninety-seven (97) percent of the aggregate hashrate of the Bitcoin Network. In late May and early June 2014, reports indicated that a mining pool named GHash.io approached and, during a twenty-four (24)- to forty-eight (48)-hour period in early June, may have exceeded one-half of the aggregate hashrate of the Bitcoin Network, as measured by the self-reported hashrate of the pool and by measuring the percentage of blocks mined by the pool. As of April 28, 2016, GHash.io's percentage of the aggregate hashrate of the Bitcoin Network has since fallen to approximately two (2) percent. As of April 28, 2016, Antpool was determined to be the largest mining pool, having solved for twenty-eight (28) percent of the block discovered during the prior four (4) days.

### **Mathematically Controlled Supply**

The method for creating new bitcoin is mathematically controlled in a manner so that the supply of bitcoin grows at a limited rate pursuant to a pre-set schedule. The number of bitcoin awarded for solving a new block is automatically halved every two hundred and ten thousand (210,000) blocks. Thus, the current fixed reward for solving a new block is twenty-five (25) bitcoin per block and the reward will decrease by half to become twelve and a half (12.5) bitcoin in or around the start of July 2016 (based on estimates of the rate of block solution calculated by BitcoinClock.com). This deliberately controlled rate of bitcoin creation means that the number of bitcoin in existence will never exceed twenty-one (21) million and that bitcoin cannot be devalued through excessive production unless the Bitcoin Network's source code (and the

underlying protocol for bitcoin issuance) is altered. See “Modifications to the Bitcoin Protocol,” below. As of April 28, 2016, fifteen million, four hundred and eighty-two thousand, three hundred (15,482,300) bitcoin have been mined. It is estimated that more than ninety (90) percent of the twenty-one (21) million bitcoin will have been produced by 2022.

The following chart from blockchain.info indicates the number of bitcoin that have been mined since the Bitcoin Network began operation in January 2009 through April 2016.



## Modifications to the Bitcoin Protocol

Bitcoin is an open source project (i.e., a product whose source code is freely available to the public and that utilizes crowdsourcing to identify possible issues, problems and defects) and there is no official developer or group of developers that controls the Bitcoin Network. The Bitcoin Network’s development is furthered by a collection of active contributors who can access and propose alterations to the Bitcoin Network source code hosted on GitHub.com, an online service and forum used to share and develop open source code. Other programmers have

access to and can propose changes to the Bitcoin Network source code on GitHub.com, but some contributors have an elevated level of influence over the process. As a result, these contributors are responsible for quasi-official releases of updates and other changes to the Bitcoin Network's source code. Users and miners can accept any changes made to the Bitcoin Network (including those proposed by contributors) by downloading the proposed modification of the source code.

A modification of the source code is only effective with respect to the Bitcoin users and miners that download it. Consequently, as a practical matter, a modification to the source code (e.g., a proposal to increase the twenty-one (21) million total limit on bitcoin or to reduce the average confirmation time target from ten (10) minutes per block) only becomes part of the Bitcoin Network if accepted by participants collectively having an effective majority of the aggregate hashrate of the Bitcoin Network. Additionally, an issue may arise in which a modification is overwhelmingly supported by users but miners do not support it, or vice versa. If a modification is accepted only by a percentage of users and miners, a division in the Bitcoin Network will occur such that one (1) network will run the pre-modification source code and the other network will run the modified source code; such a division is known as a "fork" in the Bitcoin Network. It should be noted that, although their power to amend the source code is effectively subject to the approval of users and miners, some contributors have substantial influence over the development of the Bitcoin Network and the direction of the Bitcoin community.

## **Bitcoin Value**

### Bitcoin Exchange Valuation

The value of bitcoin is determined by the value that various market participants place on bitcoin through their transactions. The most common means of determining the value of a bitcoin



is by surveying one or more Bitcoin Exchanges where bitcoin is traded publicly and transparently (i.e., the Bitcoin Exchange Market) or an index tracking prices on the Bitcoin Exchange Market (e.g., the CoinDesk Bitcoin Price Index).

#### Bitcoin Exchange Public Market Data

On each online Bitcoin Exchange, bitcoin is traded with publicly disclosed valuations for each executed trade, measured by one or more fiat currencies such as the U.S. Dollar, the Euro or the Chinese Yuan. Bitcoin Exchanges typically publish trade data including last price, bid and ask information, and trade volume, among other data. Although each Bitcoin Exchange has its own market price, it is expected that most Bitcoin Exchanges' market prices should be relatively consistent with the Bitcoin Exchange Market average since market participants can choose the Bitcoin Exchange on which to buy or sell bitcoin (i.e., exchange shopping). Arbitrage between the prices on various Bitcoin Exchanges is possible, but varying fees and fiat currency deposit/withdrawal policies and other concerns appear to have, at times, prevented an active arbitrage mechanism among users on some Bitcoin Exchanges. For example, delayed fiat currency withdrawals imposed by Bitcoin Exchanges and the perceived risks associated with such delayed withdrawals have, at times, resulted in trading on such Bitcoin Exchange to be at a premium for certain periods.

#### Bitcoin Exchange Price Convergence

Price differentials across Bitcoin Exchanges remain; however, such differentials have been decreasing. For example, the daily opening price data for the one hundred (100) days prior to May 9, 2016 shows that the Bitifinex and BTC-e absolute price difference was less than 1% percent [sic] according to data from BitcoinWisdom.com. Since 2015, prices on U.S. Dollar-denominated Bitcoin Exchanges have generally been converging. In January of 2015, the

average range in prices across all Bitcoin Exchanges was approximately 3.80%; as of May 2016, that figure has dropped to less than 1.30%.<sup>18</sup> This convergence serves to illustrate the fungibility of bitcoin across Bitcoin Exchanges and the ease with which market participants transfer their assets amongst them.

### Bitcoin Exchange Market Manipulation

As the Bitcoin Exchange Market has evolved and matured, licensed entrants have emerged, including two (2) New York limited purpose trust companies, markedly changing the once concentrated and non-regulated landscape of the Bitcoin Exchange Market. For example, in the first half of 2013, Mt.Gox accounted for nearly three-quarters of all Bitcoin Exchange Market trading.<sup>19</sup> Any disruption to Mt.Gox trading, such as a distributed denial of service (“DDOS”) attack had a dramatic impact on the bitcoin price and subsequently the Bitcoin Exchange Market as a whole. Since then, the number of constituents in the Bitcoin Exchange Market has considerably increased and no single Bitcoin Exchange represents a systemically critical part or single point of failure of the Bitcoin ecosystem. In addition, the advent of market participants

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<sup>18</sup> See, e.g., <https://data.bitcoinity.org/markets/price/2y/USD?c=e&t=1>.

<sup>19</sup> For most of 2013, Mt. Gox (a Japanese exchange operated at [www.mtgox.com](http://www.mtgox.com) by Tibanne Co. Ltd.) was the largest online Bitcoin Exchange in the world. Supporting trading of bitcoin using sixteen (16) different fiat currencies, Mt. Gox accounted for nearly three-quarters of all Bitcoin Exchange Market trading during the first half of 2013. On February 25, 2014, Mt. Gox suspended trading on its platform and, three (3) days later, filed for bankruptcy protection in Japanese courts, stating that it had lost approximately eight hundred and fifty thousand (850,000) bitcoin, including approximately seven hundred fifty thousand (750,000) bitcoin belonging to its customers. Mt. Gox subsequently recovered access to approximately two hundred thousand (200,000) of the lost bitcoin. As no full, reliable accounting has been publicly provided, it is difficult to assess whether Mt. Gox’s collapse was due to cyber-attacks (including denial of service and hacking incidents reported in 2011 and 2013), mismanagement or fraud, although many market participants believe Mt. Gox’s collapse was due to the latter. Following the cessation of trading activity on its platform, Mt. Gox has been in bankruptcy proceedings in Japan and the United States and is in the process of liquidation.

who are chiefly arbitrageurs results in Bitcoin Exchange prices generally converging after dislodgement. Arbitrageurs must have funds distributed across multiple Bitcoin Exchanges in order to take advantage of temporary price dislocations, thereby discouraging the strong concentration of funds on any particular Bitcoin Exchange. As a result, the potential for manipulation on a particular Bitcoin Exchange would require overcoming the liquidity supply of such arbitrageurs who are actively eliminating any cross-market pricing differences.

### The Gemini Exchange

The Gemini Exchange, an affiliate of the Sponsor, is a Digital Asset exchange that has a U.S. dollar-denominated bitcoin order book. As a facility of a New York State-chartered limited liability trust company, the Gemini Exchange is one of only two (2) Bitcoin Exchanges in the world that have such a high level of regulatory oversight. The Bitcoin Exchange Market has experienced several significant incidents at unregulated Bitcoin Exchanges and it is widely-believed that much of the self-reported trade volume numbers of unregulated Bitcoin Exchanges are inaccurate (either intentionally or unintentionally). The Gemini Exchange was established in an effort to improve the Bitcoin ecosystem by having a regulated entity where participants could engage in trading bitcoin.

In establishing the Gemini Exchange, Gemini Trust Company, LLC worked closely with the NYSDFS to obtain a limited purpose trust company license. The term “limited purpose trust company” refers to entities that are chartered under the bank and trust company provisions of the New York Banking Law. Under New York Banking Law, a “trust company” has general powers available to banks and trust companies, as well as powers generally associated with trustees and other fiduciaries.

Apart from general fiduciary powers, the following activities are among those specifically identified in the statute as activities that New York Trust Companies may conduct with respect to their fiduciary accounts, including (i) the power to accept deposits exclusively in a fiduciary capacity, to receive and disburse money, to transfer, register and countersign evidences of indebtedness or other securities, and to act as attorney in fact or agent;<sup>20</sup> and (ii) the power to accept appointment as receiver, trustee, or committee of the property of an estate of any person in insolvency or bankruptcy proceedings.

A “limited purpose” trust company must conduct its business and operations subject to the limitations or restrictions as the NYSDFS may prescribe in its sole discretion. In practice, most limited purpose trust companies typically engage in activities such as employee benefit trust, personal trust, corporate trust, transfer agency, securities clearance, investment management, and custodial services. A trust company, including a limited purpose trust company like Gemini Trust Company, LLC, can serve as the custodian of customer funds itself.

Under New York Banking Law, the same general procedures, requirements and criteria for the formation of a full-service bank apply also to the formation of a limited purpose trust company with two (2) exceptions: (i) no requirement to carry FDIC insurance and (ii) a level of capitalization deemed satisfactory to the Superintendent of Financial Services. Once submitted in acceptable form, a limited purpose trust company application receives the same level of scrutiny as other bank and trust company proposals and ultimately requires the approval of the Superintendent of Financial Services. In addition, trust companies are subject to many of the same requirements that apply to a bank operating under a New York State banking charter,

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<sup>20</sup> N.Y. Banking Law § 100 (McKinney).

including: (i) capital requirements, (ii) implementation of an anti-money laundering program,<sup>21</sup> (iii) implementation of a cyber security program, and (iv) consumer protection disclosures.<sup>22</sup>

Furthermore, as a limited purpose trust company with fiduciary powers under the Banking Law, all activities of a trust company, including all exchange functions, are subject to examination and supervision by the NYSDFS. Gemini Trust Company, LLC complies with the capital requirements under New York State banking law, has implemented the required anti-money laundering program and cybersecurity program and makes the required consumer protection disclosures. As a facility of a regulated entity, the Gemini Exchange is obliged to put the interests of its customers before its own, to provide accurate public market data and pricing information and to monitor for and prevent market manipulation.

As part of its supervision under the NYSDFS and New York Banking Law, Gemini Trust Company, LLC must (i) undergo semiannual bank exams, (ii) submit quarterly financial updates to NYSDFS, (iii) submit independent third-party year-end audited financial statements to NYSDFS,<sup>23</sup> (iv) submit semiannual Federal Financial Institutions Examination Council

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<sup>21</sup> In particular, a prospective trust company must establish policies and procedures designed to ensure and monitor compliance with the Bank Secrecy Act (“BSA”) as amended by the USA PATRIOT Act and the anti-money laundering programs of Part 115 of the General Regulations of the Banking Board. A compliance program must include, at a minimum, a system of internal controls to assure ongoing compliance, independent testing for compliance to be conducted by bank personnel or by an outside party, the designation of an individual or individuals responsible for coordinating and monitoring day-to-day compliance, and training for appropriate personnel.

<sup>22</sup> Limited purpose trust companies operating virtual currency exchanges are required to provide disclosures to current and prospective customers (in a form approved by NYSDFS) regarding the risks of its services and products and are also required to disclose to current and prospective customers the terms and conditions for using the trust company’s products and services prior to any customer using the product or service.

<sup>23</sup> Gemini Trust Company, LLC, successfully completed an independent third-party opening day Balance Sheet audit for October 2, 2015 as well as an independent third-party year-end Financial Statements audit for December 31, 2015. No material issues, weaknesses or concerns were raised.

(“FFIEC”) Call Reports<sup>24</sup> to the NYSDFS, and (v) undergo an annual third-party review of its overall security program as implemented by its Chief Security Officer (“CSO”) that may take the form of a Service Organization Controls (“SOC”) Level 2 audit.

The Gemini Exchange is not the only venue on which Authorized Participants can purchase bitcoin for delivery to the Trust, but it may provide a convenient and stable venue given its regulatory oversight and superior liquidity characteristics. While Authorized Participants are not obliged to use the Gemini Exchange to trade their bitcoin, it may prove to be an efficient way to do so.

#### Gemini Exchange Spot Price

The Trust values its bitcoin as measured at 4:00 p.m. Eastern time using the Gemini Exchange Spot Price on each Business Day. The Gemini Exchange Spot Price is the price of bitcoin on the Gemini Exchange as of 4:00 p.m. Eastern time on each Business Day.

The Sponsor believes that the Gemini Exchange Spot Price is representative of the accurate price of bitcoin because of the positive price discovery attributes of the Gemini Exchange marketplace. According to market data on bitcoinity.org, as of May 23, 2016, the Gemini Exchange is a top three (3) U.S.-based Bitcoin Exchange by volume for the seven (7) days prior and had the tightest spread as a percentage of price, the tightest spread ten (10) bitcoin wide on the bid and ask, the tightest spread one hundred (100) bitcoin wide on the bid and ask and the lowest volatility (i.e., smallest standard deviation) of any U.S. dollar-denominated bitcoin order book on any Bitcoin Exchange in the world. In addition, since opening in October 2015, the Gemini Exchange Spot Price differed from the median price of all U.S. Dollar-denominated Bitcoin Exchanges by 0.35% on average; that difference dropped to 0.15% on

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<sup>24</sup> Gemini Trust Company, LLC, successfully completed and filed its first FFIEC Call Report with the NYSDFS on February 1, 2016.

average in May 2016<sup>25</sup>. These facts, taken together, suggest that the Gemini Exchange Spot Price is representative and indicative of the larger Bitcoin marketplace.

As discussed above, the Gemini Exchange is uniquely positioned because of its regulatory status and licensing as a venue on which traditional financial institutions may be comfortable transacting in bitcoin. These institutions provide a vital bridge to the equities markets and other capital markets, serving to enrich price discovery, liquidity, and transparency. The Trust has entered into preliminary conversations with a number of potential Authorized Participants as well as market makers, each of which is an experienced participant in the ETP<sup>26</sup> marketplace and is actively engaged in trading ETPs. A number of these potential Authorized Participants, currently trade bitcoin and are already registered participants that trade on the Gemini Exchange. Authorized Participants will not be required to use the Gemini Exchange to trade their bitcoin, and the Gemini Exchange is not the only venue on which Authorized Participants can purchase bitcoin for delivery to the Trust. However, the Gemini Exchange may provide a convenient and stable venue in which to purchase bitcoin, as well as an efficient way to trade bitcoin, given its regulatory oversight and superior liquidity characteristics.<sup>27</sup> See “Bitcoin Value—The Gemini Exchange” above.

## **Bitcoin Market**

### Global Bitcoin Market

Global trade in bitcoin consists of individual end-user-to-end-user transactions, together with facilitated exchange-based bitcoin trading on “lit” markets as well as “dark pools”. A

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<sup>25</sup> Id.

<sup>26</sup> For purposes of this filing, the term ETP means any product that may be listed on the Exchange pursuant to Rule 14.11.

<sup>27</sup> See, e.g., [https://data.bitcoinity.org/markets/exchanges/USD/30d#volatility\\_asc](https://data.bitcoinity.org/markets/exchanges/USD/30d#volatility_asc).

limited market currently exists for bitcoin-based derivatives. The Trust represents the first known ETP in the United States that seeks to track the price of a Digital Asset (a “Digital Asset ETP”). Securitized instruments have been created for other marketplaces, but have encountered limited success due to their lack of transparency and thorough regulatory oversight. Two notable examples are the Grayscale Investment Trust, which trades under the ticker GBTC on OTC Markets (formerly the “Pink Sheets”) and does not qualify as an exchange-listed product, and Bitcoin Tracker One, which trades under the ticker COINXBT on the Stockholm Stock Exchange. Neither of these instruments are held to the same regulatory scrutiny and oversight as a security listed under the Securities Act. Because of the high standards pursued in the creation and listing of the Trust, it will finally provide investors with a reliable and transparent vehicle for access to bitcoin as an asset class.

#### End-User-to-End-User

The Bitcoin end-user-to-end-user ecosystem operates on a continuous, 24-hour per day basis. This is accomplished through decentralized peer-to-peer transactions between parties on a principal-to-principal basis. All risks and issues of credit are between the parties directly involved in the transaction. Liquidity can change from time to time during the course of a 24-hour trading day. The Bitcoin Network rules that require transaction fees are generally not enforced; therefore transaction costs, if any, are negotiable between the parties and may vary widely, although, where transaction fees are included, they are paid by the spending party in a Bitcoin transaction. These transactions occur remotely through the Internet or in-person through forums such as Satoshi Square (an open-air bitcoin trading market held in New York City) and bulletin boards such as LocalBitcoins. Marketplaces like LocalBitcoins and ICBIT are intended



to bring together counterparties trading in bitcoin but do not provide any clearing or intermediary function and may or may not report transaction data such as price and volume.

#### Bitcoin Exchange “Lit” Market

Online Bitcoin Exchanges traded over \$450,000,000 dollars of notional value during a twenty-four (24) hour period on May 31, 2016.<sup>28</sup> These marketplaces provide significant data with respect to prevailing valuations of bitcoin. Most Bitcoin Exchanges operate through pooled account systems, whereby the users of the Bitcoin Exchange send bitcoin and/or fiat currency to an account of the Bitcoin Exchange, which records user sub-account balances in a ledger entry system. Trades on pooled account exchanges are typically conducted “off-Blockchain,” meaning that they are settled by reallocating bitcoin and money to and from users on the balanced ledger of the Bitcoin Exchange. Therefore, a trade on a pooled account exchange will not result in a Bitcoin transaction being transmitted and subsequently recorded on the Blockchain, or of a money transfer going from one bank account to another. For a pooled-account Bitcoin Exchange, Bitcoin transactions and money transfers typically only occur during the withdrawal or deposit of bitcoin or fiat currency by an exchange customer, or if the Bitcoin Exchange needs to shift bitcoin or fiat currency between its pooled accounts for internal purposes. Nevertheless, Bitcoin Exchanges typically publish trade data including last price, bid and ask information, and trade volume, among other data, on their respective websites and through application programming interfaces (“APIs”).

As noted above, Gemini Exchange, an affiliate of the Sponsor and the source of the Gemini Exchange Spot Price used by the Trust to calculate its NAV, operates the website [www.gemini.com](http://www.gemini.com). Gemini Exchange is owned and operated by Gemini Trust Company, LLC,

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<sup>28</sup> See, e.g., <https://data.bitcoinity.org/markets/volume/30d?c=e&t=a>

the Trust's Custodian. As a facility of a New York State-chartered limited liability trust company, Gemini Exchange operates under the direct supervision and regulatory authority of the NYSDFS. The Gemini Trust Company is a fiduciary and must meet the capitalization, compliance, anti-money laundering, consumer protection and cyber security requirements as set forth by the NYSDFS. Gemini Exchange's principal business is to provide an electronic trading platform and associated online presence to allow customers to exchange fiat currency (e.g., U.S. Dollars) for Digital Assets (e.g., bitcoin or ether) and vice versa.

#### Bitcoin Exchange Market "Dark Pools" and OTC Trading

In addition to transparent or "lit" online Bitcoin Exchanges with a traditional central limit order book structure, some trading in bitcoin takes place on an on-demand or over-the-counter ("OTC") basis. Similar to mature securities, there are also private request for quote (RFQ) venues and "dark pools," which are bitcoin trading platforms that do not publicly report limit order book data. Market participants have the ability to execute large block trades in a dark pool without revealing those trades and the related price data to the public Bitcoin Exchange Market; however, any withdrawal from or deposit to a dark pool platform must ultimately be recorded on the Blockchain, as must OTC transactions. Genesis Trading also operates a form of dark pool through a trading desk that buys and sells blocks of bitcoin without publicly reporting trade data. In June 2015, Kraken, a Bitcoin Exchange, launched a dark pool for bitcoin trades separate from its public central limit order book. Informal dark pools are currently believed to exist, particularly among wholesale buyers of bitcoin and Bitcoin Network mining groups that obtain 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. As the Bitcoin Exchange Market and bitcoin dark pools have a limited history and no publicly available

limit order book data, it is difficult to estimate the impact of dark pools on the Bitcoin Exchange Market.

### Global Bitcoin Derivatives Markets

Nascent derivatives markets for bitcoin now exist. For example, certain types of options, futures contracts for differences and other derivative instruments are available in certain jurisdictions; however, many of these are not available in the United States and generally are not regulated to the degree that U.S. investors expect derivative instruments to be regulated. The U.S. Commodity Futures Trading Commission (“CFTC”) has approved TeraExchange, LLC as a swap execution facility (“SEF”), on which bitcoin swap contracts may be entered into. On October 9, 2014, TeraExchange announced that it had hosted the first executed bitcoin swap traded on a CFTC-regulated platform. Additionally, in September 2015, the CFTC issued an order temporarily registering LedgerX LLC as a SEF. LedgerX also previously applied for registration as a derivatives clearing organization (“DCO”) although its application is still in the process of CFTC approval. Other parties have acknowledged submitting applications for registration to the CFTC, though no other bitcoin-focused derivatives platform has been approved for registration by the CFTC. Various platforms and Bitcoin Exchanges also offer trading on margin. Currently, the open interest in these bitcoin derivative instruments is quite limited in comparison to the volume of actual bitcoin trades. CFTC commissioners have previously expressed publicly that derivatives based on Digital Assets such as bitcoin are subject to regulation by the CFTC, including oversight to prevent market manipulation of the price of bitcoin. As previously noted, in the September 2015 Coinflip case, the CFTC instituted and settled administrative proceedings that involved a bitcoin derivatives trading platform and its

chief executive officer. In *Coinflip*,<sup>29</sup> the CFTC determined that bitcoin and other “virtual currencies” (aka Digital Assets) are properly defined as commodities under the CEA and CFTC regulations, and applied CEA provisions and CFTC regulations that apply to transactions in commodity options and swaps to the conduct of the bitcoin derivatives trading platform. The CFTC affirmed its approach to the regulation of bitcoin and bitcoin-related enterprises on June 2, 2016, when the CFTC settled charges against Bitfinex, a Bitcoin Exchange based in Hong Kong. In its Order, the CFTC found that Bitfinex engaged in “illegal, off-exchange commodity transactions and failed to register as a futures commission merchant” when it facilitated borrowing transactions among its users to permit the trading of bitcoin on a “leveraged, margined or financed basis” without first registering with the CFTC.<sup>30</sup> While the Commission has not opined on the legal characterization of bitcoin as a security, it has taken various actions against persons or entities misusing bitcoin in connection with fraudulent schemes (*i.e.*, Ponzi schemes), inaccurate and inadequate publicly disseminated information, and the offering of unregistered securities.<sup>31</sup>

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<sup>29</sup> See *supra* note 13.

<sup>30</sup> See *In re BFXNA Inc.*, No. 16-19 (CFTC June 2, 2016), available at: <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfbfxnaorder060216.pdf>.

<sup>31</sup> See, *e.g.*, Complaint and Demand for Jury Trial, *SEC v. Homero Joshua Garza, GAW Miners, LLC and ZenMiner, LLC*, Case 3:15-cv-01760 (D. Conn. Dec. 1, 2015) (The Commission brought charges in connection with a bitcoin-related Ponzi scheme); *SEC v. Erik T. Voorhees*, SEC Administrative Proceeding File No. 3-15902 (June 3, 2014), available at <https://www.sec.gov/litigation/admin/2014/33-9592.pdf> (The Commission brought an administrative action in connection with the offering of unregistered securities of two bitcoin-related entities.); *BTC Trading, Corp. and Ethan Burnside*, Securities Act Release No. 9685 (Dec. 8, 2014), available at <http://www.sec.gov/litigation/admin/2014/33-9685.pdf> (The Commission brought an administrative action in connection with the operation and offering of securities of two online exchanges, neither of which were registered with the Commission, that accepted payment in bitcoin and primarily listed virtual currency-related companies.); *SEC v. Sand Hill Exchange, et al.*, Securities Act Release No. 9809 (June 17, 2015), available at

## Goods and Services

Bitcoin can also be used to purchase goods and services, either online or at physical locations, although reliable data is not readily available about the retail and commercial market penetration of the Bitcoin Network. In January 2014, U.S. national online retailers Overstock.com and TigerDirect began accepting Bitcoin payments. Over the course of 2014, computer hardware and software company Microsoft began accepting bitcoin as online payment for certain digital content, online retailer NewEgg began accepting bitcoin, and computer hardware company Dell began accepting bitcoin. There are thousands of additional online merchants that accept bitcoin, and the variety of goods and services for which bitcoin can be exchanged is increasing. Currently, local, regional and national businesses, including Time Inc., Wikimedia, WordPress, Expedia and Fodler, accept bitcoin. Bitcoin service providers such as BitPay, Coinbase and GoCoin and online gift card retailer Gyft provide other means to spend bitcoin for goods and services at additional retailers. There are also many real-world locations that accept bitcoin throughout the world.

As of April 2016, it was estimated that as many as one hundred thousand (100,000) merchants or businesses accept, or have the technological infrastructure to choose to accept (e.g., Shopify merchants), bitcoin as payment. In September 2014, payments giant PayPal announced a partnership with BitPay, Coinbase and GoCoin to expand their Bitcoin-related services to PayPal's merchant customers, thereby significantly expanding the reach of bitcoin-accepting merchants. To date, the rate of consumer adoption and use of bitcoin in paying merchants has trailed the broad expansion of retail and commercial acceptance of bitcoin. Nevertheless, there

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<https://www.sec.gov/litigation/admin/2015/33-9809.pdf> (The Commission took legal action against an online exchange that accepted payment in bitcoin in connection with disseminating fraudulent information, among other matters.).

will likely be a strong correlation between continued expansion of the Bitcoin Network and its retail and commercial market penetration.

## **Market Participants**

### Miners

Miners range from Bitcoin enthusiasts to professional mining operations that design and build dedicated machines and data centers, but the vast majority of mining is now undertaken by participants in mining pools. See “Bitcoin Mining & Creation of New Bitcoin” above.

### Investment and Speculative Sector

This sector includes the investment and trading activities of both private and professional investors and speculators. These participants range from exchange-traded products, such as ARK Web x.0 ETF, or hedge funds such as the Pantera Bitcoin Fund Ltd. to day-traders who invest in bitcoin by trading on Bitcoin Exchanges such as Slovenia-based BitStamp and Hong Kong-based Bitfinex. See “Uses of Bitcoin—Bitcoin Exchange Market” below.

Historically, larger financial services institutions are publicly reported to have limited involvement in investment and trading in bitcoin. In December 2013, Wedbush Securities and Bank of America Merrill Lynch released preliminary research reports on Bitcoin as both a payment tool and investment vehicle. Additionally in December, the Federal Reserve Bank of Chicago released a primer on Bitcoin prepared by a senior economist. In early 2014, Fitch Ratings, Goldman Sachs, JPMorgan Chase, PricewaterhouseCoopers, UBS Securities and Wedbush Securities, among others, released additional research reports analyzing the Bitcoin Network on the basis of bitcoin value, technological innovation or payment system mechanics. In December 2014, the Federal Reserve Board’s Divisions of Research & Statistics and Monetary Affairs released an analysis of the Bitcoin Network’s transaction system and the

Bitcoin Exchange Market's economics. Additionally, institutions including Fortress Investment Group and Pantera Capital made, or proposed to make, direct or indirect investments in bitcoin or the Bitcoin ecosystem. In addition, in October 2015, the Congressional Research Service, at the request of one (1) or more Members, released a report detailing the background and regulatory landscape of Bitcoin.

### Retail Sector

The retail sector includes users transacting in direct peer-to-peer Bitcoin transactions through the direct sending of bitcoin over the Bitcoin Network. The retail sector also includes transactions between consumers paying for goods or services from commercial or service businesses through direct transactions or third-party service providers such as BitPay, Coinbase and GoCoin. BitPay, Coinbase and GoCoin each provide a merchant platform for instantaneous transactions whereby the consumer sends bitcoin to BitPay, Coinbase, or GoCoin, which then provides either the bitcoin or the cash value thereof to the commercial or service business utilizing the platform. PayPal, Square and Shopify are examples of traditional merchant payment processors or merchant platforms that have also added Bitcoin payment options for their merchant customers. Payment processing through the Bitcoin Network typically reduces the transaction cost for merchants, relative to the costs paid for credit card transaction processing. Consumers can now purchase goods or services through retail companies such as Overstock.com, DISH, Dell, Expedia, Microsoft, and Time, Inc.

### Service Sector

This sector includes companies that provide a variety of services including the buying, selling, payment processing and storing of bitcoin. Bitfinex, Bit-X and BTC-e are three (3) of the largest global U.S. Dollar-denominated Bitcoin Exchanges in the world based on Bitcoinity.org

as of May 3, 2016. Huobi and OKCoin are large Bitcoin Exchanges based in China that primarily feature trading of bitcoin for Chinese Yuan based on Bitcoin.org as of May 3, 2016. Coinbase and Circle are each multi-service financial institutions that provide digital wallets that store bitcoin for users and also serve as a retail gateway whereby users can purchase bitcoin for fiat currency. Coinbase, BitPay, BitPagos, and GoCoin are examples of Bitcoin payment processors that allow merchants to accept bitcoin as payment.

As the Bitcoin Network continues to grow in acceptance, it is anticipated that service providers will expand the currently available range of services and that additional parties will enter the service sector for the Bitcoin Network.

### **Competition**

Bitcoin is not the only Digital Asset founded on math-based algorithms and cryptographic security, although it is considered the most prominent. Approximately seven hundred (700) other Digital Assets or “altcoins” have been developed since the Bitcoin Network’s inception, including Litecoin, Ether and Ripple. The Bitcoin Network, however, possesses the “first-to-market” advantage and thus far has the largest market capitalization and is secured by a mining network with significantly more aggregate hashrate than the networks of any other Digital Assets.

### **Description of the Trust and the Shares**

According to the Registration Statement, the investment objective of the Trust is for the Shares to track the price of bitcoin as measured at 4:00 p.m. Eastern time using the Gemini Exchange Spot Price on each Business Day, less the Trust’s liabilities (which include accrued



but unpaid fees and expenses).<sup>32</sup> The Shares are designed for investors seeking a cost-effective and convenient means of gaining investment exposure to bitcoin similar to a direct investment in bitcoin. A substantial direct investment in bitcoin may require expensive and sometimes complicated arrangements in connection with the acquisition, security and safekeeping of the bitcoin and may involve the payment of substantial fees to acquire such bitcoin 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 bitcoin, they provide investors with an alternative that allows them to gain investment exposure to bitcoin. In addition, the Trust will provide its investors with other advantages including easy accessibility, relative cost efficiencies and minimal credit risk as the Trust will wholly-own all of its bitcoin assets, as discussed below. The Shares offer an investment that is:

- Easily Accessible and Relatively Cost Efficient. Investors in the Shares can also directly access bitcoin through the Bitcoin Exchange Market. The Sponsor believes that investors will be able to more effectively implement strategic and

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<sup>32</sup> According to the Registration Statement, the activities of the Trust will be limited to (1) issuing Baskets in exchange for the actual bitcoin deposited by the Authorized Participants with the Custodian as consideration, (2) transferring actual bitcoin as necessary to cover the Sponsor's Fee and as necessary to pay Trust expenses not assumed by the Sponsor and other liabilities, (3) transferring actual bitcoin in exchange for Baskets surrendered for redemption by the Authorized Participants, (4) causing the Administrator to sell bitcoin on the termination of the Trust, and (5) engaging in all administrative and custodial procedures necessary to accomplish such activities in accordance with the provisions of the Trust Agreement, the Trust Servicing Agreement, the Trust Agency Service Provider Agreement, the Custody Agreement, the License Agreement and Authorized Participant Agreements. The Trust will not be 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 prices of bitcoin. The Trust seeks to achieve its investment objective by directly owning bitcoin and will not speculate with regard to short-term changes in bitcoin prices. The Trust will not invest in bitcoin derivatives, futures, swaps, or other financial instruments that represent bitcoin or that may be exchanged for bitcoin. The Trust does not expect to make any cash distributions to shareholders.

tactical asset allocation strategies that use bitcoin by using the Shares instead of directly purchasing and holding bitcoin, and for many investors, transaction costs related to the Shares will be lower than those associated with the direct purchase, storage and safekeeping of bitcoin.

- Exchange-Traded and Transparent. The Shares will be listed and trade on BZX, providing investors with an efficient means to implement various investment strategies. Upon effectiveness of the registration statement of which this prospectus is a part, the Shares will be eligible for margin accounts and will be backed by the assets of the Trust. The Trust will not hold or employ any derivative securities. The value of the Trust's holdings will be reported each day on the Trust's website. Furthermore, the fact that the Trust will be regulated by the Exchange and by the Commission under the Act provides a level of oversight not provided by any other current Bitcoin Exchanges or service providers. The Sponsor represents that the Trust will enter into an information sharing agreement with the Gemini Exchange enabling it to obtain and publish the Gemini Exchange Spot Price on the Trust's website. In addition, the Sponsor will arrange for the Gemini Exchange to share data regarding the Gemini Exchange Spot Price and other trading data with the Exchange. See "Overview of the Bitcoin Industry and Market--Bitcoin Value—Gemini Exchange Spot Price" above. Lastly, the Exchange has the ability to halt trading and delist the Shares of the Trust under certain circumstances and, more generally, retains broad discretionary authority over the continued listing of securities on the Exchange, as further described below.

- Proprietary Cold Storage System. The Custodian has been appointed to store and safekeep the Trust's bitcoin using a state-of-the-art, proprietary Cold Storage System. Similar hardware, software, administration and continued technological development may not be available or cost-efficient for many investors. Winklevoss IP, LLC ("WIP") is the owner of certain intellectual property and it has licensed such intellectual property to the Sponsor for use by the Custodian and its service providers in the safekeeping of the Trust's bitcoin.

Using the precious metals exchange-traded trusts currently trading on U.S. exchanges<sup>33</sup> as design paradigms, the Sponsor has structured the Trust to be a similar passive investment vehicle holding a single asset. Like the precious metals exchange traded trusts cited above, the Trust will only own and store bitcoin and will not be permitted to hold cash or any other Digital Asset.

The Custodian has been appointed to store and safekeep the Trust's bitcoin using a state-of-the-art, proprietary Cold Storage System.<sup>34</sup> Similar hardware, software, administration and

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<sup>33</sup> See, e.g., SPDR Gold Trust: See Securities Exchange Act Release No. 50603 (October 28, 2004), 69 FR 64614 (November 5, 2004) (SR-NYSE-2004-22) (approving listing of the SPDR Gold Trust); iShares Gold Trust: See Securities Exchange Act Release No. 51058 (January 19, 2005), 70 FR 3749 (January 26, 2005) (SR-Amex-2004-38) (approving listing of the iShares Gold Trust); ETFs Gold Trust: See Securities Exchange Act Release No. 59895 (May 8, 2009), 74 FR 22993 (May 15, 2009) (SR-NYSEArca-2009-40) (approving listing of the ETFs Gold Trust); ETFs Silver Trust: See Securities Exchange Act Release No. 59781 (April 17, 2009), 74 FR 18771 (April 24, 2009) (SR-NYSEArca-2009-95) (approving listing of the ETFs Silver Trust); ETFs Platinum Trust: See Securities Exchange Act Release No. 61219 (December 22, 2009), 74 FR 68886 (December 29, 2009) (SR-NYSEArca-2009-94) (approving listing of the ETFs Platinum Trust); and ETFs Palladium Trust: See Securities Exchange Act Release No. 61220 (December 22, 2009), 74 FR 68895 (December 29, 2009) (SR-NYSEArca-2009-94) (approving listing of the ETFs Palladium Trust).

<sup>34</sup> WIP is the owner of certain intellectual property and it has licensed such intellectual property to the Sponsor for use by the Custodian and its service providers in the safekeeping of the Trust's bitcoin. The Sponsor believes that the use of this Cold Storage

continued technological development may not be available or cost-efficient for many investors. As such, the logistics of accepting, transferring and safekeeping of actual bitcoin are dealt with by the Custodian using the Cold Storage System, and the related expenses are built into the price of the Shares. Therefore, the investor does not have any additional tasks or costs over and above those associated with dealing in any other publicly traded security. The Shares are intended to provide investors with a cost-efficient and convenient means of gaining exposure to bitcoin similar to a direct investment in bitcoin.

All bitcoin is recorded on the Blockchain, the decentralized transaction ledger of the Bitcoin Network. The Blockchain is a canonical record of every bitcoin, every Bitcoin transaction (including the mining of new bitcoin) and every Bitcoin address associated with a quantity of bitcoin. In order to transfer or “spend” bitcoin, one must control the private key that is mathematically associated with a given Bitcoin address. The private keys that control the Trust’s bitcoin are secured by the Custodian and stored completely offline (i.e., air-gapped) using the Custodian’s state-of-the-art, proprietary Cold Storage System. The Custodian’s Cold Storage System is founded on the principles of (i) building defense-in-depth against external threats; (ii) protecting against human error; and (iii) guarding against misuse of insider access.

In order to accomplish these principles, the Custodian’s Cold Storage System generates, stores and manages the private keys that control the Trust’s bitcoin onboard hardware security modules (“HSMs”) for the lifetime of each private key. HSMs (each, a “Signer”) are tamper-resistant computers used by the Custodian to digitally sign (i.e., authenticate) any transfer of the Trust’s bitcoin. All Signers are stored, as well as backed up, in various geographically

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System and other security features described below, the technological experience of the Custodian’s employees and the Sponsor’s management team, as well as the use of independent auditors for periodic reviews, will provide a level of security not available through other Digital Asset custodians.

distributed, access-controlled facilities throughout the United States. In addition, the Custodian's Cold Storage System utilizes multiple-signature ("Multisig") technology with an "M-of-N" signing design that requires a signature from more than one (1) Signer (but fewer than the full complement of potential Signers) in order to move the Trust's bitcoin. This provides both security against attacks and tolerance to losing access to a minority of facilities or private keys, thereby eliminating single points of failure. In addition, the operation of a Signer requires the coordinated actions of multiple employees (each a "Signatory") to protect against insider malfeasance. Lastly, the Cold Storage System is comprised of hardware that is sourced from multiple, diverse manufacturers to guard against supply-chain risks.

The Custodian's Cold Storage System was purpose-built to demonstrate "proof of control" of the private keys associated with its public Bitcoin addresses. More specifically, the Custodian can use Signers to sign a specific message chosen by the Custodian that references a current event (i.e., to prove recency), thereby proving control of the private keys associated with the public Bitcoin addresses in which the Trust's bitcoin are held. This allows the Custodian to evidence control of the Trust's assets periodically during audits on-demand and without necessitating the transfer of any of the Trust's bitcoin.

The Custodian has evaluated different insurance policy options and determined not to obtain coverage at this time due to insurers' lack of understanding and sophistication with respect to Digital Assets, which has led to a thin marketplace of policies that are (i) not priced in an actuarially-fair manner and (ii) don't properly model relevant loss vectors. Unfortunately, an efficient and effective marketplace for bitcoin insurance has not yet developed.

The Custodian is the custodian of the Trust's bitcoin in accordance with the terms and provisions of the Trust Custody Agreement and utilizes its Cold Storage System in the

administration and operation of the Trust and the safekeeping of its bitcoin. The Custodian segregates the Trust's bitcoin which are held in unique Bitcoin addresses with balances that can be directly verified on the Bitcoin Blockchain. Under the Trust Custody Agreement, the Custodian is also responsible for the maintenance of, and periodic updates to, the Cold Storage System.

Acting on standing instructions specified in the Trust Custody Agreement, the Custodian will accept, on behalf of the Trust, delivery of bitcoin from Authorized Participants into the Trust Custody Account in the creation of a Basket. In order for an Authorized Participant to redeem a Basket and receive a distribution of bitcoin from the Trust, the Custodian, upon receiving instructions from the Administrator, will sign transactions necessary to transfer bitcoin out of the Trust Custody Account and distribute to the Bitcoin address specified by the Authorized Participant. See "Net Asset Value--Creation and Redemption of Shares."

The Sponsor has adopted several control procedures in addition to the safety features integral to the Cold Storage System's design. For example, the Sponsor must engage an independent audit firm to periodically audit the Custodian's Cold Storage System protocols and internal controls ("Internal Controls Audit"), and report to the Sponsor at least annually on such matters. Additionally, the Sponsor must engage an independent audit firm to biannually verify that the Custodian can demonstrate "proof of control" of the private keys that control the Trust's bitcoin ("Proof of Control Audit"). One Proof of Control Audit will be conducted at the end of each calendar year and the other at random.

## **Net Asset Value**

According to the Registration Statement, on each Business Day, the Administrator will use the Gemini Exchange Spot Price as measured at 4:00 p.m. Eastern time (the “Evaluation Time”) to calculate the Trust’s NAV.

At the Evaluation Time, the Administrator will value the bitcoin held by the Trust using the Gemini Exchange Spot Price or such other publicly available price as the Sponsor in good faith may deem fairly represents the fair market value of the Trust’s bitcoin. In the event that the Sponsor determines that the Gemini Exchange Spot Price is not an appropriate basis for evaluation of the Trust’s bitcoin, the Sponsor will instruct the Administrator to use the spot price of the itBit bitcoin exchange (the “itBit Exchange”) as an alternative basis for calculating the Trust’s NAV. The itBit Exchange is operated by the itBit Trust Company, LLC, a New York State-chartered limited liability trust company that, like the Gemini Exchange, operates under the direct supervision and regulatory oversight of the NYSDFS. Any determination that the Gemini Exchange Spot Price is unavailable or otherwise not an appropriate basis for calculating the Trust’s NAV would be based upon extraordinary criteria in which the operation of Gemini Exchange is disrupted or otherwise experiencing material calculation or reporting irregularities. If the Sponsor determines in good faith that neither the Gemini Exchange Spot Price nor the spot price on the itBit Exchange is reliable for calculating the Trust’s NAV on a particular Business Day, including but not limited to situations where it does not reflect material events occurring between the time of calculation of such Gemini Exchange Spot Price or the spot price on the itBit Exchange and the time the Trust’s Shares are valued, bitcoin will be valued using fair market value pricing as determined in good faith by the Sponsor and calculated by the Administrator under procedures established in the Trust Servicing Agreement. Determining the

fair market value of bitcoin involves the consideration of a number of subjective factors and thus the prices for bitcoin may differ from the Gemini Exchange Spot Price or the spot price on the itBit Exchange. The Sponsor may consider the market price for bitcoin on other Bitcoin Exchanges, or in other forums for which bitcoin prices are published publicly. Neither the Administrator nor the Sponsor shall be liable to any person for the determination that the Gemini Exchange Spot Price or an alternative basis for a fair market value of bitcoin is not appropriate as a basis for calculation of the Trust's NAV provided that such determination is made in good faith.

In order to calculate the Trust's NAV, the Administrator will first determine the value of the Trust's bitcoin and then subtract all of the Trust's liabilities (including accrued but unpaid fees and expenses) to determine the Trust's net assets. The Administrator will calculate the Trust's NAV by dividing the net assets of the Trust by the number of the Shares outstanding as of the close of trading on the Exchange (which includes the net number of any of the Shares created or redeemed on such Business Day).

The Sponsor will publish the Trust's NAV on the Trust's website as soon as practicable after determination by the Administrator. To the extent that the NAV has been calculated using a price per bitcoin other than the Gemini Exchange Spot Price for such Business Day, the publication on the Trust's website will note the valuation methodology and the price per bitcoin resulting from such calculation.

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

The Trust is expected to issue and redeem Shares from time to time only in one or more whole Baskets. The Trust will issue and redeem the Shares in Baskets only to certain Authorized Participants on an ongoing basis. On a creation, Baskets will be distributed to the Authorized



Participants by the Trust in exchange for the delivery to the Trust of the appropriate number of bitcoin (i.e., bitcoin equal in value to the value of the Shares being purchased). On a redemption, the Trust will distribute bitcoin equal in value to the value of the Shares being redeemed to the redeeming Authorized Participant in exchange for the delivery to the Trust of one or more Baskets. On each Business Day, the value of each Basket accepted by the Administrator in a creation or redemption transaction will be the same (i.e., each Basket will consist of 50,000 Shares and the value of the Basket will be equal to the value of 50,000 Shares at their net asset value per Share on that day). The Trust will not issue or redeem fractions of a Basket.

Only Authorized Participants will be able to place orders to create or redeem Baskets. Authorized Participants must be (i) registered broker-dealers or other securities market participants, such as banks and other financial institutions, which are not required to register as broker-dealers to engage in securities transactions, and (ii) DTC Participants. A Transaction Fee may be imposed to offset the transfer and other transaction costs associated with creation or redemption. Authorized Participants or their affiliated market makers are expected to have the facility to participate directly on one or more Bitcoin Exchanges.

The Trust currently expects that prior to the commencement of trading on the Exchange, at least two Authorized Participants will have signed an Authorized Participant Agreement with the Trust and may create and redeem Baskets as described above. Persons interested in placing orders to create or redeem Baskets should contact the Sponsor or the Administrator to obtain the contact information for the Authorized Participants. Shareholders who are not Authorized Participants will only be able to redeem their Shares through an Authorized Participant.

Bitcoin will be (i) delivered to the Trust Custody Account from an Authorized Participant in connection with the creation of one or more Baskets and (ii) distributed by the Custodian from

the Trust Custody Account to the Authorized Participant in connection with the redemption of one or more Baskets.

Under the Authorized Participant Agreement, the Sponsor has agreed to indemnify the Authorized Participants against certain liabilities, including liabilities under the Securities Act.

The following description of the procedures for the creation and redemption of Baskets is only a summary and an investor should refer to the relevant provisions of the Trust Agreement, the Trust Servicing Agreement and the form of Authorized Participant Agreement for more detail, each of which is attached as an exhibit to the Registration Statement of which the prospectus is a part.

### **Creation Procedures**

On any Business Day, an Authorized Participant may place an order with the Administrator to create one or more Baskets (each a “Creation Basket”). The settlement of Creation Basket orders, including the delivery of bitcoin by the Authorized Participant and distribution of Shares to the Authorized Participant, will occur only on days BZX is open for regular trading.

### **Creation Basket Order Requirements**

The number of bitcoin required to be delivered to the Trust in exchange for a Creation Basket is determined by the Trust Agreement. All questions as to the amount of bitcoin necessary to deliver to purchase a Creation Basket will be conclusively determined by the Administrator. The Administrator’s determination of the cost of a Creation Basket shall be final and binding on all persons interested in the Trust.

### Creation Basket Distribution

An Authorized Participant who places a Creation Basket order with the Administrator is responsible for delivering the bitcoin to the Trust required to purchase the Creation Basket on the order date. Bitcoin delivered by an Authorized Participant will be considered settled upon the completion of the Confirmation Protocol. Under the Confirmation Protocol, the Custodian must wait until the bitcoin delivery transaction has been confirmed by six (6) consecutive blocks on the Blockchain before it is considered settled. The confirmation process should take approximately one (1) hour depending upon the speed with which Bitcoin Network miners add new blocks to the Blockchain. See “Overview of the Bitcoin Industry and Market—Cryptographic Security Used in the Bitcoin Network—Double-Spending and the Bitcoin Network Confirmation System,” above. An Authorized Participant shall not be deemed to have fulfilled its bitcoin delivery requirement until the completion of the Confirmation Protocol.

Following confirmation of the receipt of bitcoin into the Trust Custody Account by the Custodian, the Administrator will direct DTC to credit the Authorized Participant’s DTC account with the Shares representing the number of Creation Baskets purchased. The expense and risk of delivery, ownership and safekeeping of a bitcoin delivery until it has been received by the Trust in the Trust Custody Account shall be borne solely by the Authorized Participant.

The Custodian may accept delivery of bitcoin by such other means as the Sponsor, from time to time, may determine to be acceptable for the Trust, provided that the same is disclosed in a prospectus relating to the Trust filed with the Commission pursuant to Rule 424 under the Securities Act. If bitcoin is to be delivered other than as described above, the Sponsor is authorized to establish such procedures and to appoint such custodians and establish such

custody accounts in addition to those described in this prospectus, as the Sponsor determines to be desirable.

#### Suspension or Rejection of Creation Basket Orders

The Administrator may, in its discretion, and when directed by the Sponsor, suspend the right to place Creation Basket orders, or postpone the Creation Basket settlement date, (i) for any period during which BZX is closed other than customary weekend or holiday closings, or trading on BZX is suspended or restricted or (ii) for any period during which an emergency exists as a result of which receipt or evaluation of bitcoin delivery is not reasonably practicable or presents, in the judgment of the Administrator, the Custodian or the Sponsor or their agents, a security risk to the Cold Storage System. The inability of the Custodian to operate the Cold Storage System because of a failure of hardware, software or personnel or an inability to access the Cold Storage System (e.g., because of power failure or acts of God) are examples of such emergencies. None of the Administrator, the Custodian, the Sponsor or their agents will be liable to any person or in any way for any loss or damages that may result from any such suspension or postponement.

The Administrator may also reject a Creation Basket order if (i) such order is not presented in proper form as described in the Authorized Participant Agreements, (ii) such order is incorrect, (iii) if the Creation Basket Order presents, in the opinion of the Administrator, the Custodian, the Sponsor, or their agents, a security risk to the Cold Storage System, or (iv) the fulfillment of the Creation Basket order, in the opinion of counsel, might be unlawful. None of the Trustee, Administrator, Trust Agency Service Provider, Custodian, Sponsor, or their agents, will be liable for the rejection of any Creation Basket order.

## **Redemption Procedures**

The procedures by which an Authorized Participant can redeem one or more Baskets (each a “Redemption Basket”) will mirror the procedures for the creation of Baskets. On any Business Day, an Authorized Participant may place a Redemption Basket order with the Administrator. The settlement of Redemption Baskets orders, including the delivery of Shares to the Trust and distribution of bitcoin to the Authorized Participant, will only occur when BZX is open for regular trading. Settlement of Redemption Baskets orders may be delayed longer than three (3), but no more than five (5), Business Days following the Redemption Basket order date. Settlement of Redemption Baskets may be delayed only in the instance of administrative or custodial delays in the processing of a distribution of bitcoin from the Trust Custody Account, whether by reason of Bitcoin Network delays, mechanical or clerical error or by act of God. Settlement of a Redemption Basket will occur only on Business Days. Redemption Basket orders must be placed no later than 4:00 p.m. Eastern time on a Business Day. A Redemption Basket order so received will be effective on the date it is received if the Administrator finds it to be in satisfactory form. The redemption procedures allow only Authorized Participants to place Redemption Basket orders and do not entitle an Authorized Participant to receive a distribution of bitcoin in an amount that is different than the value of a Redemption Basket.

By placing a Redemption Basket order, an Authorized Participant agrees to deliver the number of Shares in the Redemption Basket through DTC’s book-entry system to the Administrator’s DTC account not later than the third Business Day following the effective date of the Redemption Basket order.

### Redemption Basket Order Requirements

The Redemption Basket distribution from the Trust will consist of a transfer to the redeeming Authorized Participant of the number of the bitcoin held by the Trust in the Trust Custody Account evidenced by the Shares being delivered. Redemption distributions will be subject to the deduction of any applicable taxes or other governmental charges that may be due.

### Redemption Basket Distribution

The distribution of bitcoin representing a Redemption Basket will be transferred to the Authorized Participant on the third Business Day following the Redemption Basket order date if, by 9:00 a.m. Eastern time on such third Business Day, the Administrator's DTC account has been credited with the Redemption Baskets to be redeemed. Subsequently, the Administrator will instruct the Custodian to transfer bitcoin from the Trust Custody Account and distribute it to the redeeming Authorized Participant. If the Administrator's DTC account has not been credited with all of the Shares representative of the Redemption Baskets to be redeemed by such time, the delivery will be considered unfulfilled. The Administrator is also authorized to instruct the Custodian to transfer to the Authorized Participant the distribution of bitcoin resulting from the Redemption Basket order, notwithstanding that the Redemption Baskets to be redeemed are not credited to the Administrator's DTC account by 9:00 a.m. Eastern time on the third Business Day following the Redemption Basket order date, if the Authorized Participant has collateralized its obligation to deliver the Redemption Baskets through DTC's book-entry system on such terms as the Sponsor and the Administrator may from time to time agree upon.

In order to facilitate the distribution of the bitcoin representing a Redemption Basket order, the Administrator will calculate the number of bitcoin representing the value of the

Redemption Basket order and instruct the Custodian to distribute that amount of bitcoin to the redeeming Authorized Participant.

#### Suspension or Rejection of Redemption Basket Orders

The Administrator may, in its discretion, and will, when directed by the Sponsor, suspend the right to place Redemption Basket orders, or postpone the Redemption Basket order settlement date, (i) for any period during which BZX is closed other than customary weekend or holiday closings, or trading on BZX is suspended or restricted or (ii) for any period during which an emergency exists as a result of which the distribution or evaluation of bitcoin is not reasonably practicable or presents, in the judgment of Administrator, the Custodian, the Sponsor or their agents, a security risk to the Cold Storage System. The inability of the Custodian to operate the Cold Storage System because of a failure of hardware, software or personnel or an inability to access the Cold Storage System (e.g., because of power failure or acts of God) are examples of such emergencies. None of the Administrator, the Custodian, the Sponsor or their agents will be liable to any person or in any way for any loss or damages that may result from any such suspension or postponement.

The Administrator will also reject a Redemption Basket order if the order is not in proper form as described in the Authorized Participant Agreement or if the fulfillment of the Redemption Basket order, in the opinion of its counsel, might be unlawful.

#### **Availability of Information**

The Trust's website, which will be publicly available prior to the public offering of the Shares, will include a form of the prospectus for the Trust that may be downloaded. The website will include additional quantitative information updated on a daily basis, including, for the Trust: (i) the prior Business Day's reported NAV, the highest quoted bid price for the Shares (the "Best

Bid”) and lowest quoted offer price for the Shares (the “Best Ask”), the mid-point of the spread between the Best Bid and the Best Ask at the time of the NAV calculation(the “Best Bid/Best Ask”),<sup>35</sup> the daily trading volume of the Shares, and the calculation of the premium and discount of the Best Bid/Best Ask against the NAV; and (ii) data in chart format displaying the frequency distribution of discounts and premiums of the daily Best Bid/Best Ask against the NAV, within appropriate ranges, for each of the four (4) previous calendar quarters. Daily trading volume information for the Shares will also be available in the financial section of newspapers, through subscription services such as Bloomberg, Thomson Reuters and International Data Corporation, which can be accessed by Authorized Participants and other investors, as well as through other electronic services, including major public websites.

In addition, the Sponsor will calculate an estimated fair value of the Shares based on the most recent Gemini Exchange Spot Price (the “Intraday Indicative Value”), which will be updated and widely disseminated by one or more major market data vendors at least every fifteen (15) seconds during the Exchange’s regular trading hours.<sup>36</sup> The dissemination of the Intraday Indicative Value will provide investors with an estimate of the fair value of the Shares throughout the trading day.

Investors may obtain bitcoin pricing information twenty-four (24) hours a day or from various financial information service providers or Bitcoin Network information sites such as BitcoinCharts.com or bitcoinity.org. Bloomberg financial terminals include pricing data in USD

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<sup>35</sup> The Best Bid/Best Ask of the Shares will be determined using the midpoint of the spread between the Best Bid and the Best Ask on the Exchange at the time of the NAV calculation. The records relating to Best Bid/Best Ask will be retained by the Trust and its service providers.

<sup>36</sup> Currently, it is the Exchange’s understanding that several major market data vendors display and/or make widely available Intraday Indicative Values published via the Consolidated Tape Association (“CTA”) or other data feeds.



and in Euro from several Bitcoin Exchanges. Recently, the CME and the ICE announced bitcoin pricing indices. Current Bitcoin market prices are also generally available with bid/ask spreads directly from Bitcoin Exchanges. In addition, on each Business Day, the Trust's website will provide pricing information for the Gemini Exchange Spot Price and the Shares. The Gemini Exchange itself provides comprehensive last trade information as well as the aggregate quantity available at each price level within its limit order book, all through its public website ([www.gemini.com](http://www.gemini.com)) and public market data feeds.

Additional information regarding the Trust and its Shares, including risks, creation and redemption procedures, fees, distributions and taxes, is included in the Registration Statement.

### **Arbitrage Mechanism**

Similar to other ETPs listed and traded on the Exchange, the Trust will rely on the Basket creation and redemption process to reduce any premium or discount that may occur in the Share trading prices on the Exchange relative to the NAV. Baskets may be created or redeemed only by Authorized Participants who have entered into an Authorized Participant Agreement with the Trust and the Sponsor. The Basket creation and redemption process is important for the Trust in providing Authorized Participants with an arbitrage mechanism through which they may keep Share trading prices in line with the NAV. See "Overview of the Bitcoin Industry and Market—Bitcoin Value—Gemini Exchange Spot Price" above.

As the Shares trade intraday on the Exchange, their market prices will fluctuate due to supply and demand, which will be driven in large part by the price of bitcoin. The following examples generally describe the conditions surrounding Basket creation and redemption:

- If the market price of the Shares is greater than the NAV, an Authorized Participant can purchase sufficient bitcoin to create a Basket, and then sell the

new Shares on the secondary market at a profit. This process increases the selling interest of the Shares and is expected to decrease the market price of the Shares such that their market price will be closer to the NAV.

- If the NAV is greater than the market price of the Shares, an Authorized Participant can purchase Shares on the secondary market in an amount equal to a Basket and redeem them for bitcoin, and then sell the bitcoin at a profit. This process increases the buying interest for the Shares and is expected to increase the market price of the Shares such that their market price will be closer to the NAV.

This process is referred to as the arbitrage mechanism (“Arbitrage Mechanism”). The Arbitrage Mechanism helps to minimize the difference between the trading price of a Share and the NAV. Over time, these buying and selling pressures should balance, and a Share’s market trading price is expected to remain at a level that is at or close to the NAV. The Arbitrage Mechanism provided by the Basket creation and redemption process is designed, and required, in order to maintain the relationship between the market trading price of the Shares and the NAV. The Exchange expects that arbitrageurs will take advantage of price variations between the Shares’ market price and the NAV and that the Arbitrage Mechanism will be facilitated by the transparency and simplicity of the Trust’s holdings, the availability of the Intraday Indicative Value, the liquidity of the bitcoin market, each Authorized Participant’s ability to access the bitcoin market, and each Authorized Participant’s ability to create workable hedges.

#### **Rule 14.11(e)(4) – Commodity-Based Trust Shares**

The Shares will be subject to BZX Rule 14.11(e)(4), which sets forth the initial and continued listing criteria applicable to Commodity-Based Trust Shares. The Exchange will obtain a representation that the Trust’s NAV will be calculated daily and that these values and

information about the assets of the Trust will be made available to all market participants at the same time. The Exchange notes that, as defined in Rule 14.11(e)(4)(C)(i), the Shares will be: (a) issued by a trust that holds a specified commodity<sup>37</sup> deposited with the trust; (b) issued by such trust in a specified aggregate minimum number in return for a deposit of a quantity of the underlying commodity; and (c) when aggregated in the same specified minimum number, may be redeemed at a holder's request by such trust which will deliver to the redeeming holder the quantity of the underlying commodity. The Trust currently expects that there will be at least 100,000 Shares outstanding at the time of commencement of trading on the Exchange. Upon termination of the Trust, the Shares will be removed from listing. The Trustee, Delaware Trust Company, is a trust company having substantial capital and surplus and the experience and facilities for handling corporate trust business, as required under Rule 14.11(e)(4)(E)(iv)(a) and that no change will be made to the trustee without prior notice to and approval of the Exchange. The Exchange also notes that, pursuant to Rule 14.11(e)(4)(F), neither the Exchange nor any agent of the Exchange shall have any liability for damages, claims, losses or expenses caused by any errors, omissions or delays in calculating or disseminating any underlying commodity value, the current value of the underlying commodity required to be deposited to the Trust in connection with issuance of Commodity-Based Trust Shares; resulting from any negligent act or omission by the Exchange, or any agent of the Exchange, or any act, condition or cause beyond the reasonable control of the Exchange, its agent, including, but not limited to, an act of God; fire; flood; extraordinary weather conditions; war; insurrection; riot; strike; accident; action of government; communications or power failure; equipment or software malfunction; or any error,

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<sup>37</sup> For purposes of Rule 14.11(e)(4), the term commodity takes on the definition of the term as provided in the Commodity Exchange Act. As noted above, the CFTC has opined that Bitcoin is a commodity as defined in Section 1a(9) of the Commodity Exchange Act. See Coinflip, supra note 13.

omission or delay in the reports of transactions in an underlying commodity. Finally, as required in Rule 14.11(e)(4)(G), the Exchange notes that any registered market maker (“Market Maker”) in the Shares must file with the Exchange in a manner prescribed by the Exchange and keep current a list identifying all accounts for trading in an underlying commodity, related commodity futures or options on commodity futures, or any other related commodity derivatives, which the registered Market Maker may have or over which it may exercise investment discretion. No registered Market Maker shall trade in an underlying commodity, related commodity futures or options on commodity futures, or any other related commodity derivatives, in an account in which a registered Market Maker, directly or indirectly, controls trading activities, or has a direct interest in the profits or losses thereof, which has not been reported to the Exchange as required by this Rule. In addition to the existing obligations under Exchange rules regarding the production of books and records (see, e.g., Rule 4.2), the registered Market Maker in Commodity-Based Trust Shares shall make available to the Exchange such books, records or other information pertaining to transactions by such entity or registered or non-registered employee affiliated with such entity for its or their own accounts for trading the underlying physical commodity, related commodity futures or options on commodity futures, or any other related commodity derivatives, as may be requested by the Exchange.

### **Trading Halts**

With respect to trading halts, the Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. The Exchange will halt trading in the Shares under the conditions specified in BZX Rule 11.18. Trading 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 trading is not occurring in the bitcoin

underlying the Shares; or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. Trading in the Shares also will be subject to Rule 14.11(e)(4)(E)(ii), which sets forth circumstances under which trading in the Shares may be halted.

### **Trading Rules**

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. BZX will allow trading in the Shares from 8:00 a.m. until 5:00 p.m. Eastern Time. The Exchange has appropriate rules to facilitate transactions in the Shares during all trading sessions. As provided in BZX Rule 11.11(a) the minimum price variation for quoting and entry of orders in securities traded on the Exchange is \$0.01 where the price is greater than \$1.00 per share or \$0.0001 where the price is less than \$1.00 per share.

### **Surveillance**

The Exchange believes that its surveillance procedures are adequate to properly monitor the trading of the Shares on the Exchange during all trading sessions and to deter and detect violations of Exchange rules and the applicable federal securities laws. Trading of the Shares through the Exchange will be subject to the Exchange's surveillance procedures for derivative products, including Commodity-Based Trust Shares. The issuer has represented to the Exchange that it will advise the Exchange of any failure by the Trust or the Shares to comply with the continued listing requirements, and, pursuant to its obligations under Section 19(g)(1) of the Exchange Act, the Exchange will surveil for compliance with the continued listing requirements. If the Trust or the Shares are not in compliance with the applicable listing requirements, the Exchange will commence delisting procedures under Exchange Rule 14.12. The Exchange may

obtain information regarding trading in the Shares via the Intermarket Surveillance Group (“ISG”), from other exchanges who are members or affiliates of the ISG, or with which the Exchange has entered into a comprehensive surveillance sharing agreement.<sup>38</sup> In addition, the Exchange may obtain information about bitcoin transactions, trades and market data from Bitcoin Exchanges with which the Exchange has entered into a comprehensive surveillance sharing agreement as well as certain additional information that is publicly available through the Blockchain. The Exchange notes that it has entered into a comprehensive surveillance sharing agreement with Gemini Exchange.

### **Information Circular**

Prior to the commencement of trading, the Exchange will inform its members in an Information Circular of the special characteristics and risks associated with trading the Shares. Specifically, the Information Circular will discuss the following: (i) the procedures for the creation and redemption of Baskets (and that the Shares are not individually redeemable); (ii) BZX Rule 3.7, which imposes suitability obligations on Exchange members with respect to recommending transactions in the Shares to customers; (iii) how information regarding the Intraday Indicative Value and the Trust’s NAV are disseminated; (iv) the risks involved in trading the Shares during the Pre-Opening<sup>39</sup> and After Hours Trading Sessions<sup>40</sup> when an updated Intraday Indicative Value will not be calculated or publicly disseminated; (v) the requirement that members deliver a prospectus to investors purchasing newly issued Shares prior to or concurrently with the confirmation of a transaction; and (vi) trading information.

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<sup>38</sup> For a list of the current members and affiliate members of ISG, see [www.isgportal.com](http://www.isgportal.com).

<sup>39</sup> The Pre-Opening Session is from 8:00 a.m. to 9:30 a.m. Eastern Time.

<sup>40</sup> The After Hours Trading Session is from 4:00 p.m. to 5:00 p.m. Eastern Time.

In addition, the Information Circular will advise members, prior to the commencement of trading, of the prospectus delivery requirements applicable to the Shares. Members purchasing the Shares for resale to investors will deliver a prospectus to such investors. The Information Circular will also discuss any exemptive, no-action and interpretive relief granted by the Commission from any rules under the Act.

In addition, the Information Circular will reference that the Trust is subject to various fees and expenses described in the Registration Statement. The Information Circular will also reference the fact that, apart from the CFTC, the Financial Crimes Enforcement Network of the U.S. Department of the Treasury (“FinCEN”) and the US Internal Revenue Service (“IRS”), most major U.S. regulators, including the Commission, have yet to make official pronouncements or adopt rules providing guidance with respect to the classification and treatment of bitcoin and other Digital Assets for purposes of commodities, tax and securities laws. The Information Circular will also contain information regarding the CFTC’s determination that bitcoin and other “virtual currencies” (aka Digital Assets) are properly defined as commodities under the CEA,<sup>41</sup> and will reference the fact that the CFTC has applied CEA provisions and CFTC regulations that apply to transactions in commodity options and swaps to the conduct of the bitcoin derivatives trading platform.

## 2. Statutory Basis

The Exchange believes that the proposal is consistent with Section 6(b) of the Act<sup>42</sup> in general and Section 6(b)(5) of the Act<sup>43</sup> in particular in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster

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<sup>41</sup> See Coinflip, *supra* note 13.

<sup>42</sup> 15 U.S.C. 78f.

<sup>43</sup> 15 U.S.C. 78f(b)(5).

cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system 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 Exchange Rule 14.11(e)(4), which as noted above includes all statements and representations made in this filing regarding the description of the portfolio and limitations on portfolio holdings or reference assets. The Exchange believes that its surveillance procedures are adequate to properly monitor the trading of the Shares on the Exchange during all trading sessions and to deter and detect violations of Exchange rules and the applicable federal securities laws. The Exchange may obtain information regarding trading in the Shares via the ISG from other exchanges who are members or affiliates of the ISG, or with which the Exchange has entered into a comprehensive surveillance sharing agreement.<sup>44</sup> In addition, the Exchange may obtain information about Bitcoin transactions, trades, and market data from Bitcoin Exchanges with which the Exchange has entered into a comprehensive surveillance sharing agreement, which includes the Gemini Exchange, as well as certain additional information that is publicly available through the Blockchain.

According to the Registration Statement, the Trust will only own and store bitcoin and will not be permitted to hold cash or any other Digital Asset. The proposal also promotes market transparency in that large amount of information is publicly available regarding the Trust and the Shares, thereby promoting market transparency. The Exchange will obtain a representation from the Sponsor that the Trust's NAV will be determined by the Administrator and published by the

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<sup>44</sup> For a list of the current members and affiliate members of ISG, see [www.isgportal.com](http://www.isgportal.com).



Sponsor at 4:00 p.m. Eastern time each Business Day (using the 4:00 p.m. Eastern time Gemini Exchange Spot Price) on the Trust's website and that such information will be made available to all market participants at the same time. Furthermore, the Trust's website will provide an Intraday Indicative Value during regular trading hours on each Business Day. The Trust's website will also provide its current prospectus, as well as the two (2) most recent reports to shareholders. The website will include additional quantitative information updated on a daily basis, including, for the Trust: (i) the prior Business Day's reported NAV, the Best Bid, the Best Ask, the Best Bid/Best Ask, the daily trading volume of the Shares, and the calculation of the premium and discount of the Best Bid/Best Ask against the NAV; and (ii) data in chart format displaying the frequency distribution of discounts and premiums of the daily Best Bid/Best Ask against the NAV, within appropriate ranges, for each of the four (4) previous calendar quarters. In addition, the Exchange will publish (via the CTA) quotation information, trading volume, closing prices and the prior Business Day's NAV. The Intraday Indicative Value and the intraday Gemini Exchange Spot Price will be widely disseminated by one (1) or more major market data vendors, such as Reuters or Bloomberg, and broadly displayed on at least a 15-second delayed basis during regular trading hours. In addition, information regarding market price and trading volume of the Shares will be continually available on a real-time basis throughout the Business Day on brokers' computer screens and other electronic services, and quotation and last sale information will also be available via the Exchange's data feeds.

The proposed rule change is further designed to promote just and equitable principles of trade and to protect investors and the public interest and to promote market transparency in that there is a considerable amount of bitcoin price and market information available for free on public websites and through financial, professional and subscription services. Investors may

obtain bitcoin pricing information twenty-four (24) hours a day or from various financial information service providers or Bitcoin Network information sites such as [www.BitcoinCharts.com](http://www.BitcoinCharts.com) or [www.bitcoinity.org](http://www.bitcoinity.org). Bloomberg financial terminals include pricing data in USD and in Euro from several Bitcoin Exchanges. Recently, the CME and the ICE announced bitcoin pricing indices. Current Bitcoin market prices are also generally available with bid/ask spreads directly from various Bitcoin Exchanges.

The Exchange also believes that the widespread availability of information regarding bitcoin, the Trust, and the Shares, combined with the ability of Authorized Participants to create and redeem Baskets each Business Day, thereby utilizing the Arbitrage Mechanism, will be sufficient for market participants to value and trade the Shares in a manner that will not lead to significant deviations between intraday Best Bid/Best Ask and the Intraday Indicative Value as well as between the Best Bid/Best Ask and the NAV. In addition, the numerous options for buying and selling bitcoin will both provide Authorized Participants with many options for hedging their positions and provide market participants generally with potential arbitrage opportunities, further strengthening the Arbitrage Mechanism as it relates to the Shares. Furthermore, the Trust has discussed with several prominent market participants the possibility of acting as an Authorized Participant and/or a Market Maker, each of which is an experienced participant in the ETP marketplace and is actively engaged in trading ETPs. A number of these potential Authorized Participants and Market Makers currently trade bitcoin and are already registered participants that trade on the Gemini Exchange. Based on their experience in ETPs and in the Bitcoin marketplace, these market participants have indicated that they believe that they will be able to make efficient and liquid markets in the Shares at prices generally in line with the NAV.

Authorized Participants will be able to acquire bitcoin for delivery to the Trust by a variety of means. Authorized Participants will not be required to use the Gemini Exchange to trade their bitcoin and the Gemini Exchange is not the only venue on which Authorized Participants can purchase bitcoin for delivery to the Trust. However, as discussed above, the ability to transact in bitcoin on the Gemini Exchange may provide (i) a convenient and stable venue with superior liquidity characteristics in which to purchase or sell bitcoin, (ii) an efficient way to trade bitcoin, and (iii) a safe place to store purchased bitcoin for future use in the creation of Baskets given the regulatory oversight to which the Gemini Exchange is subject.

The Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. The Exchange will halt trading in the Shares under the conditions specified in BZX Rule 11.18. Trading 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: (i) the extent to which trading is not occurring in the financial instruments underlying the Shares; or (ii) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. Trading in the Shares also will be subject to Rule 14.11(e)(4)(E)(ii), which sets forth circumstances under which trading in the Shares may be halted.

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 Commodity-Based Trust Shares 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 from other Bitcoin Exchanges with which the Exchange has entered into a comprehensive surveillance

sharing agreement. In addition, as noted above, investors will have ready access to information regarding bitcoin pricing and bitcoin information, as well as equitable access to the Trust's Intraday Indicative Value, NAV, and quotation and last sale information for the Shares.

For the above reasons, the Exchange believes that the proposed rule change is consistent with the requirements of Section 6(b)(5) of the Act.

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 purpose of the Act. The Exchange notes that the proposed rule change will facilitate the listing and trading of an additional Commodity-Based Trust Share product that 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

The Exchange has neither solicited nor received written comments on 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 within such longer period 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 such 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-BatsBZX-2016-30 on the subject line.

##### Paper comments:

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

All submissions should refer to File Number SR-BatsBZX-2016-30. 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 such filing will also 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-BatsBZX-2016-30 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>45</sup>

Jill M. Peterson  
Assistant Secretary

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<sup>45</sup> 17 CFR 200.30-3(a)(12).