BITCOIN OR BUST: CAN ONE REALLY "TRUST" ONE'S DIGITAL ASSETS?

Comment

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I. Introduction

"If we want free enterprise and a market economy to survive . . . we have no choice but to replace the governmental currency monopoly and national currency systems by free competition between private banks of issue."

An argument—contained in many scholarly articles and written by world-renowned economists and academics—has existed for years: the government continuously fails to supply "good money." Society may not succeed in avoiding governmental control of money; however, the invention and use of digital currencies, such as bitcoin, has created an atmosphere of competition against United States currency. This is important from an economic standpoint because bitcoin, as digital currency, has its own autonomous basis for legitimacy and power. As such, Bitcoin has a formidable following of users and advocates for digital currency.

^{1.} F.A. HAYEK, DENATIONALISATION OF MONEY—THE ARGUMENT REFINED: AN ANALYSIS OF THE THEORY AND PRACTICE OF CONCURRENT CURRENCIES 130 (3d ed. 1990), available at http://mises.org/sites/default/files/Denationalisation%20of%20Money%20The%20Argument%20Refined 5.pdf.

^{2.} See id. at 9–10.

^{3.} See generally id. at 10 (discussing governmental control of money and the need for competing currencies created by private issuers rather than a monopoly by the government).

^{4.} See generally Bitcoin Competing Against the US Dollar, PRESENT CYNOSURE (Aug. 7, 2011), http://presentcynosure.wordpress.com/2011/08/07/bitcoin-competing-against-the-us-dollar/ (discussing the correlation between both the strength of a particular currency and that of the economy in which the currency circulates). In this comment, Bitcoin (transcribed with a capital "B") is used to refer to the global transaction network; bitcoin (transcribed with a lowercase "b") is used to refer to the unit of digital currency. See Bitcoin Overview, BITCOIN INVESTMENT TR., http://bitcointrust.wpengine.netdna-cdn.com/wp-content/uploads/2014/12/Fact-Sheet_Dec.pdf (last visited May 31, 2015).

^{5.} See generally Bitcoin - Daily Number of Transactions, COINDESK, http://www.coindesk.com/data/bitcoin-daily-transactions/ (last visited Feb. 5, 2015) (providing information of daily bitcoin transactions). The number of daily bitcoin transactions fluctuated from a little over 40,000 at the beginning of January 2014, to over 70,000 at the beginning of February 2015, with a peak at over 100,000 transactions mid-January 2015. Id. Users have circulated over 1.5 million bitcoins from January 2014 to February 2015. See Bitcoin - Total XBT in Circulation, COINDESK, http://www.coindesk.com/data/bitcoin-total-circulation/ (last visited Feb. 5, 2015).

There are many reasons why people choose to use bitcoins; however, one thing is certain: digital currency is a fundamental part of the digital revolution that inspired individuals, such as Satoshi Nakamoto, to create Bitcoin.⁶ Since 2009, society has circulated almost 14,000,000 bitcoins.⁷ This amount is indicative of the immense following Bitcoin has generated since its creation.⁸

With such an established presence, Bitcoin users and attorneys must handle bitcoin assets with due care. Twenty-first century estate planning will require consideration and protection of digital assets. Attorneys and investors should consider bitcoin and other forms of digital currencies for estate planning purposes because digital assets may form a substantial part of one's estate. However, significant issues will likely arise because no government entity has established definite standards for bitcoin regulation and taxation. ¹²

This comment addresses the technological composition of Bitcoin and estate planning for digital assets. It provides information about how investors use and collect bitcoins as digital currency, and how such accumulation of digital wealth will necessarily lead to a transition into estate planning objectives.

Part II of this comment presents background information—as a means of orientation to the world of digital currency—including a foundation to Bitcoin, how it works, and who works within the system.¹³ Next, Part III discusses an overview of bitcoin regulation by different entities.¹⁴ Part IV includes the Internal Revenue Service's (IRS) recent classification of bitcoin as property and what that classification means for the future of Bitcoin.¹⁵ In addition, Parts V and VI of this comment incorporate a brief synopsis of

^{6.} See Konrad S. Graf, Bitcoin: Magic, Fraud, or Sufficiently Advanced Technology?: Part I, BITCOIN MAGAZINE (Sept. 29, 2014), http://bitcoinmagazine.com/16883/bitcoin-magic-fraud-or-sufficiently-advanced-technology-part-i/.

^{7.} See Total Bitcoins in Circulation, BLOCKCHAIN INFO, https://blockchain.info/charts/total-bitcoins (last visited Feb. 4, 2015). From January 5, 2015, to February 5, 2015, over 100,000 bitcoins have been circulated. Id. In terms of market capitalization, in January 2015, the number of bitcoins in circulation multiplied by the market price in United States dollars was \$3,140,137,000. See Market Capitalization, BLOCKCHAIN INFO, https://blockchain.info/charts/market-cap (last visited Feb. 4, 2015).

^{8.} See generally Total Bitcoins in Circulation, supra note 7 (providing detailed data regarding bitcoin transactions and currency statistics).

^{9.} See generally Why Invest in the BIT?, BITCOIN INVESTMENT TR., http://www.bitcointrust. co/#Why (last visited Dec. 21, 2014) (explaining the importance of storage and safekeeping of bitcoins and how to invest with bitcoins).

^{10.} See George D. Greenberg, Estate Planning and Bitcoin, ATT'Y BITCOIN, http://www.attorneybitcoin.com/estate-planning-bitcoin/ (last visited Dec. 21, 2014).

^{11.} See generally id. (outlining general issues that bitcoin investors face with estate planning and taxation).

^{12.} See generally id. (explaining that many issues must be addressed when planning for the future with digital assets).

^{13.} See discussion infra Part II.

^{14.} See discussion infra Part III.

^{15.} See discussion infra Part IV.

bitcoin taxation followed by a cost-benefit analysis of bitcoin investments. Part VII includes a discussion of estate planning options for digital assets. This section discusses placing bitcoins into a trust and the importance of anticipating the future with bitcoins. This comment primarily focuses on Texas trust law regarding the creation and maintenance of a trust. Part VIII contains information about the trustee's rights and responsibilities of protecting the assets in a bitcoin trust. Part IX addresses potential issues with bitcoin estate planning, particularly investing in bitcoin and placing bitcoin assets into a trust. Finally, Part X proposes changes that wallet storage companies and estate planning attorneys should make in order to help bitcoin users achieve a sound estate planning objective. Part IX addresses

II. OVERVIEW OF BITCOIN

A. Liberty, Justice, Truth

Bitcoin: is it a digital coin that exists within cyberspace, or is it a computer protocol utilized to support electronic transactions? It is both.²³ Bitcoin is a global transaction network and a source of fixed supply digital currency.²⁴ Bitcoin—a decentralized network designed in an open process—is an open-source protocol, which means that the public can access the network.²⁵ Bitcoin users partake in a monetary system that is not entirely secure, but is a decentralized source of exchange with its own methods and means to create and preserve a globally recognized form of digital currency.²⁶

As stated by Bitcoin developer Satoshi Nakamoto, the Bitcoin system allows for electronic transactions without relying on the trust associated with centralized banking institutions and government issuance of currency.²⁷

- 16. See discussion infra Parts V-VI.
- 17. See discussion infra Part VII.
- 18. See discussion *infra* Part VII.
- 19. See discussion infra Parts VII-VIII.
- 20. See discussion infra Part VIII.
- 21. See discussion infra Part XI.
- 22. See discussion infra Part X.

^{23.} See generally JERRY BRITO & ANDREA CASTILLO, BITCOIN: A PRIMER FOR POLICYMAKERS 3–4 (2d ed. 2013), available at http://www.scribd.com/doc/254575296/Bitcoin-A-Primer-For-Policy-Makers (explaining that bitcoin is a digital currency and a decentralized digital payment system). "Liberty, Justice, Truth" is the shortened translation of the Bitcoin motto, "Libertas, Aequitas, Veritas, In Cryptography We Trust." See generally Yael Ossowski, How to Avoid Bank Fees with Bitcoin, STATELESS MAN (June 3, 2013), http://thestatelessman.com/2013/06/03/using-bitcoin/ (hosting a picture of the symbolic coin of Bitcoin, with the Bitcoin motto across its face).

^{24.} See Bitcoin Overview, supra note 4. The Bitcoin system only supports the circulation of twenty-one million bitcoins. Id.

^{25.} See id.

^{26.} See generally Graf, supra note 6 (discussing Bitcoin's free and open nature and its ability to transcend global borders with ease, unlike other recognized forms of currencies).

^{27.} See Satoshi Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System, BITCOIN 1, https://bitcoin.org/bitcoin.pdf (last visited May 31, 2015).

Since Bitcoin's formation in 2009, Bitcoin, as a global network, has facilitated transactions through its peer-to-peer network.²⁸ The notion of trust is fundamental to both the creation and use of Bitcoin.²⁹ The person(s) who created Bitcoin implemented the system to avoid the use of third-party intermediaries and the control of financial institutions.³⁰

The current trust-based model of financial institutions that requires users to place trust in third-party intermediaries contains an inherent weakness.³¹ Financial institutions cannot avoid mediating disputes between persons completing transactions; thus, there is no such thing as a nonreversible transaction.³² Practical transaction sizes are limited because financial institutions must increase transaction costs to cover increased mediation costs.³³ Bitcoin is one solution to this issue: users may use the digital currency for casual transactions and may trust in the irreversibility of bitcoin transactions.³⁴

Trust, as manifested in day-to-day purchases over the Internet, requires the purchaser to divulge more personal information for merchants to avoid the issue of fraud.³⁵ Generally, trust of assured reliance and dependence on the ability, strength, character, or truth of someone or something, is a main component of Bitcoin.³⁶ Trust, in context with bitcoins, comes in the form of verification.³⁷ Transactions are not necessarily nonreversible; neither the goods and services nor the payment itself are nonreversible.³⁸ This issue tends to promulgate the use of physical currency, though that may not always be feasible or desired.³⁹ Nakamoto created Bitcoin to remedy the issue of trust by implementing an electronic payment system that allows parties to transact directly.⁴⁰ By cutting out the middleman and relying on "crypto-

- 30. See id.
- 31. See id.
- 32. See id. Reversible transactions require more trust from transacting parties and more information to cover transaction costs and the possibility of fraud. See id.
 - 33. See id.
- 34. See generally id. (explaining the level of trust necessary in our current system of fiat currency, such as trusting the merchants with more personal and financial information per transaction). Bitcoin may also be invested in for wealth accumulation. See infra Parts VII.B.1–2 (discussing the use of bitcoin investments to acquire bitcoins for purposes beyond day-to-day transactions).
 - 35. See Nakamoto, supra note 27.
- 36. See Trust Definition, MERRIAM-WEBSTER, http://www.merriam-webster.com/dictionary/trust (last visited Dec. 21, 2014); Graf, supra note 6.
- 37. See generally Graf, supra note 6 (explaining that Bitcoin's central function of exchange is maintained by verification of blocks of transactions).
 - 38. See Nakamoto, supra note 27.
- 39. See id. (noting that "[n]o mechanism exists to make payments over a communications channel without a trusted party.").
 - 40. See id.

^{28.} See About Bitcoin, BITCOIN INVESTMENT TR., http://www.bitcointrust.co/about-bitcoin/ (last visited Dec. 21, 2014).

^{29.} See generally Nakamoto, supra note 27 (stating that Bitcoin was created without relying on trust; rather, it is based on the peer-to-peer network and proof-of-work systems).

graphic proof," Bitcoin users may trust in the irreversible nature of their digital transactions on the network.⁴¹

In addition, bitcoins are "digitally-native, protocol-specific units of data[.]" In other words, bitcoins are digital money typically used by investors and financially savvy computer experts. The concept of digital money is somewhat novel: the electronic coin is comprised of a chain of digital signatures created to transfer coins to and from owners. One owner transfers a bitcoin by digitally signing a hash of a previous transaction along with the public key of the subsequent owner and adding the signature to the end of the coin. Hashing algorithms and digital signatures help contribute to, what one monetary theorist called, Bitcoin's central functions: "verification, unforgeable record-keeping, and fraud prevention."

A "hash" is an algorithm that is used to create public messages to communicate with other Bitcoin users. ⁴⁷ Any sized message can go into a hash function; the algorithm processes the message and produces a "digest," which is a computed message comprised of a fixed-length string of letters and numbers used in the hash. ⁴⁸ Hashes comprise a critical part of the trust component of the Bitcoin system due to the fact that hashes cannot be altered. ⁴⁹ If a user alters a hash message, the user will create a completely different digest from the algorithm. ⁵⁰ When a user runs a hash of a message from another user, the message always produces the same result. ⁵¹ A red flag appears if a user receives a current form of a message that does not match the original message. ⁵²

At this point, the issue of trust comes into play once more in the form of verification of transactions in order to avoid double spending of the bitcoin.⁵³ Bitcoin has an open source approach, which means users are free to use the

^{41.} See generally id. (stating that irreversible transactions would protect sellers from fraud).

^{42.} Bitcoin Overview, supra note 4.

^{43.} See generally Nikolei M. Kaplanov, Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation, 25 LOY. CONSUMER L. REV. 111, 127 (2012) (explaining business-related concepts of bitcoin and why certain people decide to use bitcoin).

^{44.} See Nakamoto, supra note 27; see also infra note 68 and accompanying text (stating that the blockchain is a public ledger of all bitcoin transactions).

^{45.} See Nakamoto, supra note 27. Once a hash is signed, it creates a "digital signature valid only for [that] transaction and no other" which becomes public information. Konrad S. Graf, Bitcoin: Magic, Fraud, or Sufficiently Advanced Technology?: Part II, BITCOIN MAG. (Sept. 30, 2014), http://bitcoinmagazine.com/16888/bitcoin-magic-fraud-or-sufficiently-advanced-technology-part-ii/. A public key is a string of numbers that represents the user's Bitcoin wallet. See infra text accompanying note 88.

^{46.} Graf, *supra* note 45.

^{47.} See Graf, supra note 6.

^{48.} See id.

^{49.} See id.

^{50.} See id. Hashing prevents any forgery from taking place within the blockchain. See Graf, supra note 45.

^{51.} See Graf, supra note 6.

^{52.} See id.

^{53.} See Nakamoto, supra note 27, at 2.

software and to examine transactions on the blockchain.⁵⁴ This system is good for security purposes and for reinforcing users' trust in the functionality of Bitcoin.⁵⁵ Users' verification of transactions maintains the integrity of the blockchain.⁵⁶ Such verification replaces users' reliance on trust of other anonymous users around the world.⁵⁷

The solution to avoid double spending, and thus, promote trust in the Bitcoin system, is to track each transaction, similar to what a trusted central authority would do.⁵⁸ However, instead of one institution having the authority to watch and guard all transactions, the Bitcoin system publicly announces all transactions to resolve this issue.⁵⁹ In addition, a majority of users must agree on a single history of the sequence of received transactions in order to verify the original receipt of each transaction.⁶⁰

After the user receives the transaction, Bitcoin implements a "timestamp server," which takes a hash of a block of time stamped items and publishes the hash to prove that the data existed at the time it was first received—the data must have existed at that time in order to get into the hash.⁶¹ At this point, through a proof-of-work system, users must distribute the time stamp information on a peer-to-peer basis.⁶² Proof-of-work involves "scanning for a value that when hashed . . . the hash begins with a number of zero bits."⁶³ The Bitcoin system inserts a nonce in the block until a computer processing unit can find the value and provide the required zero bits for the block's hash.⁶⁴

Once multiple users exert their individual computer processing unit power to solve the block, they satisfy the proof-of-work requirement; thus, users cannot change the block without redoing the proof-of-work of the

^{54.} See Graf, supra note 6. The blockchain is a public ledger of all validated bitcoin transactions. See Aniket Ullal, Understanding the Proposed Bitcoin ETF: 5 Key Questions, NASDAQ (Nov. 11, 2014, 11:09 AM), http://www.nasdaq.com/article/understanding-the-proposed-bitcoin-etf-5-key-questions-cm 412799.

^{55.} See Graf, supra note 6.

^{56.} See id.

^{57.} See generally id. (discussing the replacement of trust, which is present in a typical monetary system, by verification of records of Bitcoin transactions).

^{58.} See Nakamoto, supra note 27, at 2.

^{59.} See id

^{60.} See id. The concept of tracking the first received transaction allows users to avoid any issues with double spending of bitcoins. See id.

^{61.} Id.

^{62.} See id. at 3.

^{63.} *Id.* The zero bit information is pertinent to the discussion of tracking transactions on the Bitcoin network. *See generally id.* (discussing the process of creating and securing Bitcoin transactions).

^{64.} See id. A nonce is a random value that provides a mechanism for a sender to insert arbitrary data into a message and a way for block transaction information to stay secure and original per block. See Nonce Class, MICROSOFT DEVELOPER NETWORK, http://msdn.microsoft.com/en-us/library/microsoft. web.services3.security.nonce.aspx (last visited Jan. 30, 2015); see also Nakamoto, supra note 27, at 3 (discussing the details of proof-of-work systems and the importance of nonces to encrypt messages in each block).

specific block and all the blocks after it.⁶⁵ In essence, this layer of security promotes honest nodes—users' individual electronic networking devices—which combats any issues with people attacking the block's hashes to corrupt the Bitcoin system.⁶⁶ This work creates a public ledger of all the bitcoins and transactions in the Bitcoin system: the "blockchain."⁶⁷

The blockchain is a public record of all of the validated transactions added to previously validated transactions. Miners must validate each transaction in the Bitcoin system. Miners validate transactions by solving the mathematical proof necessary to break the block and award bitcoins to users involved in the transaction, and to add to the record of previous transactions. The blockchain is publicly transmitted across the Bitcoin network. Every user carries the entire blockchain of transactions; thus, users catalog every action on the Bitcoin system so that it is available for the public to view. Although different entities have produced and minted bitcoins, they do not really exist outside the context of the blockchain record.

The amount of work required to execute a single hash is exponential.⁷⁴ Bitcoin users must possess additional computer resources in order to comport with the Bitcoin system.⁷⁵ However, when users become interested in running their nodes more frequently, the Bitcoin network is programmed to make the proof-of-work system of distributing the timestamp information to all peers on the network more difficult.⁷⁶

Overall, the Bitcoin system incentivizes network users to become the first transaction in a block; in turn, the users' nodes support the network by

^{65.} See Nakamoto, supra note 27, at 3.

^{66.} See id.

^{67.} See Bitcoin Overview, supra note 4. Blockchains are the building blocks of the Bitcoin system. See Graf, supra note 6.

^{68.} See Ullal, supra note 54.

^{69.} See id.

^{70.} See generally id. (explaining the role of miners and the process of validating transactions to create the blockchain—an integral part of Bitcoin).

^{71.} See id. If a user searches the blockchain, he or she will find references to wallet addresses used and contained within the blockchain, as well as all the related transaction history. See Graf, supra note 6.

^{72.} See Graf, supra note 6.

^{73.} See generally The Magic of Mining, ECONOMIST (Jan. 10, 2015), http://www.economist.com/news/business/21638124-minting-digital-currency-has-become-big-ruthlessly-competitive-business-magic (discussing Bitcoin minting by large scale Bitcoin miners and other users). See also Graf, supra note 6 (explaining that bitcoins exist only in the context of the blockchain, not in Bitcoin wallets).

^{74.} See Nakamoto, supra note 27, at 3. Mining consists of a hash function being run over an incredibly large number of times by a computer. See Graf, supra note 45.

^{75.} See Bitcoin Overview, supra note 4.

^{76.} See Nakamoto, supra note 27, at 3. Generally, if blocks are moved too frequently, on an hourly basis, the difficulty of proof-of-work increases to keep the total number of bitcoins below the maximum amount of 21 million BTC. See id. It is important to note that the universe of available bitcoins may only grow by twenty-five bitcoin units every ten minutes. See Tom Lydon, Bitcoin ETF Backers Winklevoss Twins Make Case for Digital Currency, ETF TRENDS (Sept. 17, 2014, 4:00 PM), http://www.etftrends.com/2013/09/bitcoin-etf-backers-winklevoss-twins-make-case-for-digital-currency/.

accepting the network transactions of the block.⁷⁷ This process is called "mining." Miners have a critical, dual purpose: (1) to validate transactions, and (2) to facilitate the creation of new bitcoins. The reward to mining is to receive new bitcoins. Miners receive new bitcoins and the associated transaction fees. Additionally, the incentive may also come in the form of transaction fees that add to the value of the block that holds the transaction. More importantly, this incentive drives the same trust component of the Bitcoin system, for it encourages nodes to generate new coins—a process that rewards the user with more bitcoins—and not to defraud other nodes. Miners receive new coins—a process that rewards the user with more bitcoins—and not to defraud other nodes.

Once the user acquires the bitcoins, the user typically stores them in a digital wallet. The digital wallet holds bitcoins for electronic safe-keeping. A numeric string called a public key, located on the blockchain, represents the wallet. Users retain a private key to access the wallet as well. The public key is similar to a username and the private key is similar to a password kept secretive by the bitcoin owner. The public key serves as a key address; any Bitcoin user can send bitcoins to the public key address. However, the process of transferring bitcoins to different users requires the transferring user to disclose both public and private keys.

Wallets do not contain any bitcoins.⁹¹ Rather, they contain the bitcoin passwords or codes, the necessary "keys to the kingdom" to access the

- 82. See Nakamoto, supra note 27, at 4.
- 83. See id.
- 84. See Bitcoin Overview, supra note 4.
- 85. See id.
- 86. See id.
- 87. See id. But see infra text accompanying note 409 (discussing Coinbase, a Bitcoin wallet storage and exchange company that does not allow users to retain their private keys).
- 88. See generally Bitcoin Overview, supra note 4 (explaining how digital wallets work with private and public keys).
- 89. See id. The technical process of a signing key is as follows: first, a signing key is created; second, that key is cryptographically generated to create a compressed and public version of the signing key; last, the verification key is hashed into a public address, which enables bitcoins to be sent to and from peers. See Graf, supra note 6. One website has made public a signing key, rendering it insecure, but very helpful for Bitcoin beginners to conceptualize all of the technology behind the system. Id.
 - 90. See Bitcoin Overview, supra note 4.
- 91. See John Villasenor, Secure Bitcoin Storage: A Q&A with Three Bitcoin Company CEOs, FORBES (Apr. 26, 2014, 12:36 PM), http://www.forbes.com/sites/johnvillasenor/2014/04/26/secure-

^{77.} See Nakamoto, supra note 27, at 4; see Bitcoin Overview, supra note 4.

^{78.} See Bitcoin Overview, supra note 4.

^{79.} See Ullal, supra note 54. Every ten minutes the whole Bitcoin system updates records of recent transactions, and, in that increment, miners must solve the cryptographic puzzles and deliver the answer to every user in the system. See Lydon, supra note 76.

^{80.} See Bitcoin Overview, supra note 4. If a potential block becomes recognized as the next link in the blockchain, the miner is awarded bitcoins. See Graf, supra note 45. Miners receive twenty-five new bitcoins for solving the puzzles. See Lydon, supra note 76.

^{81.} See Bitcoin Overview, supra note 4; see also Danny Bradbury, Bitcoin Transaction Fees to Be Slashed Tenfold, COINDESK (Feb. 28, 2014), http://www.coindesk.com/bitcoin-transaction-fees-slashed-tenfold/ (explaining that transaction fees are small amounts paid to users to send Bitcoin transactions around the Bitcoin network, similar to postage stamps and as an incentive for miners to confirm the transactions by including them into the blockchain).

individual wallets, which hold all of the individual keys and addresses required to obtain the digital signatures that verify the individual bitcoins. One of the most intriguing concepts behind Bitcoin is that users may store bitcoin access in the same units but in different mediums, such as paper and digital wallets. It is important to note that while bitcoins do not exist in the physical sense, the Bitcoin user still has possession of them. Possession enables the user to make use of the bitcoins. As long as users have the signatures to verify the bitcoins, they possess the bitcoin riches.

Regardless of whether the original developer intended to create a system separate from the traditional trust-based model, it seems that there is a basic level of trust necessary for the system to incorporate new users and to keep current users inside the network. Trust will allow the system to continue to work; the "consensus mechanism" of accepting proof-of-work chains and the public ledger that the chains create will never become corrupted by attackers, rendering users' bitcoins worthless. 98

B. Digital/Virtual Currency

Many different entities have categorized bitcoin as numerous things since its creation in 2009: digital currency; cryptocurrency; virtual currency; decentralized digital currency; and, most recently, property. Bitcoin is a relatively new technological advancement. Bitcoin is comprised of several major streams of technology and methods, which many persons not adept to

bitcoin-storage-a-qa-with-three-bitcoin-company-ceos/. This type of encryption is called "symmetric key cryptography" because the user may use the key to encrypt and decrypt. See Graf, supra note 6.

- 94. See Graf, supra note 6.
- 95. See id.
- 96. See id.

^{92.} See Graf, supra note 6. Verification of the individual bitcoins allows for transactions on the blockchain record. See id.

^{93.} See id. Bitcoin wallets held in "cold storage" are maintained by a paper copy of the private key to the wallet or are stored on a nonconnected hard drive. See Joseph Wright, Bitcoin Is Creating New Headaches for Estate Planners, Though It May Someday Cure Them, DIGITAL PASSING (May 14, 2014), http://www.digitalpassing.com/wordpress/wp-content/uploads/2014/05/Bitcoin5-14-2014.pdf. If bitcoin users have a significant amount of bitcoins, they should store their bitcoins in cold storage and only move the bitcoins online when they engage in transactions. Id.; see also Part VII.B.1 (discussing bitcoin wealth accumulation and the importance of the user creating a trust for such accumulation).

^{97.} See generally Nakamoto, supra note 27, at 4 (explaining that the Bitcoin electronic payment system works because it is based on cryptographic proof instead of trust in a third party).

^{98.} See generally id. (discussing the importance of individual users working to extend valid blocks on the blockchain to make the Bitcoin system structurally sound).

^{99.} See Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (FIN-2013-G001), U.S. DEP'T TREASURY, FINCEN ENFORCEMENT NETWORK (Mar. 18, 2013), http://fincen.gov/statutes_regs/guidance/html/FIN-2013-G001.html; I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf. See generally Vitalik Buterin, FINCEN: Bitcoin Users Not Regulated, Exchanges Are, BITCOIN MAG. (Mar. 19, 2013), bitcoinmagazine .com/3734/fincen-bitcoin-users-not-regulated-exchanges-are/ (explaining the significance of FinCEN's classification of bitcoin).

^{100.} See Graf, supra note 6.

the world of digital currencies and online-exchange networks may find difficult to conceptualize. 101

"[V]irtual currency is a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency." The basic premise of Bitcoin and digital currencies is that they "establish a medium of exchange based on immutable mathematics and [are] not subject to the control or manipulation of any government." Creators of digital currency intended to develop a nongovernment backed medium of exchange not capable of governmental manipulation, such as fiat currency. However, unlike with fiat money, one can convert bitcoin into other forms of currency. Real currency, or "fiat currency," is currency that the United States government has declared as legal tender, the value of which is not backed by a physical commodity, such as gold or silver, but is derived from a supply and demand relationship. Fiat currency, however, derives its value from regulation or state law. Bitcoins, in their original form, have no intrinsic or universally recognized value.

In addition, Bitcoin, as both a system and as a unit of digital currency, is comparable to fiat currency; the value of fiat currency is purely dependent on trust—trust in the uniform acceptance of the currency for purposes of trade and to purchase goods at the certain value commonly recognized. The United States dollar has served as the medium of exchange because citizens have agreed to accept it as such, similar to the smaller and differentiated factions of citizens that currently accept bitcoins for the same purpose. 110

^{101.} See generally id. (explaining reasons why many people fail to understand Bitcoin and its creation from many sources stemming from progressive technological developments since the 1970s).

^{102.} Buterin, supra note 99.

^{103.} See Martin Mushkin, Joseph Sahid & Joseph Taub, United States: Virtual Currency Is Here to Stay—Bitcoin Is the Latest Evolution, Monday (Apr. 7, 2014), http://www.monday.com/unitedstates/x/305270/Financial+Services/Virtual+Currency+Is+Here+To+Stay+Bitcoin+Is+The+Latest+Evolution.

^{104.} See id.

^{105.} I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf.

^{106.} Fiat Money, INVESTOPEDIA, http://www.investopedia.com/terms/f/fiatmoney.asp (last visited Jan. 19, 2015).

^{107.} See Kaplanov, supra note 43, at 115. Fiat currency is subject to hyperinflation because it is not linked to physical reserves. See Fiat Money, supra note 106.

^{108.} See Kaplanov, supra note 43, at 115.

^{109.} See Mushkin, Sahid & Taub, supra note 103.

^{110.} See generally id. (explaining fiat currency in general and the role of digital currency as a revolutionized medium of exchange).

1. Decentralized Digital Currency

There are several types of digital currencies in existence today. ¹¹¹ Bitcoin is a form of decentralized currency. ¹¹² Decentralized digital currency "has no central repository and no single administrator" and allows for persons to obtain the currency by their own manufacturing and computing efforts. ¹¹³ Bitcoin—a decentralized network—is an open-source protocol, which means that the network is publicly available and was designed in an open process. ¹¹⁴

No central authority has control over Bitcoin; therefore, no bank or other institution can take it away. Bitcoin's decentralized network allows for any interested person to download Bitcoin software and start a new node. The peer-to-peer classification comes from the ability of nodes to discover and communicate with other nodes or peers. Though specific nodes may be faster and relay more transactions or perhaps have more connections, there is no central authority with Bitcoin.

The decentralized nature of Bitcoin is one reason why people choose to put their trust in the volatile digital currency. However, with decentralization and an open, free source like Bitcoin comes the responsibility for users to actively maintain the software. Investors, miners, administrators, and basic users of Bitcoin share their concerns for maintenance through the software's forums, which ensures that multiple sets of eyes are on individual software problems.

C. Roles Within Bitcoin

1. Administrator, Miner, Exchanger, User

Bitcoin users consist of the administrators, exchangers, and miners of bitcoin. These entities are integral to the system; users propagate the system by utilizing continuous peer-to-peer networking in an open-source,

^{111.} See Buterin, supra note 99. E-currency "involves the broker or dealer electronically distributing digital certificates of ownership of real currencies or precious metals, with the digital certificate being the virtual currency." Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99. Centralized digital currencies have a "centralized repository." Id. As such, they are not tokens for real currency but are currency in their own right. See Buterin, supra note 99.

^{112.} Buterin, supra note 99.

^{113.} Id.

^{114.} See id.

^{115.} See Why Use Bitcoin, COINDESK, http://www.coindesk.com/information/why-use-bitcoin/ (last updated Feb. 20, 2014).

^{116.} See Graf, supra note 6.

^{117.} See id.

^{118.} See id

^{119.} See Nakamoto, supra note 27, at 3.

^{120.} See Graf, supra note 6.

^{121.} See id.

^{122.} See Buterin, supra note 99.

free software model.¹²³ Users' self-interest in maintaining the alleged structural soundness of the Bitcoin system and in promoting a separate currency that is dependable and competitive is what stabilizes the digital currency and allows for users to control the digital system and make it acceptable to all users.¹²⁴ Users manifest their self-interest as perpetual maintenance of the Bitcoin system: unremitting mining, solving of blockchain algorithms, exchanging bitcoins, and verifying of bitcoin addresses.¹²⁵

The Financial Crimes and Enforcement Network (FinCEN) defined a Bitcoin administrator as "a person engaged as a business in issuing (putting into circulation) a virtual currency, and who has the authority to redeem (to withdraw from circulation) such virtual currency." An administrator "creates units of convertible virtual currency and sells those units to another person for real currency or its equivalent is engaged in transmission to another location" and becomes classified as a money transmitter; thus, FinCEN places more stringent regulations on administrations. 127

A Bitcoin exchanger is "a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency." Money transmitter classifies an exchange as "[a] person [who] accepts such decentralized convertible virtual currency from one person and transmits it to another person as part of the acceptance and transfer of currency, funds, or other value that substitutes for currency." A user is the typical Bitcoin enthusiast; someone who buys and sells goods and services through the means of virtual currency transactions. Under the money transmitter services categorization, a user "creates units of this convertible virtual currency and uses it to purchase real or virtual goods and services . . . and [is] not subject to regulation as a money transmitter."

^{123.} See Graf, supra note 6.

^{124.} See generally HAYEK, supra note 1, at 11 (discussing the importance of self-interest driven currency rather than government regulated currency).

^{125.} See generally Graf, supra note 6 (discussing Bitcoin's technological structure and the importance of verification to the system).

^{126.} Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99; see infra Part III.A.1 (discussing how FinCEN works to regulate bitcoin).

^{127.} Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99; see infra Part III.A.1 (explaining how FinCEN regulates bitcoins and determines standards applicable for money transmitter businesses).

^{128.} Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

^{129.} Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

^{130.} See Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

^{131.} Buterin, supra note 99; see Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

Bitcoin miners could fall under the definition of a user and an administrator. If miners sell their bitcoins, FinCEN regulates the miners as money transmitters, and technically requires the miners to register accordingly. However, one Bitcoin developer stated that miners may be exempt from registering as money transmitters if they "(a) exchange for fiat via a licensed bitcoin exchange, or (b) buy goods and services for bitcoins, staying inside the bitcoin economy." Typically, users sell bitcoins through a licensed Bitcoin exchange and the exchange's license covers both sides of the transaction. Miners can use an alternative method to avoid regulation under the FinCEN money transmitter business classification: miners may spend their earnings to purchase goods after they convert their bitcoins to United States dollars. Is

III. REGULATION OF BITCOIN

A. External Regulation: Using and Exchanging Bitcoins for Other Currencies

1. FinCEN and the Internal Revenue Service

FinCEN is a bureau of the United States Department of the Treasury that safeguards the financial system from illicit use and promotes national security "through the collection, analysis, and dissemination of financial intelligence and strategic use of financial authorities." FinCEN's regulations define real currency as "the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii]circulates and [iii]is customarily used and accepted as a medium of exchange in the country of issuance." In addition, FinCEN regulates money transmitter or service businesses, such as a business that accepts and

^{132.} See Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

^{133.} See Buterin, supra note 99; Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

^{134.} Buterin, supra note 99; Jeff Garzik, US Government Virtual Currency Regulations: Applications of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, REDDIT (Mar. 18, 2013), http://www.reddit.com/r/Bitcoin/comments/lak3ms/us_government_virtual_currency_regulations/.

^{135.} See Buterin, supra note 99; Garzik, supra note 134.

^{136.} See Buterin, supra note 99.

^{137.} What We Do, U.S. DEP'T TREASURY FINCEN ENFORCEMENT NETWORK, http://www.fincen.gov/aboutfincen/wwd/ (last visited Jan. 19, 2015). FinCEN exercises its governing power under the "Bank Secrecy Act," which is the nation's first comprehensive federal statute created to regulate money laundering and other financial crimes. *Id.* FinCEN and its regulatory powers and duties are outside the scope of this article. See http://www.fincen.gov/ for more information.

^{138.} Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, supra note 99.

converts bitcoins into money. ¹³⁹ In 2014, the Internal Revenue Service (IRS) distributed a notice explaining its regulation of specific types of bitcoin usage, such as money transmitter businesses. ¹⁴⁰ The IRS Notice 2014-21 refers to the FinCEN report for details about the types of currency and the particular regulation for each. ¹⁴¹ Businesses working with buying and selling bitcoins may have issues if they have not registered with FinCEN as a money service business—as businesses must comply with state regulations to avoid sanctions. ¹⁴²

2. Securities Exchange Commission

The Securities Exchange Commission (SEC) is an agency of the federal government that protects investors, facilitates capital formation, and maintains orderly, fair, and efficient markets. The SEC oversees securities exchanges, investment advisors, securities brokers and dealers, and mutual funds. The SEC securities registration and approval process ensures that investors receive important financial information. Currently, two American market Bitcoin investment vehicles, the Winklevoss Bitcoin Trust and the Bitcoin Investment Trust, have begun the SEC approval process; if the SEC approves these investment vehicles, then all investors could potentially have access. The Winklevoss Bitcoin Exchange Trade Fund (ETF) is the first of its kind filed with the SEC. SecondMarket's Bitcoin Investment Trust (BIT) seeks SEC approval to open to all investors; currently, only accredited investors can participate in these investments.

The goal of the proposed Bitcoin ETF is to provide exposure to Bitcoin assets and reflect Bitcoin volatility. ¹⁴⁹ To date, the SEC has taken over a year

^{139.} See generally 31 U.S.C. § 5330(d)(1) (2012) (explaining what types of business activities constitute the type of business FinCEN aims to regulate).

^{140.} I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf.

^{141.} Id.

^{142.} See id.; Buterin, supra note 99. State and federal regulations differ. See Brad Jacobsen & Fred Pena, What Every Lawyer Should Know About Bitcoins, 27 UTAH B.J. 40, 42 (July/August 2014). Some states regulate bitcoin businesses more heavily; the state may require money service business to register and get licensed and may impose sanctions for failure to comply. Id.

^{143.} See The Investor's Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation, U.S. SEC. & EXCHANGE COMMISSION, http://www.sec.gov/about/whatwe do.shtml#.VNJIrJ3F-So (last visited Jan. 30, 2015). The SEC provides all investors with access to specific basic facts about investments prior to buying and while holding the investments. *Id.*

^{144.} *Id*.

^{145.} See The Laws That Govern the Securities Industry, U.S. SEC. & EXCHANGE COMMISSION, http://www.sec.gov/about/laws.shtml (last visited Jan. 30, 2015).

^{146.} See Ullal, supra note 54; infra Part VI.B. Investors in Europe may invest in Coinfloor, a London based Bitcoin Exchange Trade Fund. Ullal, supra note 54.

^{147.} See Ullal, supra note 54; infra Part VI.B.2.

^{148.} See Ullal, supra note 54; infra Part VI.B.1.

^{149.} See Ullal, supra note 54.

to decide whether to approve the Winklevoss Bitcoin ETF.¹⁵⁰ If the SEC approves the Bitcoin ETF, an investor would purchase the daily value of Bitcoin.¹⁵¹ The ETF would trade on the NASDAQ Stock Market under the ticker COIN.¹⁵² The ETF would be similar to physically-backed commodities ETFs like the iShares Silver Trust and the SPDR Gold Shares.¹⁵³ The BIT is expected to list on the OTCQX Stock Market, and has already accumulated \$70 million in assets from technological entrepreneurs, family offices, and Wall Street professionals.¹⁵⁴

3. States

The classification of bitcoins and the legality of bitcoin transactions depends on where the user lives, who the user is, and what the user is doing with the bitcoins. Several states have created regulations governing Bitcoin, such as New York, Texas, and Maryland. 156

- 150. Rob Curran, *With a Bitcoin ETF, Risk Isn't Virtual*, WALL ST. J. (Sept. 7, 2014, 4:01 PM), http://online.wsj.com/articles/with-a-bitcoin-etf-risk-isn-t-virtual-1410120108?KEYWORDS=bitcoin% 20etf. The availability of bitcoin investment through the Winklevoss Bitcoin ETF is dependent upon SEC approval of the ETF—if the SEC does not approve the ETF, interested bitcoin investors will not be able to utilize the investment vehicle. *See generally* Winklevoss Bitcoin Trust CIK#: 0001579346, U.S. SEC. & EXCHANGE COMMISSION, http://www.sec.gov/cgi-bin/browse-edgar?CIK=0001579346&action=get company (last visited Mar. 15, 2015) (showing original filings of amended forms and registration documents).
- 151. See Penelope Lemov, Taking a Tax Bite Out of Bitcoin, GOVERNING (Jan. 16, 2014), http://www.governing.com/topics/finance/gov-bitcoin-tax-implications-states-localities.html.
- 152. See Ullal, supra note 54; see also Tom Lydon, The Bitcoin ETF You Haven't Heard About, ETF TRENDS (June 26, 2014, 2:28 PM), http://www.etftrends.com/2014/06/the-bitcoin-etf-you-havent-heard-about/. A ticker symbol is an arrangement of letters representing a particular security traded publicly or listed on an exchange. Ticker Symbol, INVESTOPEDIA, http://www.investopedia.com/terms/t/ticker symbol.asp (last visited Jan. 30, 2015).
- 153. See Tom Lydon, Winklevoss Bitcoin ETF Still Moving Through Regulatory Process, ETF TRENDS (Nov. 4, 2014, 2:46 PM), http://www.etftrends.com/2014/11/winklevoss-bitcoin-still-moving-through-regulatory-process/.
- 154. See Lydon, supra note 152. The OTCQX is a forum that offers the top tier of three marketplaces for companies that fulfill qualification criteria. See OTCQX, INVESTOPEDIA, http://www.investopedia.com/terms/o/otcqx.asp (last visited Jan. 30, 2015). The BIT is also comparable to the SPDR Gold Shares and the iShares Silver Trust—the BIT ensures "storage and safekeeping while focusing exclusively on a single asset." Lydon, supra note 152.
- 155. See Is Bitcoin Legal?, COINDESK (Aug. 19, 2014), http://www.coindesk.com/ information/is-bitcoin-legal/; see also supra Part II.C.1 (discussing the different classifications of Bitcoin users and associated regulations).
- 156. See Elijah Alper, Growing Bitcoin Regulations and Its Constituencies, DC BAR (Dec. 9, 2014), http://dcbarvoices.typepad.com/dcbar/2014/12/growing-bitcoin-regulations-and-its-constituencies.html? utm_source=Mondaq&utm_medium=syndication&utm_campaign=inter-article-link. California, New Mexico, and Kansas have also adopted a laissez-faire perspective regarding bitcoins. See States Differ on Need for Bitcoin Oversight, CBS DFW (Nov. 27, 2014), http://dfw.cbslocal.com/2014/11/27/states-differon-need-for-bitcoin-oversight/. New York has recently classified bitcoin as intangible property such that transactions will not face a sales tax. William Suberg, New York State: Bitcoin is 'Intangible Property', COINTELEGRAPH (Dec. 9, 2014, 10:39 AM), http://cointelegraph.com/news/113075/new-york-state-bitcoin-is-intangible-property-.

Texas was the first state to issue guidance on Bitcoin regulation.¹⁵⁷ Texas was also the first state to incorporate bitcoins into entertainment venues.¹⁵⁸ Texan vendors placed the nation's first Bitcoin ATM into a bar in Austin; this allows for customers to exchange bitcoins for cash rather than taking a Bitcoin user's paper money and converting it to bitcoins.¹⁵⁹ Texas has embraced bitcoins, and supports one of the world's most prevalent bitcoin economies.¹⁶⁰ Texas facilitates bitcoin economic growth by shielding bitcoins from burdensome regulation.¹⁶¹

The Texas Department of Banking issued a memorandum stating that it will not regulate bitcoin or any other digital currencies as legal money. ¹⁶² Instead, Texas views bitcoin as a "speculative investment," as stated by Texas Banking Commissioner, Charles Cooper. ¹⁶³ The department's assistant general counsel stated that bitcoin holdings within an individual's wallet are not a money transmission. ¹⁶⁴ In addition, as long as operators sell from an ATM's own Bitcoin wallet, or store bitcoins for a particular transaction or on an individual basis, the department will not qualify the transaction as a money transmission. ¹⁶⁵

Although Texas does not have a state income tax, the Texas Department of Banking regulates "certain financial transactions and licenses financial institutions." Third-party bitcoin exchangers conducting business in Texas or with Texas consumers should be aware of the state's scrutiny in its categorization of a money transmission business—Texas may require a bitcoin business conducting state regulated money exchanges to meet a minimum net worth requirement of \$500,000.

Further, states face the issue of sales taxes owed by Bitcoin users. ¹⁶⁸ Whenever Bitcoin users complete a transaction using bitcoins at a business that accepts bitcoins as a form of payment, the retailer is responsible for collecting sales tax in bitcoins at the time of the purchase, translating the value, and then remitting to the taxing authority in United States dollars. ¹⁶⁹

^{157.} See States Differ on Need for Bitcoin Oversight, supra note 156.

^{158.} See Rick Jervis, Bitcoin ATMs Come to the USA, USA TODAY (Feb. 20, 2014), http://www.usatoday.com/story/money/business/2014/02/19/bitcoin-atm-austin/5623387/.

^{159.} See id.

^{160.} See States Differ on Need for Bitcoin Oversight, supra note 156.

^{161.} See id.

^{162.} See Aman Batheja, Texas Takes First State Steps to Regulate Bitcoin, GOVERNING (Apr. 14, 2014), http://www.governing.com/news/headlines/tt-texas-regulates-bitcoin.html.

^{163.} Id.

^{164.} *Id*.

^{165.} See States Differ on Need for Bitcoin Oversight, supra note 156. The department's assistant general counsel advised that the transaction is more like a vending machine. Id.

^{166.} Batheja, supra note 162.

^{167.} *Id.* Mt. Gox, the world's leading Bitcoin exchange, has been caught in the face of fire in bankruptcy proceedings in U.S. federal court in Dallas, Texas because of its loss of more than \$400 million worth of bitcoins. *Id.*

^{168.} Lemov, supra note 151.

^{169.} Id.

Due to the volatility of bitcoins, it is critical for the retailer to collect the bitcoin sales tax on the day of the transaction. In addition, no public record of bitcoin purchases currently exists. Therefore, there is no practical way to search for evidence of transactions or for bitcoin assets, particularly after the date of the bitcoin purchase.

Increased awareness of the Bitcoin system and its ability to serve as currency, albeit in digital form, may increase business in "bitcoin-friendly" states. ¹⁷³ It is important to note that, in order for Bitcoin to be useful as a medium of exchange, people must be comfortable with accepting bitcoins in place of fiat currency to buy and sell goods and services that are commonplace and necessary for daily life. ¹⁷⁴

IV. How Is BITCOIN CLASSIFIED?

The United States has yet to clearly state whether Bitcoin users may use bitcoins as currency. Despite restrictive FinCEN and IRS regulations, no governmental entity has established coherent policies or regulations. The legal elucidation of digital currency, particularly bitcoin is relatively nonexistent. Therefore, the government cannot adopt digital currency at a federal level without extreme difficulty. Nevertheless, the "blockchain revolution" is occurring despite the lack of uniform governmental classifications. However, an inherent issue exists with the expansion and wide-spread use of bitcoins: privacy.

A. Property

In the United States, the IRS has classified bitcoin as personal property. 181 Some states, including Texas, have recognized bitcoin and made

^{170.} *Id*.

^{171.} Jon Alper, *Bitcoin Asset Protection*, ALPER LAW, http://www.alperlaw.com/asset-protection/bitcoin-asset-protection/in-florida/ (last visited Dec. 22, 2014).

^{172.} *Id*.

^{173.} Josic Media, *Will Individual States Classify Bitcoin as Currency?*, JOSIC, http://www.josic.com/will-individual-states-classify-bitcoins-as443-currency (last visited Dec. 31, 2014).

^{174.} See Mushkin, Sahid & Taub, supra note 103.

^{175.} See Media, supra note 173.

^{176.} See id.; see also supra Part III.A.1.

^{177.} See Mushkin, Sahid & Taub, supra note 103.

^{178.} See Media, supra note 173.

^{179.} Telephone Interview with George D. Greenberg, J.D., Solo Practitioner, Law Offices of George D. Greenberg (Dec. 23, 2014).

^{180.} See Karl Whelan, How Is Bitcoin Different from the Dollar?, FORBES (Nov. 19, 2013), http://www.forbes.com/sites/karlwhelan/2013/11/19/how-is-bitcoin-different-from-the-dollar/. Bitcoin users may face additional regulations with more government attention. *Id.*

^{181.} I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf.

it more accessible to users.¹⁸² Organizations such as the Texas Society of Certified Public Accountants (TSCPA) express a multitude of issues with the IRS classification of bitcoins as property.¹⁸³ In its letter, TSCPA suggests that the IRS, in the most ideal situation, should treat bitcoins as foreign currency; however, if the IRS does not reconsider its classification of bitcoin, the IRS should make a distinction between virtual currency usage for investment versus usage for business.¹⁸⁴

One of the issues the TSCPA stated is that regardless of whether the United States recognizes any currency other than the United States dollar, virtual currency "functions as a currency, is widely accepted in some cases as tender and is a fungible asset." As such, the organization stated that the sensible approach would be to refer to section 988 of the IRC. Section 988 provides for the treatment of foreign currency as ordinary income or loss, and as such, interest income or expense, respectively. Bitcoins could potentially fall under the "nonfunctional currency" definition and provision of section 988, which provides that "nonfunctional currency includes coin or currency, and nonfunctional currency denominated demand or time deposits." and nonfunctional currency denominated demand or time deposits."

However, personal opinions on the IRS classification differ; some practitioners and bitcoin investors believe that the property classification is beneficial because the bitcoin transaction is a trade of personal property rather than money. Other bitcoin policy makers disagree with the classification because it does not render bitcoin a legitimate form of accepted currency. Further, contrary to the TSCPA's opinion that bitcoin should be reclassified as nonfunctional currency, bitcoin is a fully functioning form of digital currency. 191

^{182.} See generally States Differ on Need for Bitcoin Oversight, supra note 156 (discussing differences in bitcoin regulation in states such as Texas and New York).

^{183.} Letter from Carol G. Warley, Chair Fed. Tax Policy Comm., Tex. Soc'y of Certified Pub. Accountants, to John A. Koskinen, I.R.S. Comm'r, Re: Comments in Response to Notice 2014-21 Virtual Currency Guidance, CHARITABLE PLAN. (Sept. 22, 2014), http://www.charitableplanning.com/cpc_2112931-1.bin.

^{184.} Id.

^{185.} *Id*.

^{186.} *Id*.

^{187.} Section 988: Treatment of Foreign Currency, CHARITABLE PLAN., https://www.charitable planning.com/document/498246 (last visited May 31, 2015); I.R.C. § 988(a)(1)(A), (a)(2) (2012).

^{188.} Section 988: Treatment of Foreign Currency, supra note 187; I.R.C. § 988(c)(1)(C)(i)(I)–(c)(1)(C)(ii).

^{189.} Telephone Interview with George D. Greenberg, supra note 179.

^{190.} Id.

^{191.} *Id*.

B. Currency or Commodity

If the federal government or state governments reclassify bitcoin as money, each entity will treat every transaction involving an exchange of bitcoins as an exchange transaction or as a taxable sale. This classification would require Bitcoin users to keep a record of each transaction and track the daily market variations in the price of the bitcoin compared to the price of the United States dollar. If users treat bitcoins as an "e-version of cash" for bitcoin exchanges, the tax treatment would be different than if bitcoins were used as property. However, bitcoin classification is very situational, speculative, and dependent on the person using the bitcoin—most people currently treat bitcoin as a commodity or a currency.

If the government provided clarity on how bitcoin fits into existing frameworks of regulation, more people could realize Bitcoin's significance as a system and as a unit of digital currency. Bitcoin will only become a respected alternative medium of exchange if people choose to trust the users and miners of bitcoin more than the United States government. 197

V. TAXES AND BITCOIN

A. IRS Taxation

On March 26, 2014, the IRS issued a notice addressing bitcoin and other virtual currencies. The "Virtual Currency Guidance" notice formally classified bitcoins as property for federal tax purposes. As such, "[g]eneral tax principles applicable to property transactions [also] apply to transactions using virtual currency." Therefore, the IRS will treat gains from selling and buying bitcoins like other capital gains. Bitcoins are considered a form

^{192.} See Joseph B. Darby III, *Property, Currency and Semantics Aside—My Bet Is on Bitcoin*, COGNOSCENTI (Apr. 4, 2014), http://cognoscenti.wbur.org/2014/04/04/i-r-s-bitcoin-joseph-b-darby.

^{193.} See generally id. (explaining Bitcoin users' burden of recording transactions and applicable tax issues with government classification of bitcoin as currency rather than property).

^{194.} See id.; see also infra Part V.A (discussing IRS tax treatment of bitcoins).

^{195.} See John Scianna, Texas: Future Headquarters of Bitcoin, BITCOIN MAG. (Sept. 26, 2014), http://bitcoinmagazine.com/16817/texas-headquarters-of-bitcoin/. Bitcoin has been and could also be classified as a security. See Mushkin, Sahid & Taub, supra note 103; see also Sec. & Exch. Comm'n v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at *2 (E.D. Tex. Aug. 6, 2013) (mem. op.) (holding that the bitcoin investments met the definition of an investment contact; thus, the court decided bitcoin investments are securities).

^{196.} See Scianna, supra note 195.

^{197.} See Whelan, supra note 180.

^{198.} I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf.

^{199.} Id.

^{200.} Jacobsen & Pena, supra note 142, at 42.

^{201.} Id.

of actual income; thus, if users convert bitcoins to cash, then users must declare bitcoins as income on a tax return.²⁰²

While the notice may provide certainty for investors, it imposes income tax liability for users who transact on a more personal, day-to-day basis.²⁰³ Bitcoin users may avoid taxes by not claiming all purchases made by bitcoin transactions.²⁰⁴ However, the IRS classifies the transaction of using bitcoins to purchase assets or services as a taxable event and requires the payor to determine capital gain on the bitcoins used to make the purchase.²⁰⁵

The IRS notice's significance is that the IRS will treat bitcoin investors as stock investors. ²⁰⁶ Capital gains will differ and generate taxes according to the holding period. ²⁰⁷ An example of the taxes based on the holding period is the difference in bitcoins held for more than one year and those held for less than one year. ²⁰⁸ If held for more than one year, the bitcoins qualify for long-term capital gains. ²⁰⁹ If users hold bitcoins for less than one year, the IRS treats the bitcoins as ordinary income and taxes them accordingly. ²¹⁰

If the fair market value of property received in exchange for virtual currency exceeds the taxpayer's adjusted basis of the virtual currency, the taxpayer has taxable gain. The taxpayer has a loss if the fair market value of the property received is less than the adjusted basis of the virtual currency.²¹¹

Taxes differ slightly depending on the type of bitcoin used: for miners, "when a taxpayer successfully 'mines' virtual currency, the fair market value of the virtual currency as of the date of receipt is includible in gross income." However, there are other considerations for taxes based on bitcoin use, such as payments made using virtual currency: "A payment made using virtual currency is subject to information reporting to the same extent as any other payment made in property." In this case, the IRS requires the person to report the payment to the IRS and to the payee. If the particular user and taxpayer makes or takes a delivery of a section 988 transaction, the

^{202.} See Greenberg, supra note 10.

^{203.} See generally Richard Rubin & Carter Dougherty, Bitcoin Is Property Not Currency in Tax System, IRS Says, BLOOMBERG (Mar. 25, 2014), http://www.bloomberg.com/news/articles/2014-03-25/bitcoin-is-property-not-currency-in-tax-system-irs-says.html (explaining the difficulties associated with tax liability for different Bitcoin users).

^{204.} See Eleazar David Melendez, Bitcoin Celebrated As Way To Avoid Taxes, HUFFINGTON POST (Apr. 16, 2013, 3:24 PM), http://www.huffingtonpost.com/2013/04/16/bitcoin-taxes_n_3093182.html.

^{205.} Jacobsen & Pena, supra note 142, at 42.

^{206.} See Rubin & Dougherty, supra note 203.

^{207.} Jacobsen & Pena, supra note 142, at 42.

^{208.} Id.

^{209.} Id.

^{210.} Id

^{211.} I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf.

^{212.} *Id*.

^{213.} Id.

^{214.} Id.

IRS will treat any gain or loss as if the taxpayer sold the instrument—at its fair market value—and, thus, recognize the gain or loss as a sale for tax purposes.²¹⁵

If the IRS were to classify bitcoins as currency, for bitcoin exchange purposes, then it would assess taxes in a separate manner.²¹⁶ Any income or gain is taxable; however, losses may be nondeductible depending on whether the bitcoins are used in personal transactions or whether they are used for business purposes.²¹⁷ Using digital currency as personal currency would be extremely difficult for users.²¹⁸

In addition, if the IRS were to recognize bitcoins as foreign currency, users should be aware of the "988 hedging transaction." A hedging transaction is any transaction "entered into by the taxpayer primarily to manage risk of currency fluctuations with respect to property which is held or to be held by the taxpayer, or to manage risk of currency fluctuations . . . and [is] identified by . . . the taxpayer as being a 988 hedging transaction."²²⁰ The Internal Revenue Code (IRC) limits a hedging transaction; the rules applicable to hedging transactions do not apply to an individual's personal section 988 transaction.²²¹ The IRC defines a personal transaction as "any transaction entered into by an individual, except that such term shall not include any transaction to the extent that expenses properly allocable to such transaction meet the requirements of section 162... or section 212."222 However, there is an exception to the limitation: if personal transactions are comprised of "nonfunctional currency...disposed of by an individual in any transaction, and such transaction is a personal transaction, no gain shall be recognized . . . by reason of changes in exchange rates after such currency was acquired by such individual and before such disposition."²²³ The gain recognized from the transaction cannot exceed \$200.²²⁴

In addition, the IRS will assess taxes if bitcoins are placed into a trust because the trust is a separate taxable entity from the settlor's taxable income. Thus, the trust reports its own income, and the trustee must fill

^{215.} Section 988: Treatment of Certain Foreign Currency, supra note 187; I.R.C. § 988(c)(5) (2012).

^{216.} See Darby, supra note 192.

^{217.} See id. If bitcoins are used for personal transactions, the loss may be nondeductible; if bitcoins are used for business purposes, the loss may be deductible. Id.

^{218.} See id.

^{219.} See I.R.C. § 988(d)(1) (2012).

^{220.} Id. § 988(d)(2).

^{221.} See id. § 988(e)(1).

^{222.} Id. § 988(e)(3).

^{223.} Id. § 988(e)(2).

^{224.} See id. § 988(e)(2)(B).

^{225.} William Perez, Estates & Trusts, ABOUT MONEY, http://taxes.about.com/od/taxglossary/qt/ Estates Trusts.htm (last visited Oct. 14, 2014).

out an income tax return on Form 1041.²²⁶ If the trust distributes income to beneficiaries, the trustee must report it on Form K-1.²²⁷

VI. INVESTMENT IN BITCOIN

A. Risk/Benefit Analysis of Bitcoin

Due to Bitcoin's open source and free software, millions of people invest in and use bitcoins for numerous purposes. Bitcoin's growth, since its creation in 2009, alludes to its current potential. As one monetary theorist noted, Bitcoin is distinctly capable of being adapted and updated on an ongoing basis. Its programming contributors, users, and even top critics all work relentlessly (at high levels of relevant technical sophistication) to imagine, discuss, weigh, anticipate, and address constellations of system threats, major and minor, real and theorized.

However, investors do face inherent risks: first, another digital currency might surpass bitcoin; second, Bitcoin users may find a weakness in the encryption used to transact with bitcoins; third, the federal government or any state government may ban bitcoin; fourth, an unfixable flaw could be discovered in the Bitcoin protocol.²³¹ However, the real issues are that so many people doubt the legitimate use of bitcoins, the value of bitcoins, and the stability of the Bitcoin system.²³² Many people fear the unknown because they may not understand the decentralized and technological composition of Bitcoin.²³³

Notwithstanding the risks associated with Bitcoin investment, Bitcoin remains the predominant digital asset in use; no flaws have been found in the Bitcoin protocol, and any encryption issues found can be resolved by using

^{226.} Id.

^{227.} Id

^{228.} Graf, *supra* note 6. Some commentators claim that the reason for Bitcoin's widespread success and use is because Bitcoin does not rely on or entrust any third party for exchange purposes. *See id.*; Nakamoto, *supra* note 27, at 3.

^{229.} See Who Created Bitcoin?, BITCOINMINER (Mar. 29, 2014), http://bitcoinminer.net/who-created -bitcoin/. From 2009 to February 2015, Bitcoin users have made almost 60,000,000 transactions using bitcoins. See Total Number of Transactions, BLOCKCHAIN.INFO, https://blockchain.info/charts/n-transactions-total?timespan=all&showDataPoints=false&daysAverageString=1&show_header=true&scale=0&address= (last visited Feb. 4, 2015).

^{230.} Konrad S. Graf, *On the Origins of Bitcoin: Stages of Monetary Evolution*, KONRAD GRAF 12 (Nov. 3, 2013), http://konradsgraf.com/storage/On%20the%20Origins%20of%20Bitcoin%20Graf% 2003.11.13.pdf.

^{231.} See What Is Bitcoin?, BITSTAMP, https://www.bitstamp.net/help/what-is-bitcoin/ (last visited Jan. 30, 2015).

^{232.} See Cameron Keng, Bitcoin Is Not Anonymous and Is Always Taxable, FORBES (Dec. 16, 2013), http://www.forbes.com/sites/cameronkeng/2013/12/16/bitcoin-is-not-anonymous-is-always-taxable/.

^{233.} See generally id. (explaining common reasons why people question the legitimacy and composition of bitcoins).

different encryption algorithms.²³⁴ Additionally, an outright ban on bitcoin is unlikely to occur, as it would place people at an economic disadvantage.²³⁵ The same monetary theorist noted above summarized the strength of Bitcoin and reiterates the significance of the blockchain: "Moreover, following even a highly hypothetical catastrophic breakdown, a revised Bitcoin network could potentially be relaunched from the existing blockchain, starting from the last-verified constellation of ownership."²³⁶

Regardless of fear of the unknown, Bitcoin Venture Capital (VC) Investments in 2014 greatly increased.²³⁷ In 2014, more people invested in larger quantities of bitcoins than ever before.²³⁸ The Bitcoin VC Investments currently stands at \$362.26 million dollars in United States fiat currency.²³⁹ This amount is an almost 300% increase from the amount pledged in 2013.²⁴⁰ Coinbase, the world's most popular Bitcoin wallet storage and payment processing company, and other universal companies received the largest VC funding distributions.²⁴¹ In addition, the number of merchants accepting bitcoins worldwide increased to 75,000.²⁴² Further, bitcoin consumer activity has rapidly increased; more people have created wallets, used unique bitcoin addresses for transactions, and conducted bitcoin transactions in 2014.²⁴³ Bitcoin has the potential to become a widely-recognized medium for the purposes of bartering.²⁴⁴

B. Investment Accounts for Bitcoins

Investors and estate planning attorneys should be cognizant of other options, such as "alternative investments" in bitcoin. While retirement accounts and other means of investing digital assets are outside the scope of this article, ETFs may be worthy investment vehicles for bitcoin estate

^{234.} See What Is Bitcoin?, supra note 231.

^{235.} Id.

^{236.} Graf, supra note 230, at 8.

^{237.} See William Suberg, Bitcoin Review 2014 Part II: VC Investment and Regulatory Environment, COINTELEGRAPH (Dec. 27, 2014, 6:15 PM), http://cointelegraph.com/news/113202/bitcoin-review-2014-part-ii-vc-investment-and-regulatory-environment.

^{238.} See generally William Suberg, Bitcoin Review 2014 Part I: Price and Commercial Activity, COINTELEGRAPH (Dec. 26, 2014, 5:54 PM), http://cointelegraph.com/news/113195/bitcoin-review-2014-part-i-price-and-commerical-activity (explaining Bitcoin investment trends in 2014 and previous years).

^{239.} See Suberg, supra note 237.

^{240.} See id.

^{241.} See id.

^{242.} See Suberg, supra note 238. In 2014, companies like Overstock.com, Expedia, Dell, Dish, and Paypal joined as Bitcoin-accepting merchants. Id.

^{243.} See id.

^{244.} See Keng, supra note 232.

^{245.} See Joy Bitcoin, How to Get Bitcoins into Your Retirement Account, BITCOIN TRIBUTE (June 9, 2014), http://yourfreebitcoin.blogspot.com/2014/06/how-to-get-bitcoins-into-your.html.

planning and asset protection purposes.²⁴⁶ Currently, because the SEC has not approved a bitcoin investment vehicle, there is no method for buying bitcoins, such as a qualified investment account.²⁴⁷ However, investors may designate an investment or brokerage account to buy individual bitcoins until the SEC approves a bitcoin investment vehicle.²⁴⁸

1. Bitcoin Investment Trust

The BIT is a trust invested exclusively in bitcoin.²⁴⁹ The BIT is structured as an open-ended and private grantor trust, created pursuant to the Securities Act of 1933 that derives its value exclusively from the price of bitcoin.²⁵⁰ It is a simple investment tool, designed for bitcoin investors who are looking for exposure to bitcoin but do not want to go through the trouble of buying and safely storing large amounts of bitcoins for investment purposes.²⁵¹ The BIT provides a traditional investment solution that reflects bitcoin's price performance.²⁵²

Bitcoin users face multiple issues with directly owning bitcoin; the BIT is designed to resolve those issues.²⁵³ First, many users take issue with the lack of safekeeping associated with bitcoin storage; users are perpetually at risk of being hacked.²⁵⁴ The BIT employs security protocols to store bitcoins for BIT shareholders.²⁵⁵ Second, users may be weary of the volatility of bitcoins, particularly for investment purposes.²⁵⁶ The BIT is able to somewhat stabilize the market view of bitcoins by offering a weighted price.²⁵⁷ The BIT offers a volume weighted average price that accurately reflects the market view; thus, investors can buy shares at a set price without

^{246.} See id. More information about investment portfolios and hedge funds may be necessary when discussing a Bitcoin investor's financial planning for the future. See id.

^{247.} See id.; supra Part III.A.2.

^{248.} See Bitcoin, supra note 245; see also Bitcoin Exchange Guide, BITCOIN EXCHANGE GUIDE, http://bitcoinexchangeguide.com/ (last visited Jan. 29, 2015) (listing major bitcoin exchanges with reputability ratings, trust levels, and types of exchanges available through the particular exchange).

^{249.} Bitcoin Investment Trust, BITCOIN INVESTMENT TR., http://www.bitcointrust.co/ (last visited Jan. 15, 2015).

^{250.} *Id.*; see Lydon, supra note 152. A grantor trust—in the context of a trust set up for bitcoin investment—is a trust initiated by the grantor, or the person with access to bitcoins, for the purposes of private wealth accumulation and preservation, as well as asset protection. See generally Grantor Trust-What Is It?, ULTRA TRUST, http://www.ultratrust.com/grantor-trust.html (last visited Jan. 30, 2015) (explaining the creation and purpose of a grantor trust).

^{251.} Bitcoin Investment Trust, supra note 249.

^{252.} Bitcoin Overview, supra note 4.

^{253.} Bitcoin Investment Trust, supra note 249.

^{254.} See id.

^{255.} Id.

^{256.} See generally Peter Cohan, Is Bitcoin An Investment or A Cult?, FORBES (Feb. 26, 2014), http://www.forbes.com/sites/petercohan/2014/02/26/is-bitcoin-an-investment-or-a-cult/ (discussing the volatility of bitcoins and the reasons why people choose to invest and refrain from investing in digital currency).

^{257.} Bitcoin Investment Trust, supra note 249.

having to transact with unregulated entities in an illiquid market.²⁵⁸ The weighted average price is made possible by the BIT's Authorized Participant, its relationship with major bitcoin exchanges, and its large private pools of bitcoins.²⁵⁹

The BIT establishes set prices to ease the minds of weary investors. The BIT addition, the BIT addresses investors' auditing concerns. The BIT facilitates the investment of bitcoin by means of investment in a security. Nonetheless, investors should know the related limitations of the BIT: classification and auditing standards for bitcoin have not been implemented. Last, the BIT will also be qualified for "investment for institutions, certain IRAs and other types of brokerage accounts" for accredited investors.

Investors must subscribe to the BIT through a "private placement memorandum and exclusively by accredited investors," because the BIT is an unregistered and private investment vehicle. In addition, the investment minimum is \$25,000. The BIT is not subject to the regulatory requirements affecting mutual funds or exchange traded funds. Therefore, the BIT is not required to provide investors with specific "periodic and standardized pricing and valuation information."

While any investment in bitcoin is highly speculative, the BIT proclaims to provide accredited investors with a portion of the portfolio of bitcoins. ²⁶⁹ Also, the BIT touts being a titled investment vehicle that is functionally similar to a private fund but modeled on the SPDR Gold ETF. ²⁷⁰ As such, the BIT allows for ownership "titled in the investor's name and evidenced by shares of traditional private securities, making it more familiar to financial and tax advisors, and easily transferred to beneficiaries under estate law."

Many entities, such as registered investment advisors, are interested in the BIT because the Bitcoin ETF does not have to be placed on traditional brokerage statements.²⁷² Currently, BIT investors may not sell their

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258. See Lydon, supra note 153.
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^{259.} Id.

^{260.} See Bitcoin Investment Trust, supra note 249.

^{261.} See id.

^{262.} Id.

^{263.} See id.

^{264.} Id.

^{265.} Bitcoin, supra note 245.

^{266.} See Bitcoin Investment Trust, supra note 249.

^{267.} See Bitcoin, supra note 245.

^{268.} See id.

^{269.} See id. The BIT has six named service providers, including Delaware Trust (FKA CSC) as the Delaware Statutory Trustee and SecondMarket, Inc. as the Custodian, Administrator, Distributor, and Marketplace and Authorized Participant. Fund Description, BITCOIN INVESTMENT TR., http://bitcointrust.wpengine.netdna-cdn.com/wp-content/uploads/2014/12/Fact-Sheet Dec.pdf (last visited Jan. 19, 2015).

^{270.} Fund Description, supra note 269.

^{271.} Id.

^{272.} See Lydon, supra note 153.

investment for at least one year.²⁷³ However, in the future, if the SEC approves the BIT, the average investor will potentially be able to access the BIT, on a public market, and buy a bitcoin investment vehicle.²⁷⁴

2. Bitcoin Exchange Trade Fund

The Bitcoin ETF is also structured as a grantor trust.²⁷⁵ The ETF is a relatively new and sporadically regulated asset class; thus, investors face risks unique to bitcoin, such as volatility.²⁷⁶ However, the infrastructure of Bitcoin and its underlying protocol supports future performance of Bitcoin.²⁷⁷ The decentralized nature and alleged stability of the Bitcoin system renders bitcoin prices stable.²⁷⁸ As such, Bitcoin ETF investors are investing in bitcoin performance, not in a bitcoin company.²⁷⁹

The Winklevoss brothers have agreed to classify bitcoins in the ETF as a capital asset. This would mean that the taxes related to bitcoins would be lower than ordinary income taxes; however, it would also mean that Bitcoin users may "only deduct losses against ordinary income up to \$3,000." If the IRS considers bitcoins as a capital asset, "long-term gains and losses would be subject to preferential capital gains rates (23.8 percent for high-income taxpayers)." 282

The ETF trust's sponsor, Math-Based Asset Services LLC, will track bitcoin prices based on "qualified bitcoin exchange transaction data . . . over a trailing two-hour period." In addition, the Winklevoss brothers have introduced a new bitcoin index; the Winkdex; it will be used to price the assets' value held by the Winklevoss Bitcoin ETF. Winkdex will use data from the top three qualified and active United States dollar denominated bitcoin exchanges to provide a blended price for bitcoins. 285

- 273. See Bitcoin, supra note 245.
- 274. See id.
- 275. See Lydon, supra note 153.

^{276.} See Cinthia Murphy, Winklevoss Bros: Beware Bitcoin ETF Risks, ETF (Nov. 18, 2014), http://www.etf.com/sections/features/23846-winklevoss-bros-beware-bitcoin-etf-risks.html/page/0/1? showall=&fullart=1&no paging=1.

^{277.} See id.

^{278.} See id. Bitcoin's price has remained stable even after disastrous events, such as the Mt. Gox collapse. Id.

^{279.} See id.

^{280.} See Lemov, supra note 151.

^{281.} Id.

^{282.} Howard Gleckman, *Taxing Bitcoin: IRS Review Has Big Implications for Investors in Virtual Currency*, FORBES (Jan. 7, 2014, 3:38 PM), http://www.forbes.com/sites/beltway/2014/01/07/taxing-bitcoin/.

^{283.} Lydon, supra note 153.

^{284.} Id.

^{285.} About, WINKDEX, https://winkdex.com/about (last visited Jan. 19, 2015); Formula, WINKDEX, https://winkdex.com/formula (last visited Jan. 19, 2015).

There are numerous reasons for investing in the Bitcoin ETF: investors and funds may wish to gain exposure to the bitcoin asset class—but not hold bitcoins directly—or investors may not want to purchase bitcoins from a foreign and unregulated bitcoin exchange. However, investors should know the significance of bitcoin's similarity to a commodity, such as precious metal. First, there is no rate of return for bitcoin like there is for other currency ETFs. Second, investors will be able to trade shares in the Bitcoin ETF because the NASDAQ will include the ETF.

The Winklevoss brothers designed the ETF to help solve issues with directly purchasing bitcoins and security.²⁹⁰ The ETF would provide the means, and end, to secure bitcoin investments.²⁹¹ In addition, if the SEC approves the ETF, more regulators may provide additional guidance on bitcoin classification and investments.²⁹²

VII. PLANNING FOR THE FUTURE WITH DIGITAL CURRENCY

A. Trusting Your Digital Assets

1. Valuation of Bitcoins

The Bitcoin economy has no notion of redeeming bitcoins in any significant way. Bitcoin, as a unit, "has no use value, only exchange value," and as such, it has no intrinsic value other than the going price at the moment investors exchange it. Thus, bitcoins are always in a bubble because the price of the digital assets dislodge from their fundamental value, and users' expectations about bitcoin prices outpace possible returns bitcoins can make on its own. Bitcoin value, as a currency and medium of digital exchange, is maintained by both its users and internal operational limitations on the quantity of bitcoins issued at large.

^{286.} See Murphy, supra note 276.

^{287.} See id.

^{288.} See id.

^{289.} See id.

^{290.} See Lydon, supra note 76.

^{291.} See generally id. (explaining the Winklevoss brothers' opinion of the Bitcoin ETF and how it would be similar to an investment in a precious metal ETF).

^{292.} See id.

^{293.} See Buterin, supra note 99.

^{294.} See Stephen Kinsella, Stephen Kinsella: Once Bitten Twice Shy, So Stay Away from Ponzi-Like Bitcoins, INDEPENDENT.IE (Nov. 19, 2013), http://www.independent.ie/opinion/columnists/stephen-kinsella-once-bitten-twice-shy-so-stay-away-from-ponzilike-bitcoins-29764982.html.

^{295.} See id

^{296.} See generally Lawrence Trautman, Virtual Currencies Bitcoin & What Now After Liberty Reserve, Silk Road, and Mt. Gox?, 20 RICH. J.L. & TECH. 13, 49, 85 (2014), available at http://jolt.richmond.edu/v20i4/article13.pdf (explaining that bitcoin's value is derived from users transacting with bitcoin and the finite number of bitcoins; once generated bitcoins reach the finite number, their supply is fixed and their value is expected to increase).

For tax purposes, the fair market value of bitcoin is determined in United States dollars.²⁹⁷ Taxpayers are required to calculate the fair market value, in United States dollars, of the virtual currency as of the date of receipt or payment.²⁹⁸ If the virtual currency is listed on an exchange with an exchange rate established by the market's supply and demand, the virtual currency's fair market value is determined by converting the currency into United States dollars (or into another real currency that can be converted into United States dollars) at the exchange rate, in a reasonable and consistently applied manner.²⁹⁹

Because Bitcoin is a peer-to-peer network that only works when there is a demand for bitcoins, daily bitcoin fluctuation depends on the supply and demand of bitcoins. Therefore, it is difficult to pinpoint a specific value for bitcoins, though one particular site displays a Bitcoin Price Index Chart. The chart indicates that, from January 1, 2015 to February 1, 2015, the price of bitcoin fluctuated from \$312.92 to \$226.73. On February 4, 2015, the price varied from the day's open of \$226.73 to \$227.96 and back to \$227.40. On February 4, 2015, the price varied from the day's open of \$226.73 to \$227.96 and back to \$227.40.

2. Options for Estate Planning with Bitcoins

Regardless of bitcoin's volatility in market value, bitcoins should be managed as any other asset; thus, they must be considered for estate planning purposes.³⁰⁴ Currently, the Bitcoin system does not support a user designating a beneficiary or a power of attorney on the user's account, or joint ownership of bitcoins.³⁰⁵ Therefore, bitcoin investors must make their digital assets a part of their estate plan in order to allow others to access their assets.³⁰⁶ There are several options for consideration, particularly if the bitcoin investor is not heavily invested in bitcoin, or does not have a large amount of bitcoins saved.³⁰⁷ With any option, the investors and involved

^{297.} I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, available at www.irs.gov/pub/irs-drop/n-14-21.pdf.

^{298.} See id.

^{299.} See id.

^{300.} See Trautman, supra note 296, at 85.

^{301.} Bitcoin Price Index Chart, COINDESK, http://www.coindesk.com/price/ (last visited Feb. 4, 2015).

^{302.} Id.

^{303.} Id.

^{304.} See Bitcoins and Estate Planning: Bequeathing Cryptocurrency, EST. PLAN. MASS. (Mar. 5, 2014), http://www.estateplanninginmassachusetts.com/2014/03/bitcoins-and-estate-planning-bequeath ing-cryptocurrency/.

^{305.} See Greenberg, supra note 10.

^{306.} See Bitcoins and Estate Planning: Bequeathing Cryptocurrency, supra note 304. Security measures prevent access to bitcoin assets by any person other than the Bitcoin user or persons with a copy of the user's Bitcoin wallet. *Id.*

^{307.} See generally id. (discussing estate planning options for Bitcoin users outside the common estate planning tools, such as placing assets into a trust).

parties must protect and secure the investors' Bitcoin wallet for the transaction to be effective. 308

Investors may choose to make a copy of their wallet and provide access to the wallet to designated persons.³⁰⁹ Investors have the option of sharing their entire wallet with the chosen beneficiary rather than just a specific address.³¹⁰ The inherent risk with this option is that the beneficiary would have complete access to (and potential control over) the investor's wallet.³¹¹

Investors could decide that unconditional access to their wallet is not preferred for security purposes; thus, they may choose to use an "M-of-N Transaction" in which investors use multiple signatures to send transactions as a means of added security. This type of transaction necessarily includes three parties: the investor, the intended beneficiary, and a third party. Two of the three parties must sign the transaction, and upon the investor's death, the third party and the beneficiary would both need to sign to complete the transaction. Some investors prefer a multiple signature transaction because the beneficiary would not have access to the investor's entire wallet—only the particular transaction could be accessed.

Another option is referred to as the "Dead Man's Switch."³¹⁶ After an investor's death, a computer server can sign off on the transaction by using its own key.³¹⁷ This transaction works in the following manner: The server may confirm the investor's death by accessing the investor's death certificate or by periodically sending the user an email link.³¹⁸ Once the server confirms the investor's death, the server will sign the transaction and transfer bitcoins to the intended beneficiary.³¹⁹ The issue with this option is that the server could shut down permanently if the computer loses contact with the beneficiary or has any reason to suspect fraud.³²⁰

^{308.} See id.

^{309.} See id. The bitcoin investor gives the beneficiary unconditional access to his or her wallet. Id.

^{310.} Tim Sampson, What Happens to Your Bitcoins When You Die?, DAILY DOT (May 14, 2013), http://www.dailydot.com/business/what-happens-bitcoin-when-you-die/.

^{311.} See generally id. (discussing that the beneficiary would have access to the wallet before the investor died, creating wallet vulnerability to a possible security breach).

^{312.} See Bitcoins and Estate Planning: Bequeathing Cryptocurrency, supra note 304; see also infra Part IX.A (discussing a wallet service company, Coinbase, which allows users to utilize multiple signatures). An "M-of-N transaction" would allow "a certain number of people . . . to sign off on a bitcoin transaction (N), but [requires] a set number of people less than N (M) . . . for the transaction to take place." Sampson, supra note 310.

^{313.} See Bitcoins and Estate Planning: Bequeathing Cryptocurrency, supra note 304.

^{314.} See id.

^{315.} See id. In addition, beneficiaries must keep track of their own keys for the specific addresses left to them by the investor. See Sampson, supra note 310.

^{316.} Bitcoins and Estate Planning: Bequeathing Cryptocurrency, supra note 304.

^{317.} See id.

^{318.} See id.

^{319.} See id.

^{320.} Sampson, supra note 310.

Investors could also utilize a sharing scheme, which is similar to wallet sharing in the sense that it requires investors to trust their beneficiary. The investor splits the wallet and its key into various parts, and these parts must be brought together in order to complete and approve a transaction to transfer bitcoins from the investor to the beneficiary. This option would allow investors to sprinkle responsibility to multiple people they trust, like family members or spouses; thus, there is less opportunity for fraud but more opportunity for human error, such as one beneficiary misplacing the wallet piece, thereby rendering the wallet valueless. 323

Additionally, because the IRS classified bitcoins as personal property, investors could simply assign their property to solve any estate planning issues.³²⁴ The IRS will apply a federal gift tax because the user made a completed gratuitous transfer; the user parted with dominion and control of any interest in the bitcoin property and cannot change the property's disposition for any reason.³²⁵ If Bitcoin users do not possess a large quantity of bitcoins, they may want to simply leave the Bitcoin wallet, the private key to the wallet, and instructions on how to access and use the bitcoins to a designated person or family member.³²⁶

B. Trusting Placing Your Bitcoins into a Trust

1. Trusts Generally

If the goal of bitcoin investors is wealth accumulation, rather than day-to-day transactions, investors should consider protecting their bitcoin assets within the individual estate once they have initiated a method for wealth accumulation (such as investing in an alternative investment vehicle).³²⁷ Trusts allow the investor to avoid both probate court and a public disclosure

^{321.} *Id.* Some investors within the Bitcoin community may prefer this estate planning option over others listed due to the difficult technical nature of the sharing scheme. *See id.*

^{322.} *Id*.

^{323.} See id.

^{324.} See Telephone Interview with George D. Greenberg, supra note 179; see also GERRY W. BEYER, TEXAS TRUST LAW CASES AND MATERIALS 61 (2d ed. 2010) (explaining that the settlor's capacity required to construct an *inter vivos* trust is typically the same capacity necessary to make an outright gift).

^{325.} See generally John Greuner, Texas Trusts (Revocable & Irrevocable), GREUNER BLOG, http://www.greunerblog.estates-trusts.com/estate-planning-library/trusts/ (last visited Jan. 30, 2015) (discussing the creation of specific types of trusts and the taxes related to those trusts and to completed gifts).

^{326.} See generally Telephone Interview with George D. Greenberg, supra note 179 (explaining the importance of the user giving thorough instructions on how to handle the bitcoins). The designated person or family member could convert the bitcoins to United States dollars and send those dollars to a bank account. Id.

^{327.} See generally Wright, supra note 93 (discussing the legal issues virtual currencies create for estate planning attorneys and fiduciaries acting on behalf of Bitcoin users).

of bitcoin assets in the public records.³²⁸ As previously stated, the IRS has classified bitcoins as property; thus, owners may place bitcoins into the corpus of a trust.³²⁹ An objective of setting up a trust for asset protection is to shield the settlor's assets from the claims of the beneficiary's creditors or from the beneficiary's own personal overspending.³³⁰

A trust is a taxable entity, "separate from the grantor, trustee, and beneficiary." The trust is subject to income tax, but is generally not taxed if it distributes all its income from the year or fails to meet the requirement of distribution of the year's income. 332

The settlor of the trust has the ability to "sprinkle" income and principal into separate trusts.³³³ This may be appealing to some Bitcoin users, because the user could separate assets and not place all of the bitcoins into one trust.³³⁴ However, sprinkling may also be unappealing because failure to treat the trusts separately will cause them to consolidate into a single trust.³³⁵

A trust may gain additional assets from any source.³³⁶ Therefore, a user is able to provide more bitcoins or additional digital assets to the trust.³³⁷ Whatever contributions the settlor makes to the trust, the settlor must fund the trust.³³⁸ To fund the trust, the settlor must transfer the title of the settlor's assets from the settlor's name to the name of the trust.³³⁹ Bitcoin investors must transfer title to their wallet—and bitcoins within the wallet—by

^{328.} See generally Greuner, supra note 325 (explaining the benefits of trusts for purposes of asset protection and privacy).

^{329.} See Types of Trusts, LIVING TR. NETWORK, livingtrustnetwork.com/estate-planning-center/revocable-living-trust/types-of-trusts.html (last visited Sept. 20, 2014).

^{330.} See Duncan E. Osborne & Mark E. Osborne, Asset Protection Trust Planning, SU002 ALI-CLE 1 (Apr. 17–19, 2013).

^{331. 1} Am. Jur. Legal Forms 2d: Federal Tax Guide to Legal Forms $\it Trusts$ and $\it Estates$ § 3.2 (2014).

^{332.} Id.

^{333.} *Id.* § 3.3.

^{334.} See generally id. (discussing how sprinkling enables users to place income into separate trusts).

^{335.} See generally id. (explaining the two tests to determine whether the separate trusts will be treated as one: "(1) the trusts have substantially the same grantor or grantors and substantially the same primary beneficiary or beneficiaries; and (2) a principal purpose of the trusts is the avoidance of federal income tax.").

^{336.} TEX. PROP. CODE ANN. § 113.004 (West 2013).

^{337.} See id.

^{338.} Julie Garber, *What Does it Mean to Fund a Trust?*, ABOUT MONEY, http://wills.about.com/od/howtofundatrust/a/whatisfunding.htm (last visited Oct. 14, 2014).

^{339.} See Understanding Funding Your Living Trust, EST. PLAN., http://www.estateplanning.com/Understanding-Funding-Your-Living-Trust/ (last visited Dec. 29, 2014). The term "settlor" means a person who creates the trust or contributes property to a trustee for purposes of creating a trust. See TEX. PROP. CODE ANN. § 111.004(14) (West 2013); see also Julie Garber, Basic Estate Planning: What's the Difference Between a Grantor, Settlor, Trustmaker and Trustor?, ABOUT MONEY, http://wills.about.com/b/2008/10/03/basic-estate-planning-whats-the-difference-between-a-grantor-settlor-trustmaker-and-trustor.htm (last visited Jan. 30, 2015) (explaining the different terms that refer to the person who creates and initially funds the trust: "settlor/investor," "grantor," "trustmaker," or "trustor").

assigning the bitcoins to the trustee as personal property.³⁴⁰ If the investor/settlor wants to retain the title of trustee, the investor/settlor would name himself as trustee.³⁴¹ The investor may value retaining the title of trustee because the investor may not trust an attorney or other person as the trustee; further, the investor has knowledge of the Bitcoin system and could continue to buy and sell bitcoins to grow the trust.³⁴²

2. Types of Trusts

a. Spendthrift Trust

One estate planning method for asset protection is a spendthrift trust.³⁴³ A spendthrift trust may be an ideal trust for bitcoin assets because the settlor and the trustee may create the trust to limit the beneficiary's interest and, in turn, creditors' reach of that interest.³⁴⁴ If Bitcoin users place their bitcoins into a spendthrift trust, they would avoid making distributions to beneficiaries when the distribution would go to a creditor, or when the trustee fears that the beneficiary would waste the distribution.³⁴⁵ Therefore, the settlor and the trustee must define and limit the beneficiary's interest, as well as the scope of the trustee's discretion.³⁴⁶

In general, more discretion typically grants greater protection from creditors attacking the beneficiary's interest.³⁴⁷ Texas has enacted legislation that provides creditor protection to persons that serve as the trustee and

^{340.} See generally Telephone Interview with George D. Greenberg, supra note 179 (explaining that a transfer of title of the bitcoins, which act as personal property, is necessary for users to place bitcoin assets within a trust); Graf, supra note 6 (explaining that a person will be able to possess or make use of the bitcoins only if the person has the corresponding signing keys necessary to access the user's wallet).

^{341.} See generally Understanding Funding Your Living Trust, supra note 339 (explaining the process of creating and maintaining a trust).

^{342.} See generally id. (discussing the importance of the trustee's control of the assets in the trust and benefits of a revocable living trust).

^{343.} Osborne & Osborne, *supra* note 330. A spendthrift trust includes the following provisions: first, it prohibits the beneficiary from assigning the beneficiary's interest in the trust; and second, it prohibits a beneficiary's creditors from accessing the beneficiary's interests in the trust. *Id.*; *see also In re* Wilson, 140 B.R. 400 (Bankr. N.D. Tex. 1992) (holding that spendthrift trusts are trusts in which the right of beneficiaries to payments is not alienable or subject to collection for their debts).

^{344.} Osborne & Osborne, supra note 330.

^{345.} See Types of Trusts, supra note 329. Another option for Bitcoin users is to create a self-settled trust; this trust includes the settlor as a beneficiary of the trust and prohibits creditors from reaching trust assets. See Sisi C. Tran, Self-Settled Spendthrift Trust: More Than Meets the Eye, CONVERGENT WEALTH ADVISORS, http://www.convergentwealth.com/sites/default/files/uploads/image/layout/Self-Settled%20 Trust.pdf (last visited Jan. 30, 2015). However, Texas does not have any domestic asset protection trust laws; settlors cannot create a trust for their own benefit to insulate their assets from creditors because it is against public policy. Rania Combs, Can I Create an Asset Protection Trust for My Own Benefit?, TEX. WILLS & TR. L. (June 4, 2014), http://www.texaswillsandtrustslaw.com/2014/06/04/can-i-create-an-asset-protection-trust-for-my-own-benefit/; see TEX. PROP. CODE ANN. § 112.035(d) (West 2013).

^{346.} Osborne & Osborne, supra note 330.

^{347.} *Id*.

beneficiary of a discretionary trust.³⁴⁸ Thus, if the investor/settlor designated one person (such as a spouse or family member) as the trustee and as the beneficiary of the trust, that person could effectively manage the trust assets in a manner that would allow the trustee and beneficiary to realize the largest benefits from the bitcoin assets.³⁴⁹ Further, the Uniform Trust Code now provides that "a creditor may not reach the assets of a spendthrift trust if the discretion of the trustee-beneficiary in making distributions to himself is limited to an ascertainable standard."³⁵⁰

Another facet of the spendthrift trust that is important for Bitcoin users is a limitation on asset protection for the duration of the trust.³⁵¹ Spendthrift asset protection only applies while the assets are in the trust, not in the hands of the beneficiary.³⁵² Therefore, the trustee could potentially monitor the market price of the bitcoin assets and correlate a bitcoin distribution to the beneficiary when the beneficiary has little to no debt; thus, the beneficiary would receive the bitcoins at their highest value and could pay any creditors.³⁵³

b. Irrevocable Trust

A Bitcoin user, or anyone else for that matter, cannot amend, revoke, terminate, or change an irrevocable trust at any time once it becomes effective. Bitcoin investors may show interest in the creation of this particular trust because it serves as a means of insulating property and helps to avoid federal estate taxes; however, the investor would still have to pay federal gift taxes because the law treats this property transfer as a gift. Property appreciating in value may be ideal for this type of transfer because "the appreciation in value from the date of transfer to the date of death will be exempt from both the federal gift tax and the federal estate tax." Therefore, if the bitcoin assets realize any increase in value over the course

^{348.} *Id.*; PROP. § 112.035(e)–(f).

^{349.} See generally Osborne & Osborne, supra note 330 (explaining ways for trustees to manage assets within the trust to distribute to beneficiaries).

^{350.} Id.; UNIF. TRUST CODE § 504(e) (amended 2010).

^{351.} Osborne & Osborne, supra note 330.

^{352.} Id.

^{353.} See generally BEYER, supra note 324, at 88 (explaining that a spendthrift provision or trust has no effect once the trustee makes a distribution to the beneficiary); see also infra Part VIII.A.2.a-b (discussing the trustee's duty to implement different investment approaches depending on the beneficiary's needs and other factors). Creditors may face issues with collecting the beneficiary's bitcoin assets once a distribution has been made; creditors do not necessarily have a legal tool to seize the beneficiary's bitcoins because bitcoins do not fall under the categories of a garnishment, a judgment lien, or a levy. See generally Alper, supra note 171 (explaining the difficulty creditors may face when searching for and collecting bitcoin assets). Without the beneficiary's password, the creditor would not be able to find, access, or verify the bitcoin assets. Id.

^{354.} Types of Trusts, supra note 329.

^{355.} Id.

^{356.} Id.

of the trust's duration due to market price fluctuation, the appreciation would not result in more taxes than the investor/settlor had originally planned.³⁵⁷

c. Revocable Trust

Courts recognize a revocable trust as a living trust because settlors retain control for as long as they wish.³⁵⁸ With a revocable trust, the settlor retains "incidents of ownership" to the property and retains control over trust assets.³⁵⁹ A revocable trust allows the Bitcoin investor/settlor to change the living trust agreement's terms by changing and even taking out the assets put into the trust; however, the revocable trust really offers no asset protection.³⁶⁰ If a creditor sought the bitcoins, as property, out of the investor's trust to enforce a judgment, the investor would have no option but to pay off the judgment.³⁶¹

If the investor/settlor decides not to place some of the bitcoins into the trust, for fear of any trustee abuse of power, they must know that the court will put the assets through probate. Any assets not within the trust's protective boundaries will go to probate. Bitcoin investors with a large quantity of bitcoins should be weary of the revocable trust's restrictions. Nonetheless, bitcoin investors may benefit from creating a revocable living trust because of their ability to control the trust assets by buying and selling bitcoin assets. 365

VIII. TRUSTEE'S RIGHTS AND DUTIES

A. Selection of the Trustee

The appointment of trustee to manage the trust's assets is an incredibly important and demanding task.³⁶⁶ For asset protection purposes, the Bitcoin user may wish to appoint a trustee who is separate from the named

- 357. See generally id. (discussing the tax benefits of creating an irrevocable trust).
- 358. See Grantor Trust-What Is It?, supra note 250.
- 359. Beverly Bird, Do I Have to Pay Taxes on the Sale of a Home in a Trust?, DEMAND MEDIA, http://finance.zacks.com/pay-taxes-sale-home-trust-7676.html (last visited Nov. 7, 2014).
- 360. See Julie Garber, Can a Creditor Take Assets Held in Your Living Trust?, ABOUT MONEY, http://wills.about.com/od/overviewoftrusts/qt/assetprotectionandtrusts.htm (last visited Dec. 29, 2014).
- 361. *Id.* In addition, a divorcing spouse could access the bitcoin assets because the property is not shielded from divorce claims either. *See id.*
 - 362. See Grantor Trust-What is it?, supra note 250.
 - 363. See id.
 - 364. See generally id. (indicating that a revocable trust will not hold assets greater than \$675,000).
- 365. See generally Understanding Funding Your Living Trust, supra note 339 (explaining the benefits of a revocable living trust). This is an important tool for bitcoin investors wanting to have personal control over their investments rather than selecting a trustee to manage bitcoin assets and investments within the trust. See generally id. (stating that the settlor/trustee would have complete control over trust assets).
- 366. See generally TEX. PROP. CODE ANN. § 117.004 (West 2013) (explaining the standard of care required of a trustee).

beneficiary of the trust.³⁶⁷ The trustee should be someone familiar with Bitcoin, or at least aware of the process required to access and use bitcoins.³⁶⁸ A trust containing bitcoins will require different investment approaches that will depend on the trustee's abilities; the trust's purpose of investing, protecting, and preserving the user's bitcoins; and the beneficiary's needs.³⁶⁹

One significant option for Bitcoin users interested in creating a trust for their digital assets is the appointment of a protector.³⁷⁰ A protector generally possesses "the ability to remove and replace the trustees, to designate new beneficiaries, or to veto distributions by the trustees."³⁷¹ If a user is unhappy with the trustee's actions, the protector—who is more privy to the Bitcoin system or perhaps is a fellow Bitcoin user—may remove the trustee and assign someone else.³⁷² The appointment of a protector is a powerful tool; the protector can remove problematic beneficiaries, such as those who may take advantage of the trust's assets.³⁷³

1. Rights of the Trustee

Generally, the trustee has the power to manage, invest, and reinvest trust property of any character, subject to the trust's conditions and the length of time the trustee considers proper.³⁷⁴ "[T]he trustee is entitled to reasonable compensation from the trust" for serving as the trust administrator.³⁷⁵ In addition, the trustee has the general right to reimbursement from trust principal or income "for (1) advances made for the convenience, benefit, or protection of the trust or its property; [and] (2) expenses incurred while administering or protecting the trust or because of the trustee's owning or holding any of the trust property."³⁷⁶ The trustee could potentially collect transaction fees associated with any bitcoin transactions, such as those necessary for investment purposes and growth of the trust.³⁷⁷

^{367.} See Osborne & Osborne, supra note 330.

^{368.} See generally Telephone Interview with George D. Greenberg, *supra* note 179 (explaining that it is imperative that the Bitcoin user instruct the beneficiary of the Bitcoin accounts on how to access and use the account and bitcoins).

^{369.} See generally BEYER, supra note 324, at 124 (explaining that the trustee will need to properly manage the different trusts); PROP. § 117.004(a).

^{370.} See generally Osborne & Osborne, supra note 330 (indicating that the appointment of a protector serves as a check on the trustee's powers).

^{371.} Id.

^{372.} See generally id. (explaining the protector's duty in removing a trustee).

^{373.} See id.

^{374.} TEX. PROP. CODE ANN. § 113.006 (West 2013).

^{375.} *Id.* § 114.061. Trustees are subject to the court's denial of their compensation for breach of trust. *Id.*

^{376.} Id. § 114.063.

^{377.} See generally supra Part II.A (explaining bitcoin transaction fees); see also infra Part VIII.A.2.a—b (discussing the trustee's duties to grow and protect the trust by investing in bitcoins and liquidating bitcoin assets).

2. Duties of the Trustee

In addition, the trustee owes the beneficiary duties of "undivided loyalty and utmost good faith with regard to all trust matters." The trustee must avoid all conflict-of-interest situations and self-dealing. The trustee must not directly or indirectly sell or buy trust property to or from (1) the trustee or an affiliate; (2) an officer, director, or employee of the trustee or an affiliate; (3) the trustee's relative; or (4) the trustee's partner, employer, or other business associate. Thus, the trustee cannot enter into transactions using the bitcoin assets in the trust if anyone personally or professionally related to the trustee is a party to the transaction. The strustee of "undivided loyalty" and utmost good faith with regard to all trust entered in trustee of the truste

a. Growth of the Trust

The trustee has the duty and authorization to make investments of the trust assets in an authorized investment vehicle. A trustee who manages and invests trust assets owes a duty to all beneficiaries to comply with the Prudent Investor Act. There is one limitation on the Prudent Investor Act: the trust's provisions may expand, restrict, eliminate, and alter it. Expanding on the concept of a prudent investor, the Texas Property Code states that "[a] trustee shall invest and manage trust assets as a prudent investor would, by considering the purposes, terms, distribution requirements, and other circumstances of the trust. That type of conduct necessarily demands reasonable care and skill that would dictate decisions regarding the risk and return objectives of the trust.

Encompassed in the trustee's primary duty of growth of the trust is the trustee's sub-duty to diversify the investments of the trust.³⁸⁷ Unless the trustee reasonably determines that the purposes of the trust are better served without diversifying, perhaps due to special circumstances, the trustee must diversify the trust's investments.³⁸⁸ A trustee may accomplish diversification by investing in other recognized assets, stocks, or bonds, if the trustee sets up the trust primarily for bitcoin investment; however, if the settlor has already

^{378.} See BEYER, supra note 324, at 131.

^{379.} See id.

^{380.} TEX. PROP. CODE ANN. § 113.053(a) (West 2013).

^{381.} See generally id. (explaining the duty of the trustee to refrain from purchasing or selling trust property to prohibited persons).

^{382.} See id. § 113.056; see also supra Part VI.B.1–2 (discussing two types of investment vehicles that settlors and trustees of a trust with bitcoin assets should consider).

^{383.} PROP. § 117.003(a).

^{384.} Id. § 117.003(b).

^{385.} *Id.* § 117.004(a).

^{386.} Id. § 117.004(a)-(b).

^{387.} See generally id. § 117.003 (explaining a trustee's rights and responsibilities).

^{388.} Id. § 117.005.

created a trust and invested in such recognized assets, the trustee may diversify the trust by investing in bitcoins.³⁸⁹

While many Bitcoin users may be interested in investing in the BIT or the Bitcoin ETF, and placing that account into a trust, they must be aware of the risk associated with the trustee's duty to grow bitcoin assets. Bitcoin volatility plays a significant role in that risk. In addition, any change in bitcoin's classification or legal status will stifle the trustee's ability to grow the trust. The settlor's investment in bitcoin within the trust is managed by the trustee according to the "total asset management" approach. The appropriateness of such a risky investment like bitcoin is based on the entire trust portfolio's performance. The trustee must consider the risk and return objectives—the fact that bitcoin assets could potentially appreciate or depreciate, depending on the market price, and could also earn income—when carrying out the duty of trust growth.

b. Protection of the Trust

The settlor entrusts the trustee with the duty to protect the settlor's assets placed into the trust.³⁹⁶ This duty involves taking into consideration several factors:

(1) general economic conditions; (2) the possible effects of inflation or deflation; (3) the expected tax consequences of decisions or investment strategies; (4) the role that each investment or course of action plays within the overall trust portfolio . . . ; (5) the expected total return from the income

^{389.} See John Light, Investing in Bitcoin, BITCOIN CONSULTANT (Mar. 5, 2014), http://bitcoin consultant.me/2014/03/05/investing-in-bitcoin/. See generally James Hirby, What Else Can I Invest in Besides Stocks, Bonds, Money Market Funds and Mutual Funds?, L. DICTIONARY, http://thelaw dictionary.org/article/what-else-can-i-invest-in-besides-stocks-bonds-money-market-funds-and-mutual-funds/ (discussing issues that investors may face when choosing alternative forms of investments). Bitcoin investment can include investment in the currency itself, in bitcoin startup companies, or in bitcoin mining hardware. See id.

^{390.} See generally PROP. § 117.004(a)—(b) (explaining that a trustee is required to grow assets within the trust as a prudent investor would—with reasonable care and skill). See supra Part VI.B.1–2 (discussing different bitcoin investment accounts and the risks and benefits associated with bitcoin investments).

^{391.} See generally Cohan, supra note 256 (discussing the volatility of bitcoins and the factors people should consider when determining whether to invest).

^{392.} See generally Tom Lydon, Winklevoss Bitcoin ETF: Crazy, or Crazy Like a Fox?, ETF TRENDS (July 9, 2014, 9:03 AM), http://www.etftrends.com/2013/07/winklevoss-bitcoin-etf-crazy-or-crazy-like-a-fox/ (explaining that because Bitcoin's legality may change, investment in Bitcoin may never be completely secure).

^{393.} See BEYER, supra note 324, at 124; PROP. § 117.004(a).

^{394.} See generally BEYER, supra note 324, at 124–25 (explaining that a prudent investor must decide the best investment strategy when contemplating risky investments).

^{395.} See id. at 125 (discussing the trustee's duty to act as a prudent investor when considering different investment approaches for the trust); PROP. § 117.004(a).

^{396.} See PROP. § 117.004(a).

and appreciation of capital; (6) other resources of the beneficiaries; (7) needs for liquidity, regularity of income, and preservation or appreciation of capital; and [most notably for bitcoin asset purposes] (8) an asset's special relationship or special value, if any, to one or more of the beneficiaries or to the purposes of the trust.³⁹⁷

The trustee has the duty to manage the bitcoin investment, whether it is an investment in the Bitcoin ETF or some other investment vehicle. The duty to manage the bitcoin investment includes the discretion to liquidate the holdings in the investment vehicle and sell bitcoins through a recognized bitcoin exchange, such as Coinbase or Bitstamp. If the trustee uses the accumulated bitcoins through an exchange or a transaction, the value of the bitcoins increase due to an increase in demand for bitcoins. This may be one way for the trustee to ensure that the beneficiary recognizes the benefits of the trust.

IX. POTENTIAL ISSUES WITH ESTATE PLANNING FOR DIGITAL ASSETS

A. Issues with Placing Bitcoins into a Trust

The most popular hosted Bitcoin wallet storage provider, Coinbase, currently has no mechanisms in place to allow investors to place their wallets directly into a trust.⁴⁰² Users would need to make a wallet with another

^{397.} Id. § 117.004(c)(1)-(8).

^{398.} See generally BEYER, supra note 324, at 124–25 (explaining the standard of care and duty of the trustee to select and manage investments).

^{399.} See generally Jared Cummans, How Do ETF Dividends Work?, ETF DATABASE (Mar. 20, 2014), http://etfdb.com/2014/how-do-etf-dividends-work/ (explaining the process of ETF distributions and the payout process). See Bitcoin Exchange Guide, supra note 248 (listing some of the available bitcoin exchanges that allow users to convert bitcoins into physical currency and vice versa). Investors should note that ETFs are subject to market fluctuation and any risks of underlying investments. See Exchange-Traded Funds (ETFs), FIDELITY, https://www.fidelity.com/etfs/overview (last visited Jan. 30, 2015). Coinbase is a unique exchange that offers users the combined opportunity of wallet storage and bitcoin for United States dollar exchanges. See Bitcoin Exchange Guide, supra note 248. Coinbase's exchange allows users to buy and sell bitcoins through Coinbase, rather than through user-to-user transactions. Id.

^{400.} See What Is Bitcoin?, supra note 231.

^{401.} See generally BEYER, supra note 324, at 1 (explaining that the beneficiary holds an equitable interest in the trust property).

^{402.} Interview with Joe, Online Representative of Coinbase (Dec. 23, 2014). The remaining information about placing a wallet directly into a trust has been published onto the Coinbase website; to obtain more information regarding Bitcoin and estate planning, one must ask to speak to a representative through the online chat device available on Coinbase's main website. COINBASE, https://www.coinbase.com/. In addition, Cryptsy, another wallet storage provider, does not have any mechanisms in place for users to place their wallets into trusts. Interview with Jim, Customer Service Manager of Cryptsy (Jan. 3, 2015, 10:16 PM). This information has not been published onto the Cryptsy website; to obtain more information regarding Bitcoin and estate planning, one must email a representative using the email address provided on Cryptsy's main website. CRYPTSY, https://www.cryptsy.com/. Also, Cryptsy only allows one user per account; therefore, users cannot make a copy of their wallet to provide access to the wallet by multiple users or designated persons. *Id.*

company or store their wallet on their own in order to place their wallet into a trust. ⁴⁰³ In addition, Coinbase does not have a way for users to designate a beneficiary through the company on the wallet itself. ⁴⁰⁴ If users inquire about adding beneficiaries to their account, Coinbase only provides information about mentioning the Bitcoin wallet in an individual user's will. ⁴⁰⁵

Coinbase does allow users to utilize multiple signature wallets to send transactions, but it does not allow for multiple users on the same account. How Thus, Coinbase would not permit a user to allow their spouse or a designated person to access their wallets stored on the Coinbase website. Auser's family would not even be able to ask for information about the user's wallet without necessary documentation. Coinbase is a centralized service built on top of Bitcoin; thus, the company would be able to assist a user with moving funds, but only with the required documents.

Coinbase users do not have access to their private keys; Coinbase manages private keys for its users. The key necessary to access the user's wallet is a two-factor authentication and device authentication on all accounts. The authentication process requires designated persons wanting access to the user's wallet to retain the user's password to enter into Coinbase. All of these mechanisms in place stress the fact that Coinbase takes security seriously: "The nature of a Bitcoin wallet is that you should be the only person who has access to it. It is akin to burying cash in a spot only you know of."

Another potential issue with bitcoin estate planning is that a trust could terminate because the trust no longer holds bitcoin property. Bitcoin property could be dissolved if: (1) a governmental entity classified bitcoin as illegal, (2) all persons and users transacting with bitcoins stopped accepting bitcoins, or (3) a superior virtual currency supplanted bitcoin, rendering it valueless. As bitcoin's legal status could change at any time, "[i]t may be

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403. Interview with Joe, Online Representative of Coinbase, supra note 402.
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^{404.} Id.

^{405.} Id.

^{406.} *Id.*; see Multisig API, COINBASE, https://www.coinbase.com/docs/api/multisig (last visited Jan. 30, 2015).

^{407.} Interview with Joe, Online Representative of Coinbase, *supra* note 402.

^{408.} Id.

^{409.} Id.

^{410.} Id.; see supra Part II.A.

^{411.} Interview with Joe, Online Representative of Coinbase, supra note 402.

^{412.} *Id*.

^{413.} Id

^{414.} See generally BEYER, supra note 324, at 69 (explaining that a trust terminates when no property remains).

^{415.} See generally FAQ, BITCOIN WIKI, https://en.bitcoin.it/wiki/FAQ (last visited Jan. 30, 2015) (explaining what issues may come into existence with Bitcoin economics); see also Jon Matonis, Government Ban on Bitcoin Would Fail Miserably, FORBES (Jan. 28, 2013, 9:39 AM), http://www.forbes.com/sites/jonmatonis/2013/01/28/government-ban-on-bitcoin-would-fail-miserably/ (discussing the impact of a potential government ban on bitcoin). Some Bitcoin experts believe that a government

illegal now, or in the future, to acquire, own, hold, sell or use Bitcoins in one or more countries, and ownership of, holding or trading in Shares may also be considered illegal and subject to sanction."⁴¹⁶

B. Issues with Investing in Bitcoin

Currently, an average investor or Bitcoin user cannot invest in bitcoin. 417 Large-scale investors have the option of buying in high single units through brokers and exchanges. 418 However, there are only a small percentage of investors who seem to want to diversify their portfolio with alternative investments such as bitcoin. 419 Investors interested in bitcoin should be cognizant of the recent SEC warning. 420 The SEC warns against investments in bitcoin for multiple reasons: investments may have an intensified risk of fraud; investors will be subject to high-risk investment schemes; investors' recovery may be limited in the event of theft or fraud; and investors may not have the security of bitcoin insurance. 421 However, top-tier investors back bitcoin exchanges and wallet storage companies, and they have mechanisms in place to insure a company against internal theft, hacking, and accidental loss. 422

ban on bitcoin would not hinder the demand for bitcoin because users value their income and consumption privacy. *See id.* In addition, market price fluctuations could potentially render bitcoin practically valueless; however, as more bitcoins are mined and used, deflation may work to increase the value of bitcoins. *See FAQ*, BITCOIN WIKI, https://en.bitcoin.it/wiki/FAQ (last visited Jan. 30, 2015).

- 416. See Lydon, supra note 392.
- 417. See generally Marcelina Hardy, U.S. Bitcoin Trust Investing: Bitcoin Funds Gain Steam, WEALTH DAILY (Sept. 27, 2013), http://www.wealthdaily.com/articles/us-bitcoin-trust-investing/4689 (explaining that unless the Winklevoss ETF is approved by the SEC, the only option for bitcoin investment will be in the BIT, which only supports accredited investors).
- 418. See Lydon, supra note 392; see also Part VI.B (explaining Bitcoin users' options to use brokerage accounts or exchanges to invest in bitcoin). One website lists the top six bitcoin exchanges according to types of currency, the level of trust associated with the exchange, and specific features available with the individual exchanges, such as security levels and transaction fees. See Bitcoin Exchange Guide, supra note 248.
 - 419. Telephone Interview with George D. Greenberg, supra note 179.
- 420. Investor Alert: Bitcoin and Other Virtual Currency-Related Investments, U.S. SEC. & EXCHANGE COMMISSION (May 7, 2014), http://www.sec.gov/oiea/investor-alerts-bulletins/investoralert sia_bitcoin.html#.VM5Hhp3F-So.
- 421. *Id.* Federal and state securities laws apply to bitcoin investments; however, different jurisdictions may choose not to classify bitcoin as a security. *See* Mushkin, Sahid & Taub, *supra* note 103.
- 422. See A U.S. Based Bitcoin Exchange, COINBASE, https://exchange.coinbase.com/ (last visited Feb. 3, 2015); see also Part VI.B.1–2 (discussing the security levels of investments in vehicles such as the BIT or the Bitcoin ETF). Coinbase insures an amount that covers the maximum value of bitcoins the company holds in online storage at any particular time. *Id.* In addition, Coinbase offers wallet protection by storing the majority of users' funds offline. See supra Part VI.B.1–2.

X. CONCLUSION

Bitcoin's universal translation is clear: digital currency will continue to circulate and matriculate among different factions of people as long as people are willing to put their trust in the system, which is volatile and possesses an inherent tendency to be both under the radar of governmental regulation (state and federal) and to simply escape it.⁴²³ However, the very components that users cherish and that sustain the Bitcoin system—trust by means of verification and security by way of private party transactions without the restrictions of a central authority—prevent the ease of access and transferability necessary for users to place their bitcoins into a trust.⁴²⁴

Users do not trust other users; as such, users with any substantial amount of bitcoins in their wallets will most likely seek wallet security by conveying their wallets, for storage and protection purposes, to a third-party company. Bitcoin users trust both that the company will safely store and protect their bitcoin assets and that they will be able to retrieve their assets at any time. However, some wallet storage companies' ability to effectively meet users' expectations by providing wallet protection and retrieval (and ultimately a platform for users to integrate bitcoin investment into their lives) is hindered by the companies' inability to place wallets directly into a trust. Online wallet service companies should recognize the wave of interest in Bitcoin wealth accumulation and incorporate mechanisms within their online policies that would allow users to protect their bitcoins well into the future.

^{423.} See generally Bitcoin - Daily Number of Transactions, supra note 5 and accompanying text (providing statistics on the number of bitcoin transactions thus far in 2015).

^{424.} See generally supra Part II.A (discussing how users' verification of transactions creates trust in the bitcoin system as a whole); Why Use Bitcoin?, COINDESK (Feb. 20, 2014), http://www.coindesk.com/information/why-use-bitcoin/ (stating that Bitcoin users create security by transacting with other users directly, rather than going through a merchant and using a credit card).

^{425.} See generally Securing Your Wallet, BITCOIN, https://bitcoin.org/en/secure-your-wallet (last visited Jan. 30, 2015) (explaining the importance of users securing their wallets, different forms of wallet storage available, and means to encrypt and backup wallets). "Your bitcoins can be lost forever if you don't have a backup plan for your peers and family. If the location of your wallets or your passwords are not known by anyone when you are gone, there is no hope that your funds will ever be recovered." *Id.*

^{426.} See generally Why Would I Use Bitcoin? Why Should I Use Bitcoin?, COINBASE, https://support.coinbase.com/customer/portal/articles/1824913-why-would-i-use-bitcoin-why-should-i-use-bitcoin- (last visited Jan. 30, 2015) (stating that Bitcoin allows users to store and control their money free from restrictions, penalties, and fees).

^{427.} See generally Coinbase Mission, COINBASE, https://www.coinbase.com/ mission (last visited Feb. 1, 2015) (stating that Coinbase's mission is to make bitcoin easy to use by providing a way for users to incorporate bitcoin into their lives and by functioning as a brand that bolsters users' trust in its system by meeting customer expectations).

^{428.} See generally Telephone Interview with George D. Greenberg, supra note 179 (discussing the potential issues with online wallet services companies honoring the ownership of Bitcoin wallets by a trust). If online wallet services companies do not set up estate planning functions within their systems, many users may choose to manage their wallets personally; this would help users avoid any issues with placing a Bitcoin wallet into a trust. See id. If the companies do not accommodate the estate planning needs of their clients, the companies will most likely be drawn into probate court, which would defeat the quality of anonymity that many Bitcoin users cherish. See generally id. (deliberating the future of online

If wallet storage companies implement policy changes to meet Bitcoin users' estate planning goals, attorneys will then need to consult each individual state's classification and regulation of bitcoin before creating a trust. ⁴²⁹ In order to sustain digital currency into the future, attorneys specializing in estate planning and financial advising should familiarize themselves with the intricacies of Bitcoin, and bitcoin clients' needs to protect their digital assets. ⁴³⁰ Users will continue to transact with and invest in bitcoin as long as it exists as property, digital currency, or any other legal classification that it may become. ⁴³¹ Overall, Bitcoin is not a bust; as such, the future of Bitcoin will depend on the role that the Bitcoin network assumes in the global economy and in the legal realm of regulations. ⁴³²

wallet services companies and estate planning procedures, such as asset protection through trusts and probate proceedings, and enforcing trust laws for the novelty of Bitcoin).

^{429.} See discussion supra Part III.A.3 (stating that individual state's classifications of bitcoin play an important role in the regulation of bitcoin transactions and investments).

^{430.} See generally Greenberg, supra note 10 (outlining the issues related to estate planning and taxation of bitcoins). If the SEC approves the Winklevoss Bitcoin ETF and the BIT, or both, attorneys should be aware of users' ability to invest in bitcoin for the purpose of wealth accumulation rather than just use bitcoins for day-to-day transactions. See generally id. (discussing the need for estate planning for digital assets).

^{431.} See Graf, supra note 6.

^{432.} See generally Why Would I Use Bitcoin? Why should I Use Bitcoin?, supra note 426 (stating Bitcoin's benefits and risks going into the future). See generally supra Part VI.B.1–2 (explaining investment accounts and the approval process necessary before users may directly invest in Bitcoin).