FTX US Derivatives

Digital Asset Information Appendix

Digital Asset: Bitcoin (BTC)

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General Overview

This Digital Asset Information Appendix (the "Appendix") is being published by FTX US Derivatives (the "Exchange") as an informational and educational tool in connection with the Exchange listing CFTC jurisdictional products that settle via the delivery of or reference to the price of (or a pricing index referencing the price of) the digital asset described herein. This Appendix will be updated and refreshed, from time to time and at least annually, in order to incorporate any material updates and changes that the Exchange deems necessary in order make this Appendix substantially complete and not materially false or misleading. Unless otherwise stated, the Exchange was not involved in the creation, invention, issuance, or distribution of the digital asset described in this Appendix, and the Exchange warrants only that the material presented herein reflects the results of its good faith efforts to collect and summarize the important economic, technical, and functional characteristics of the described digital asset. This is not a registration statement for purposes of the securities laws.

1	**The Digital Asset**
(A)	**Identification of the Digital Asset**. ● bitcoin or BTC.[1] ● Bitcoin is fully open-source and operates as a proof-of-work blockchain, which includes a shared public ledger and history of transactions organized into "blocks" that are "chained" together to prevent tampering; the proof-of-work consensus mechanism creates the "blocks" as a permanent record of each transaction.

[1] NOTE: This Appendix uses lowercase "b" bitcoin (or the symbol BTC) to refer to the tradeable digital asset token. Capital "B" Bitcoin is used to refer to the underlying Bitcoin blockchain network. When referring to a bitcoin, we include any fraction thereof, down to the smallest possible sub-unit of a bitcoin known as a "satoshi." Each bitcoin is composed of 100 million satoshis.

	● Users on the Bitcoin network verify transactions through a process known as mining, which is designed to confirm new transactions are consistent with older transactions that have been confirmed in the past, ensuring users can not spend a bitcoin they do not have or attempt to double-spend coins. ● The Bitcoin blockchain is often described as a Layer 1 blockchain network, meaning that it is a base blockchain network and does not reside on or rely on any other blockchain network for its functionality. ● The Bitcoin blockchain may be viewed at a number of publicly accessible blockchain explorers, some of which are open source and some privately operated; for example, see: ○ https://www.blockchain.com/explorer/assets/btc and ○ https://blockstream.info/.
(B)	**Creation / Genesis of the Digital Asset.** ● BTC was first formally theorized in the October 31, 2008 publication of the Bitcoin Whitepaper ("Bitcoin: A Peer-to-Peer Electronic Cash System"); the paper was released by Bitcoin's pseudonymous author and creator - a figure that self identified with the name Satoshi Nakamoto. ● To our knowledge, there was no initial fundraise or offering of BTC to investors or any other community; instead the first BTC, like all BTC, was generated through the mining process that supports the BTC blockchain's proof-of-work consensus mechanism. ● On January 3, 2009, the Bitcoin network came into existence with its still unknown and pseudonymous founder, Satoshi Nakamoto, mining the genesis block of bitcoin (block number 0), which had a reward of 50 bitcoin. ● There is a hard cap of BTC total supply at 21 million BTC, with approximately 19.151 million BTC circulating as of the date of this Appendix. The uncirculating BTC will be distributed as rewards and transaction fees to Bitcoin blockchain miners on a schedule that is expected to take more than 100 years. ● Blockchain.com describes the new bitcoin creation process as follows: ○ "*New coins are created as part of the Bitcoin mining process. Bitcoins are rewarded to miners who operate computer systems that help to secure the network and validate incoming transactions. These Bitcoin miners run full nodes and use*

	specialized hardware otherwise known as Application Specific Integrated Circuit Chips (ASICs) to find and generate new blocks. Once a series of computationally demanding problems have been solved a completed 'block' is added to the ever-growing 'chain', this mining process can fluctuate and become easier or harder depending on network demand and value, this is known as the network difficulty. Besides block rewards, miners also collect transaction fees which further incentivizes them to secure the network and verify transactions. This independent network of miners also decreases the chance for fraud or false information to be recorded, as the majority of miners need to confirm the authenticity of each block of data before it's added to the blockchain, in a process known as 'proof of work.'" ● The Bitcoin network runs on open source code that is available to any person or user. ● Bitcoin Core is an open source project which maintains and releases the Bitcoin client software called "Bitcoin Core", and there is a team of maintainers and contributors that may create and propose updates, corrections, fixes, etc., to the software. See: https://bitcoincore.org/.

2	**Purpose, Function, Governance, Users, and Maintenance**
(A)	**Digital Asset Purpose and its Network.** ● The purpose of bitcoin and the Bitcoin network, as stated in the Bitcoin White Paper, is to provide a purely peer-to-peer version of electronic cash to allow online payments to be sent directly from one party to another without going through a financial institution. ● BTC is the native token of the Bitcoin network and is viewed as an analogue or alternative to currency issued by centralized authorities, such as national governments (i.e., fiat currency). ● BTC transfers are permissionless, meaning that the sender of a bitcoin may send their bitcoin to any other Bitcoin network wallet / address as long as they have supplied the relevant private key that governs their own Bitcoin network wallet / address. The receiving wallet / address has no ability to reject or block a properly tendered incoming transfer.

	● From a technological perspective, a bitcoin or bitcoin transaction has only few functions or uses: ○ A bitcoin (or any fraction thereof, down to 1/100 millionth of a bitcoin, or a "Satoshi") may be held in a Bitcoin network wallet / address. ○ A bitcoin may be sent to another wallet / address. ○ Bitcoin is also used to pay the transaction or network fees required to complete a transfer of bitcoin. ○ Any given bitcoin transfer allows the sender to include a text message or note that is also codified in the resultant block once the transaction has been confirmed and added to a Bitcoin network block. ● While not a technological feature of the Bitcoin network, bitcoin may be used to buy goods and services from merchants and other individuals or companies, to the extent those individuals or companies have decided to accept bitcoin for the goods or services. ● Similarly, bitcoin is a permissible form of payment for taxes in certain jurisdictions (certain cities and states, for example) - again, in each case subject to applicable governing law and any implementing guidance or regulations.
(B)	**Blockchain and the Digital Asset.** ● The Bitcoin blockchain network is the critical underlying infrastructure that supports and makes possible the holding, transfer, and other use cases of bitcoin. ● Bitcoin is not the only Layer 1 blockchain network whose primary feature is a native token that is designed to be used as money and as an alternative to fiat currency. There are multiple competing blockchains that purport to offer a similar or better functionality, many of which are direct "forks" (or descendants that were generated using a modified copy) of the original bitcoin software. These include, for example, Bitcoin Cash and Litecoin.
(C)	**Digital Asset Function.** ● The Bitcoin network utilizes a proof-of-work mining consensus methodology. ● Mining is the process by which bitcoin is created and transactions are verified. A miner or user can begin the mining process by downloading

	a software program which turns the user's computer into a node on the Bitcoin network that validates blocks. As each bitcoin transaction is validated, new blocks are added to the Bitcoin blockchain and new bitcoin is issued to the miners. ● The miner must solve a complex computational algorithm in order to add a block to the Bitcoin blockchain. Each block can only be solved and added to the Bitcoin blockchain by one miner, therefore all miners are engaged in a competitive process of constantly increasing their computer power to improve their likelihood of solving the block. The miner's proposed block will be added to the Bitcoin blockchain once a majority of the nodes on the Bitcoin network confirms the miner's work. This process is called proof-of-work mining. ● As compensation for successfully adding a block to the Bitcoin blockchain, miners are automatically awarded a fixed amount of bitcoins and / or any transaction fees paid by transferors whose transactions are recorded in the block.
(D)	**Digital Asset Users and Community.** ● As noted above, the primary actors in the Bitcoin ecosystem are: ○ Owners of bitcoin (i.e., individuals and entities holding the private keys to access and control wallets / addresses); ○ Miners; and ○ Maintainers and contributors to the Bitcoin Core software project. ○ For each role, identify how many participants there are and how active they are in relation to the digital asset, or if too difficult to determine, what metrics can be used to gauge activity.
(E)	**Digital Asset Governance; Conflicts** ● The Bitcoin blockchain network does not have a governance body or other similar governing committee, management team, or board of directors. ● However, in theory anyone with the ability to control more than fifty percent (50%) of the computational mining capacity that is mining on the Bitcoin network at a given point in time could control the network; to our knowledge, this has not happened.
(F)	**Digital Asset Technology and Software Maintenance.**

	• As noted above, for details on how the Bitcoin network software code is maintained, and updated, please see https://bitcoincore.org/.
(G)	**Transparency; Roadmap; Environment.** • While some bitcoin holders may lend or otherwise place their bitcoin with third parties in order to earn interest or some rewards, absent such a relationship, there are no fees or other earnings that flow to a holder of bitcoin. • The Bitcoin blockchain network is not generally expected to be updated or expanded in terms of functionality and use cases. However, developers typically suggest new security features, or features that help the blockchain nodes maintain agreement in better ways, from time to time, which may or may not be adopted by a majority of the hashrate of the Bitcoin network. • Bitcoin proof-of-stake mining consumes large amounts of energy through electricity. The electricity used to mine bitcoin can be sourced from any electricity generating source. Where the electricity is sourced from electricity generation facilities that utilize fossil fuels or other similar inputs, there can be a negative environmental impact of that electricity generation. In parallel, the ability to mine bitcoin with electricity (including surplus electricity) has prompted several entrepreneurs to invest in clean and green energy generation assets in recent years.

3	**Financial Information**

(A)	**Digital Asset Token Economics**.
	
	• See (1)(B), above.
	
	• Size and related metrics -
	  ○ While difficult to identify with precision, there are more than 100,000 Bitcoin network nodes.
	  ○ Estimates suggest that there are more than 1 million bitcoin miners and 180 million bitcoin owners in the world.

(B)	**User Earnings.** • As noted above, while some bitcoin holders may lend or otherwise

	place their bitcoin with third parties in order to earn interest or some rewards, absent such a relationship, there are no fees or other earnings that flow to a holder of bitcoin.
(C)	**Sources of Funding**. ● The maintainers and contributors to the Bitcoin Core software project are largely self-funded and/or funded by grants from industry participants. ● Bitcoin network miners are generally self-funded and/or raise funds in the global capital markets on a competitive commercial basis. The development and related material operations of any Network ecosystem participants have been funded. ● While individual holders are generally free to sell or transfer their bitcoin, there is no known plan for or pending future offerings of bitcoin for sale or distribution by the Bitcoin network other than through rewards and transaction fees issued to miners.

4	**Other Information**
(A)	**Legal and Other Proceedings.** ● As of the date of this Appendix, the Exchange is unaware of any material legal or other similar proceedings or processes, whether through current or threatened litigation, known investigations that are reasonably likely to lead to litigation involving the Bitcoin blockchain network and bitcoin. ● There are occasionally claims made by persons that claim to be either Satoshi Nakamoto or otherwise the inventor of bitcoin, but to date no such claimant has presented with evidence or proof that has been found compelling by either the broader community of bitcoin industry participants or any judge or court.
(B)	**Selected Risk Factors.** ● Digital assets frequently do not represent legal tender, and many question whether they have intrinsic value. The price of many digital assets is based on the agreement of the parties to a transaction. ● The price of a digital asset is generally based on the perceived value of

	the digital asset and supply and demand forces, and is subject to changes in sentiment, which makes digital assets highly volatile. Certain digital assets have experienced daily price volatility of more than 20%. ● Digital assets may not and typically do not have rights traditionally associated with holders of equity or debt securities, including rights to dividends, rights in insolvency, or legal or contractual rights to exercise control in connection with the operations of any inventor, sponsor, issuer, or other similar person or entity. ● Futures, options, and swaps related to a given digital asset may be traded on a CFTC-licensed exchange but may also be traded through privately negotiated transactions and through numerous online trading platforms and intermediaries around the world. The lack of a centralized pricing source poses a variety of valuation challenges. In addition, the dispersed liquidity may pose challenges for market participants trying to exit a position, particularly during periods of stress. ● The relatively new and rapidly evolving technology underlying digital assets introduces unique risks. For example, a unique private key is typically required to access, use or transfer a digital asset. The loss, theft or destruction of a private key may result in an irreversible loss. The ability to participate in, or occurrence of, forks could also have implications for investors. ● The cybersecurity risks of digital assets and related “wallets” or markets include, among other things, hacking vulnerabilities and a risk that publicly distributed ledgers may not be immutable. A cybersecurity event could result in a substantial, immediate and irreversible loss for investors in a digital asset or its value. Even a minor cybersecurity event in a digital asset is likely to result in downward price pressure on that product and potentially other digital assets. ● One or more jurisdictions may, in the future, adopt laws, regulations or directives that affect digital assets, underlying networks, and their users. Such laws, regulations or directives may impact the price of digital assets and their acceptance by users, merchants and service providers. These can include developments in commodities laws, securities laws, consumer protection, tax, and privacy or other legal or regulatory regimes implicated by the use of the digital asset and/or network as applicable. ● Many digital assets and, where applicable, their underlying networks rely substantially on the engagement and contributions of a developer community that is frequently under no obligation to continue supporting, developing on, or otherwise engaging with the digital asset and/or the network. The cessation of engagement by and contributions from certain developer communities can result in meaningful decreases in the value of a digital asset.

5	**Other Resources and Disclosures**
(A)	**CFTC Resources.** Additional information regarding futures trading and digital assets has been prepared by the Commodity Futures Trading Commission ("CFTC") and may be found as follows: ● *Basics of Futures Trading.* https://www.cftc.gov/LearnAndProtect/AdvisoriesAndArticles/FuturesMarketBasics/index.htm ● *Futures Glossary.* https://www.cftc.gov/LearnAndProtect/AdvisoriesAndArticles/CFTCGlossary/index.htm ● *An Introduction to Virtual Currency.* https://www.cftc.gov/sites/default/files/2019-12/oceo_aivc0218.pdf ● *Lab CFTC Educational Resources:* ○ *Digital Assets Primer* (Dec. 17, 2020). https://www.cftc.gov/PressRoom/PressReleases/8336-20 ○ *A Primer On Virtual Currencies* (Oct. 17, 2017). https://www.cftc.gov/sites/default/files/idc/groups/public/documents/file/labcftc_primercurrencies100417.pdf ○ *A Primer on Smart Contracts* (Nov. 27, 2018). https://www.cftc.gov/sites/default/files/2018-11/LabCFTC_PrimerSmartContracts112718.pdf ● *Customer Advisory: Understand the Risks of Virtual Currency Trading.* https://www.cftc.gov/LearnAndProtect/AdvisoriesAndArticles/understand_risks_of_virtual_currency.html ● *Customer Advisory: Understand Risks and Markets before Reacting to Internet Hype.* https://www.cftc.gov/LearnAndProtect/AdvisoriesAndArticles/CustomerAdvisory_SocialMedia_Metals.html
(B)	**NFA Resources.** While FTX US Derivatives is not in any way regulated by the National Futures Association ("NFA"), additional information regarding futures trading and digital assets has been prepared by NFA and may be found as follows: ● *Futures Fundamentals.* https://www.nfa.futures.org/investors/investor-resources/files/futuresFundamentals.html ● *Investor Education Resources.* https://www.nfa.futures.org/investors/investor-resources/index.html ● *NFA Investor Advisory - Futures on Virtual Currencies Including Bitcoin* (Dec. 1, 2017). https://www.nfa.futures.org/investors/investor-advisory.html PARTICIPANTS SHOULD BE AWARE THAT FTX US DERIVATIVES IS **NOT**

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