THE EVOLUTION OF GIVING: CONSIDERATIONS FOR REGULATION OF CRYPTOCURRENCY DONATION DEDUCTIONS

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ABSTRACT

This Issue Brief looks at the rapidly growing area of cryptocurrency donations to nonprofit organizations. Given the recent IRS guidance issued on taxation of Bitcoin, specifically its decision to treat cryptocurrencies as property, questions now arise as to how charitable contributions of the coins will be valued for tax deductions. Though Bitcoin resembles most other capital gain property, its volatility, general decline in value, anonymity, and potential for abuse require specific guidance on valuation and substantiation so as to handle its unique nature and prevent larger deductions for charitable contributions than those to which taxpayers are entitled.

INTRODUCTION

In April of 2014, the Internal Revenue Service (IRS) finally heeded the repeated calls for guidance on tax treatment of cryptocurrencies by issuing Notice 2014-21.[1] In it, the IRS dictated that cryptocurrencies would be treated as property (rather than a foreign currency or other type of asset), and that mined coins would be taxed as self-employment income.[2] Though this guidance answered many questions, it left many others unanswered, such as the specifics regarding deductions for charitable contributions of Bitcoin.[3]

Cryptocurrency donations are steadily on the rise. The Wikimedia Foundation, Epic Change, the Church of Saint John the Evangelist, and many other nonprofits are now accepting contributions in

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[1] I.R.S. Notice 2014-21, 2014-16 I.R.B. 938 (discussing virtual currency in general).

[2] *Id.*

[3] For the most part I will refer to Bitcoin as the representative of all cryptocurrencies due to its popularity, comparatively high value, and the larger number of resources available to its users—however, most of this analysis will also apply to Namecoin, Litecoin, Dogecoin and the like.

Bitcoin.[4]   In addition, the BitGive Foundation, an investment trust of bitcoins to be disseminated to deserving charities such as the Water Project, has become the first Bitcoin nonprofit to receive 501(c)(3) status,[5] demonstrating Bitcoin's rising popularity in the nonprofit sector and the United States government's increased acceptance of the cryptocurrency.

Now that the IRS has classified Bitcoin as property for tax purposes, 26 U.S.C. § 170 dictates that charitable contributions of the cryptocurrency may be deducted at their fair market value at the time of their transfer to the nonprofit.[6]   Bitcoin, however, is fairly anonymous, and its price is highly volatile, which raises questions of how its value should be determined for deduction, and how taxpayers should be required to substantiate their contributions.   Some form of guidance on these questions, whether it be a notice from the IRS, a Treasury regulation, or an addition to the list of § 170(e) rules, is necessary to prevent abuse of Bitcoin donations.   This brief concludes that such guidance should prescribe a detailed substantiation requirement, rules regarding the necessity of appraisal and qualified appraisers, and a clear rule of how and when fair market value will be calculated.

This brief will begin by explaining what Bitcoin is and the characteristics that complicate its regulation.   Part II then examines three possible valuation methods for cryptocurrency donations: the method used for stocks, the method for used vehicle donations, and valuation via appraisal.   Part III details the guidance and methods that would be required to value cryptocurrency donations like stock donations, and Part IV examines the substantiation requirements that should be implemented.

I. WHAT IS BITCOIN?

Bitcoin[7] is a digital currency created by the possibly pseudonymous Satoshi Nakamoto in 2009.[8]   What makes it, and the various cryptocurrencies that came after it, different from prior digital

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[4]   *Donation-Accepting Organizations and Projects*, BITCOIN WIKI, http://perma.cc/74U7-TGVN (last visited Dec. 1, 2014); *Bitcoin Accepting Charities*, BITCOIN 100, http://bitcoin100.org/charities/ (last visited Dec. 1, 2014).

[5]   Tanaya Macheel, *BitGive Becomes First Tax Exempt Bitcoin Charity*, COINDESK (Aug. 25, 2014 2:02 PM), http://perma.cc/97MD-DGJ7.

[6]   26 U.S.C. § 170(e) (2013).

[7]   The stylistic convention when writing about the cryptocurrency is to capitalize Bitcoin when referring to the currency as a whole, and to use lower case when referring to the individual units of currency.

[8]   Tal Yellin, Dominic Aratari, Jose Pagliery, *What is Bitcoin?*, CNN MONEY, http://perma.cc/YG3D-28NB (last visited Oct. 28, 2014).

currencies is that it is completely decentralized—i.e. there is no central bank or authority regulating its use.[9] It thus operates on a peer-to-peer network upon which users transact directly with each other.[10]

Because of the cryptocurrency's decentralized nature, there is no central authority verifying transactions.[11] The problem with this method is that in theory, anyone could alter the currency's ledger. Bitcoin solves this problem by verifying transactions via hashed "blocks" on the "block chain."[12] This block chain, a running public ledger of all Bitcoin transactions, is both the vehicle by which bitcoins are created and how they are secured.

In addition to its function as a ledger, the block chain operates to keep the system secure and prevent double-spending of bitcoins.[13] Bitcoins are initially created through a process called mining,[14] in which miners "hash" transactions, or compute a cryptographic hash of the block. The process is difficult enough that it prevents duplicate transactions, thereby preventing the double-spending problem in decentralized currencies.[15] Hashing requires miners to use their CPU to compute many different cryptographic hashes in the hopes of finding one that works.[16] The miner who does so is awarded a set amount of bitcoins by the network.[17] The newly hashed block is then added to the block chain.[18]

Users store their bitcoins in digital wallets on their computers or in the cloud.[19] These wallets have two keys in order to maintain security—one public, which operates as an address to which other users

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[9] CRAIG K. ELWELL, M. MAUREEN MURPHY, MICHAEL V. SEITZINGER, CONG. RES. SERV., R43339, BITCOIN: QUESTIONS, ANSWERS, AND ANALYSIS OF LEGAL ISSUES 1 (2014).

[10] *Id.* at 2.

[11] Elwell, *supra* note 9 at 1–2.

[12] *Frequently Asked Questions*, WEUSECOINS, http://perma.cc/L85H-VD9A (last visited Dec. 1, 2014).

[13] *Id.*

[14] *What is Bitcoin?*, COINDESK (Mar. 20, 2015), http://perma.cc/8E7L-F425. For a more in-depth discussion of Bitcoin mining in plain English, see David Perry, *Bitcoin Mining in Plain English*, CODING IN MY SLEEP (Sept. 6, 2012), http://perma.cc/ARK6-69FC.

[15] *Frequently Asked Questions*, *supra* note 12.

[16] *Id.*

[17] *Id.*

[18] *Id.*

[19] Yellin, *supra* note 8. In effect, the wallets do not store the bitcoins themselves, but rather the digital keys associated with a user's bitcoins and transactions. For more detail on digital wallets, see *How to Store Your Bitcoins*, COINDESK (Dec. 22, 2014), http://perma.cc/9RJA-3GMK.

can send bitcoins, and one private, which only the wallet's owner knows and is used to verify transactions.[20] Users can easily generate new public and private key pairs for their wallet as well, effectively having multiple addresses simultaneously for Bitcoin transactions.[21]

Bitcoin's decentralized structure is very attractive to most of its users, and one of its most attractive features is its relative anonymity. Despite the existence of a public wallet key that makes every user trackable, there is no identifying information about the user tied to that key.[22] Because the network is decentralized and peer-to-peer, the block chain serves as a running public ledger of every Bitcoin transaction.[23] Though it is possible in some cases to identify a user through the transaction history of his or her public wallet key, it is exceedingly difficult and unlikely for the average user to be identified (although it would be more probable when a user is moving large amounts of bitcoins).[24] Even so, users can further protect their identities by transferring their bitcoins through multiple wallets, using the Tor network (a "network of virtual tunnels" used to maintain privacy online)[25] to obscure their location, or by using services such as Bitcoin Fog which will perform those steps for the user—thereby obscuring the path through which their bitcoins traveled.[26]

Even without these steps, however, very little information about users is gleaned from studying the block chain. When a transaction is recorded on the block chain, observers can see the public wallet keys of the two transacting parties, the amount of bitcoins sent, the time of the transaction, a chain of any other wallets those bitcoins were later sent to, and the IP address from which the transaction was broadcast to the block chain (i.e. not necessarily the IP address of the user sending the bitcoins).[27] This information is not particularly helpful in identifying users, and users can easily circumvent revealing the items most likely to help in gleaning their identity via the methods discussed above. It is also important to note that the block chain does not account for the other side

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[20] Derek A. Dion, Note, *I'll Gladly Trade You Two Bits on Tuesday for a Byte Today: Bitcoin, Regulating Fraud in the E-conomy of Hacker-Cash*, 2013 U. ILL. J.L. TECH. & POL'Y 165, 168 (2013).

[21] Scott Driscoll, *How Bitcoin Works Under the Hood*, IMPONDERABLE THINGS (July 14, 2013), http://perma.cc/ZLA7-H9GD.

[22] Dion, *supra* note 20, at 168.

[23] *What is Bitcoin?*, *supra* note 14.

[24] ELWELL, *supra* note 9, at 1.

[25] *Tor: Overview*, TOR, http://perma.cc/PA2G-8LX5 (last visited Jan. 26, 2015).

[26] BITCOIN FOG, http://perma.cc/2QQW-DMTJ (last visited Oct. 29, 2014).

[27] Example transactions can be viewed at BLOCKCHAIN INFO, http://perma.cc/2YH4-DYRK (last visited Dec. 1, 2014).

of a transaction, i.e. what a recipient of bitcoins exchanged for them. As such, the block chain cannot be used to determine the price in dollars that a taxpayer may have paid for the bitcoins. Though Bitcoin exchanges do publish transactions with amounts on both sides, they do not identify the wallet keys, usernames, or other identifying information of users or the exact bitcoins traded.

While the anonymity of Bitcoin is a feature to most users, it can lead to abuse of the charitable contribution deduction—for example, its anonymity enables a taxpayer to exchange his own coins between multiple wallets to create a fake transaction, thereby making his basis in the bitcoins appear higher before donating. There are, however, potential ways to reduce anonymity in the nonprofit donation context. The most likely contenders are the markets Bitcoin is traded on. Some services used for third party payment or trade require identifying information beyond the public wallet key.[28] However, the exchanges do not have much incentive to reveal user information unless forced by the IRS. Generally speaking, the group of retailers that have begun accepting Bitcoin could also reduce anonymity of public keys should customer privacy be breached,[29] but even with transactions tying users' personal information to public keys anonymity can be kept intact through the use of multiple keys.

These characteristics raise several issues in the charitable giving context, primarily the question of valuing contributions for tax deductions under § 170(e).

II. How Should Bitcoin Donations be Valued?

Under § 170, deductions for donations of capital asset property that have been held for more than a year are allowable for the fair market value of the property, including any capital gain on the property.[30] Fair market value is defined as "the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of relevant facts."[31] Property which has been held less than a year is limited to its fair market value less any would-be capital gain, or more simply, the taxpayer's basis in the property.[32]

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[28] PATRICK MCLEOD, Comment, *Taxing and Regulating Bitcoin: The Government's Game of Catch Up*, 22 COMMLAW CONSPECTUS 379, 384 (2014).
[29] *See, e.g.*, *What Can You Buy with Bitcoin?*, COINDESK (Feb. 17, 2015), http://perma.cc/6A3V-N94R.
[30] 26 U.S.C. § 170(e)(1) (2013).
[31] 26 C.F.R. § 1.170A-1(c)(2) (2014).
[32] *Id.*

Section 170 is already a complex statute, with many rules tailored to specific situations, but it is necessary in order to prevent abuse of the charitable contribution deduction.[33] Though Bitcoins resemble stocks in some ways, some new provision—whether it is added to the multitude of rules in § 170, issued as an IRS Notice, or published in the Treasury Regulations on § 170—is likely needed to handle the unique character of cryptocurrencies to prevent exploitation. Three primary ways that Bitcoin could be valued for the purposes of charitable contribution deductions will be examined herein: like stocks, which are valued at the average price for which they sold on the valuation date,[34] like used vehicles, which are valued at the price for which the charitable organization is later able to sell the property, or by appraisal.

A. Treatment of Bitcoin donations like stocks

Seemingly the most logical way to calculate the fair market value of Bitcoin donations would be to map them on to the rules governing donations of stocks, primarily because of the readily available market prices on Bitcoin exchanges, which are comparable in some ways to stock exchanges. They are both traded on markets, with fluctuating prices, and seem to be similar enough in this context to warrant similar regulation. The two types of property, however, differ in potential for abuse, nature, acceptance, and use.

1. There is much more potential for abuse in Bitcoins than in stocks

The same decentralized, anonymous, peer-to-peer features that attract so many users to Bitcoin and other cryptocurrencies also provide a vast potential for abuse that is not present in stocks. This concern is the most significant in considering a deviation from the stock valuation model for Bitcoin, and as such, this Brief analyzes several methods of abuse.

Principal among these abuses is the ease with which a user can obscure where their bitcoins came from. One simple way to do so is by using multiple wallets, or multiple public keys. As discussed above, despite the block chain tracking all transactions by their public keys, there is no identifying information tied to these transactions.[35] As such, a user can have multiple wallets through which he or she transfers the bitcoins to obscure their source before identifying themselves to the nonprofit organization when the bitcoins are transferred from the last wallet.[36] For further protection, the user can employ the Tor network,

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[33] Vada Waters Lindsey, *The Charitable Contribution Deduction: A Historical Review and A Look to the Future*, 81 NEB. L. REV. 1056, 1057–58 (2003).

[34] 26 U.S.C. § 170(e)(5) (2013).

[35] Dion, *supra* note 20, at 168.

[36] *See* Driscoll, *supra* note 21.

which will obscure the path the transaction took from start to finish, making it even more difficult to identify users by IP address or location.[37] Though the organization will have the donating wallet listed as belonging to the donor, the donor's other wallets remain anonymous.

In fact, suggestions on executing such methods in order to retain anonymity are provided to users on the Bitcoin Wiki—in and of themselves, such actions are not illegal (unless it is for the purpose of money laundering or moving large amounts of money, the wiki warns).[38] There are also services which will undertake these steps for you: Bitcoin Fog operates a service wherein users deposit bitcoins, and upon withdrawal the bitcoins are divided into small payouts spread over a period of time from different wallets.[39] This makes the bitcoins, and the user, untrackable in the block chain as the transaction has become too complex and divided.[40]

Such techniques are relevant to the valuation of charitable contribution deductions because users can employ these techniques to change the apparent method through which the bitcoins were obtained. Per the IRS guidance issued in April, mined bitcoins are to be taxed as self-employment income, so generally deducting mined bitcoins to a nonprofit would open taxpayers up to audit unless they were reported appropriately on their returns.[41] However, by passing the bitcoins through multiple wallets or using Bitcoin Fog, a taxpayer could claim that they were purchased rather than mined, thereby avoiding the self-employment income tax.

More importantly, transactions where one user uses multiple wallets can change the adjusted basis a taxpayer has in the bitcoins by showing a different date of receipt than the date the user actually purchased bitcoins. This is important because for donations of property held less than a year, a taxpayer is entitled only to deduct their basis in the donated property.[42] For example, if the price were to increase greatly as it did at the end of 2013, but the user had purchased bitcoins earlier at a far lower price, the user could "sell" the bitcoins between two of his or her wallets to make it appear as if they purchased the bitcoins at the high price, and then donate them to a nonprofit. They would then get a deduction based on the incorrectly reported higher-value basis and have a higher tax savings than that to which they are entitled. As the block

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[37] *Tor: Overview*, *supra* note 25.

[38] *Anonymity*, BITCOIN WIKI, http://perma.cc/S8VU-7ENG (last visited Oct. 30, 2014).

[39] BITCOIN FOG, *supra* note 26.

[40] *Id.*

[41] I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

[42] 26 U.S.C. § 170(e)(1).

chain does not record what was exchanged for bitcoins in a given transaction, the taxpayer can claim a basis appropriate for the prices that were observed that day. This method would be used by those who have not met the one-year holding requirement before donating but have still seen appreciation on their bitcoins.

Why would a user go to all this trouble to get a large deduction rather than just selling the coins with their new adjusted basis to avoid the capital gains tax? First, there is some number of Bitcoin users who trade in the cryptocurrency specifically to avoid taxation and regulation by the government,[43] and such users would likely prefer to receive a tax benefit from disposing of the coins in a way that still prevents the government from receiving a tax on them later—such as by donating to a tax-exempt organization. There is also the simple answer, which is that even with shady practices many users can be altruistic. There is a history of criminally-obtained Bitcoins being donated to nonprofits, by modern-day Robin Hoods.[44]

There is also the question of whether the price of Bitcoin can be influenced, which would make the above basis-altering method—as well as simply purchasing when the price has been artificially decreased and donating over a year later when the price has been artificially increased—more effective. While it is possible for a user to do so, it is difficult and requires substantial resources—but hackers can, and have, pulled this off.[45]

The route open to most Bitcoin users would be to drive up the price by trading repeatedly amongst several wallets, whether they be owned by the same user or in tandem with another user, at a price far above the average trading price. At the end of this process, the user either donates bitcoins that have been held for at least a year, or claims a basis at the fair market value on that date.

The effectiveness of this technique is questionable, given that it would likely require a larger number of resources than its benefit is worth, but one possibility without IRS guidance to the contrary would be to undertake this activity on one of the smaller exchanges where the trade volume would have a larger effect, donate the bitcoins, and record the price reported on that exchange on that date as the fair market value on

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[43] *See* Eleazar David Melendez, *Bitcoin Celebrated As Way to Avoid Taxes*, THE HUFFINGTON POST (Apr. 16, 2013, 3:24 PM), http://perma.cc/X2G6-M3Q8.

[44] *See* Jasper Hamill, *Bitcoin Charity Admits Its Biggest-Ever Donation Was Likely Stolen Money*, FORBES (Feb. 3, 2014, 3:06 PM), http://perma.cc/6T9D-454C.

[45] *See* Alex Hern, *A History of Bitcoin Hacks*, THE GUARDIAN (Mar. 18, 2014, 7:50 PM), http://perma.cc/DUH6-V5TZ.

the date of donation. This is one of the reasons that, regardless of which valuation model is pursued, there must be guidance on which markets are factored into the determination, to be discussed in Part III.

Donating bitcoins to nonprofits rather than selling them allows taxpayers to avoid the capital gains tax on any bitcoins they have held for more than a year. This, however, is not an abuse of the system, despite its appearance to a layperson. Congress has decided to exempt such capital gains, whether it be to incentivize charitable giving or because such gains given to charities are not considered income,[46] and as it is a "liberalization[] of the law in the taxpayer's favor," "begotten from motives of public policy," it is "not to be narrowly construed."[47]

This potential for abuse, comparatively lacking in the realm of stocks, is the most compelling evidence of the need for a different valuation method than that of stocks. However, the two assets differ considerably in nature, use, and acceptance as well.

2. There are crucial differences and challenges in comparing stock exchanges and Bitcoin exchanges

Charitable contributions of stock are valued at the average price between highest and lowest selling prices on the valuation date, based on actual sales on the valuation date.[48] For stocks traded on more than one stock exchange, value is based on the exchange upon which the stock is principally dealt.[49] However, it is not so simple with Bitcoin: multiple exchanges (at least 20) exist for the cryptocurrency, some dealing in US dollars, others in foreign currencies, and there is no clear frontrunner on which Bitcoin is principally dealt.[50]

Furthermore, the price of Bitcoin is frequently different at each market. Sometimes the difference is small, while other times prices differ by at least $30—and that's not to mention differences when

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[46] *See* John D. Colombo, Article, *The Marketing of Philanthropy and the Charitable Contributions Deduction: Integrating Theories for the Deduction and Tax Exemption*, 36 WAKE FOREST L. REV. 657, 680–82 (2001) (discussing Congress' rationale for giving the charitable contribution deduction).

[47] Helvering v. Bliss, 293 U.S. 144, 151 (1934).

[48] INTERNAL REVENUE SERV., Publication 561, DETERMINING THE VALUE OF DONATED PROPERTY 5–6 (2007).

[49] *Id.* at 6.

[50] To date, Bitcoin exchanges include: 1Bse, ANX, BitBargain, Bitcoin-24, bitcoin.de, Bitfinex, BitSource, BitStamp, BTC-e, BTC China, CampBX, CEX.IO, itBit, Kraken, Localbitcoins.com, 247exchange, BIPS Market, BitSimple, Bittylicious, and Coinbase, among others. There are also at least three markets that are now defunct, and several more markets for other types of cryptocurrencies.

comparing between exchanges using different countries' currencies and the hassles that creates when it comes to valuation.[51]

The question remains, then how exactly taxpayers are to determine the fair market value of their donation even if the regulations follow this model for valuation. The multitude of markets upon which Bitcoin is traded makes averaging them all out very difficult, though the data available on Bitcoin Charts does make it possible.[52] In addition, there are no comparable resources to Bitcoin Charts for the other types of cryptocurrencies. These questions are to be further examined below, but first, Bitcoin differs from stocks in another key way.

3. Bitcoins differ from stocks in how users treat them and think about them

The resemblance between Bitcoin and stocks cannot be denied. Both are traded on markets, with fluctuating prices, and some people buy, sell, and invest in Bitcoin the way they would a stock. They differ greatly, however, in how we treat them and think about them, especially given the history of negative public perception of Bitcoin.

First, unlike stocks, Bitcoin is not likely to be considered a security. Though the District Court for the Eastern District of Texas found otherwise in *SEC v. Shavers*,[53] instead concluding that Bitcoins meet *SEC v. W. J. Howey & Co.*'s[54] criteria for investment contracts, and thus securities, the court's conclusion was merely intended to establish subject-matter jurisdiction in the case, and is far outweighed by a wealth of evidence in favor of commodity status.[55]

Beginning with the investment contract theory from *Shavers*, Bitcoin likely does not meet the four-part *Howey* test for investment contracts, which defines them as an investment "in a common enterprise," where the investor expects a profit "solely from the efforts of the promoter or a third party."[56] It is debatable whether Bitcoin meets

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[51] *See, e.g.*, Sid Clarkmore, *Why is BTC-E Bitcoin Cheaper and Lower in Price Than Other Markets?*, HEAVY (Nov. 20, 2013), http://perma.cc/XPP5-DEJ2; Garrick Hileman, *Quantifying Price Fragmentation Across Bitcoin's Biggest Exchanges*, COINDESK (Dec. 11, 2013), http://perma.cc/E4Y9-7XXR; Allen Scott, *The Bitcoin Price Index Needs Some Serious Fixing*, COIN TELEGRAPH (Nov. 21, 2014), http://perma.cc/76G8-HE2C.

[52] BITCOIN CHARTS, http://www.bitcoincharts.com (last visited Dec. 1, 2014).

[53] No. 4:13-CV-416, 2013 WL 4028182 (E.D. Tex., Aug. 6, 2013).

[54] 328 U.S. 293, 298–99 (1946).

[55] JOSEPH BURLESON, *Bitcoin: The Legal Implications of a Novel Currency*, 33 REV. BANKING & FIN. L. 99, 103 (2013) (citing SEC v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at *2 (E.D. Tex., Aug. 6, 2013)).

[56] *Howey*, 328 U.S. at 299.

the common enterprise prong, as some consider the perpetuation of the block chain and the Bitcoin market to be a common enterprise in which all users are engaged, and from which all users benefit from increasing prices.[57] Yet the expectation of profits is not common among all users of Bitcoin, and is not the primary reason for its existence—nor can profits be expected "solely from the efforts of the promoter or a third party," as there is no central being or authority running or promoting Bitcoin.[58] Many users transact in Bitcoin specifically because of its decentralized structure and the ability to avoid using a government-backed currency. For that matter, many users do not invest money in Bitcoin at all, as they can get in to the market by mining instead.[59]

There are many other categories under the definition of security, but Bitcoin does not seem to fit in those, either. In general, Bitcoins do not resemble securities because they do not require a monetary investment and do not depend on the control of a promoter or third party.[60]

Bitcoins further differ from stocks in that they are less frequently considered to be an investment. Indeed there are many users who consider Bitcoin as an investment and transact in it accordingly, but there are also many who use cryptocurrencies only to buy and sell goods and services,[61] a function far less prevalent in stocks. Furthermore, stocks are representative of an investment in a legal entity, as well as voting rights and rights to dividends from the company from which it is issued.[62] Bitcoin, on the other hand, does not carry such rights but only functions, outside of the exchanges, as any currency would. Further evidence of this distinction is present in IRS Publication 561, which notes that the fair market value determination of a stock includes such factors as the nature, history, management, and goodwill of the business, as well as the economic outlook of the industry and its competitors— factors that are nonexistent in Bitcoin.[63]

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[57] Vesna Harasic, Note, *It's Not Just About the Money: A Comparative Analysis of the Regulatory Status of Bitcoin Under Various Domestic Securities Laws*, 3 AM. U. BUS. L. REV. 487, 495 (2014).

[58] John William Nelson, *Why Bitcoin Isn't a Security Under Federal Securities Law*, LEX TECHNOLOGIAE (June 26, 2011 11:49 p.m.), http://perma.cc/PH6H-NR92.

[59] *Id.*

[60] *Id.*

[61] *See* Melendez, *supra* note 43.

[62] *Stock*, INVESTOPEDIA, http://perma.cc/H6GN-G4PL.

[63] INTERNAL REVENUE SERV., Publication 561, DETERMINING THE VALUE OF DONATED PROPERTY (2007).

Lastly, Bitcoin is crucially different from stocks due to the volatility of its price and the little trust the public has in it.[64] Many stocks can be volatile, but the price of Bitcoin can fluctuate greatly even within a few hours—and, though the price hovered around $1,200/BTC in December of 2013, it now bounces around the range of $300 to $500 and is generally declining in value over time, even hitting $179 in January 2015, a low not seen since prices tumbled due to the Mt. Gox Scandal in 2013.[65]

Some exchanges, even those that were the most popular to trade on when they existed, have disappeared entirely.[66] There have also been instances where markets have lost bitcoins in large amounts, either due to hacking or mistake.[67] These highly publicized events, coupled with the general (mistaken) public perception of Bitcoin as primarily a means of crime and tax evasion, have to some degree tainted the public opinion of Bitcoin as insecure and unstable—or, at least more so than stocks.[68]

The primary reasoning behind the method of valuation for stocks is likely the ease of a clear, public record of actual transactions at a fair market price, a feature that most other types of property under § 170 lack. It is for this reason that this model seems to be the obvious choice for valuing Bitcoin donations. However, as indicated in this brief, there are critical differences in the nature and use of Bitcoin and vastly more potential for abuse that should give regulators pause. As such, it is worth considering another model of valuation under which the taxpayer has less influence and less ability to abuse the charitable contribution deduction.

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[64] *See* Jonathan Todd Barker, *Why is Bitcoin's Value so Volatile?*, INVESTOPEDIA, http://perma.cc/JT86-RS6H (last visited Feb. 15, 2015) (analyzing several reasons why Bitcoin's price is volatile, including bad press, nebulous perceived value, and hacking scandals).

[65] *See* Sydney Ember, *Price of Bitcoin Tumbles*, DEALBOOK (Oct. 5, 2014), http://perma.cc/FA43-Y6PB; Joe Southurst, *Bitcoin Price Continues to Fall, Breaks $200 Mark*, COINDESK (Jan. 14, 2015), http://perma.cc/MZ2R-8DW7.

[66] *See* Cameron Keng, *Bitcoin's Mt. Gox Goes Offline, Loses $409M – Recovery Steps and Taking Your Tax Losses*, FORBES (Feb. 25, 2014), http://perma.cc/PM7G-HEAS; Timothy B. Lee, *Major Bitcoin Exchange Shuts Down, Blaming Regulation and Loss of Funds*, ARS TECHNICA (Feb. 15, 2012), http://perma.cc/9CMJ-XE6W.

[67] Robert McMillan, *The Inside Story of Mt. Gox, Bitcoin's $460 Million Disaster*, WIRED (Mar. 3, 2014), http://perma.cc/N4WL-M7WL (describing Mt. Gox's ongoing hacking problems which eventually led to its downfall).

[68] *See, e.g.*, Adam Levine-Weinberg, *Why You Can't Invest in Bitcoin*, THE MOTLEY FOOL (Oct. 5, 2014), http://perma.cc/A2VY-F63X.

B. Using the model of used vehicle valuation to prevent abuse

Section 170(f)(12) prescribes the unique method of valuation for donations of used motor vehicles, boats, and planes.[69]   Rather than calculating the fair market value of the property on the date of contribution, the deduction is limited to the gross proceeds resulting from the organization's sale of the vehicle (so long as no significant intervening use or material improvement has transpired since its donation).[70]

This section was enacted to prevent abuses of charitable contributions of used vehicles. Many donors were making excessive claims of value based on Kelley Blue Book values and other generic pricing guides, while the vehicle would sell at far less than that value at auctions.[71] The legislative purpose behind this section differs, in many cases, from the motivations outlined in this brief, though the desired outcome—to prevent taxpayers from taking a larger deduction than they deserve—is the same.

The question is whether there is potential for abuse similar to that which necessitated §170(f)(12).   Though there is no generic guidebook in use to determine fair market value in Bitcoin, there is similar difficulty in determining its price. Though it is easier to narrow down the price range because of the fluctuating prices on exchanges, it is not as simple as valuing stocks due to the variety of exchanges available and differences in currencies traded for Bitcoin on each. Yet it also is not as difficult as determining the fair market value of a used vehicle, for which one must take a stab in the dark even with guidebook values because of different rates of depreciation or states of disrepair.

However, much like a used vehicle depreciating over time, the price of Bitcoin is generally declining in value over time.[72] This is due to various market factors, but at some point will be countered by deflationary bias.[73] Bitcoin is having a difficult time pulling away from the negative image that tax evaders, black market sales, and hacking

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[69] 26 U.S.C. § 170(f)(12) (2013).

[70] *Id.*

[71] H.R. Rep. 108-548(I).

[72]   *See,   e.g.,   Bitstamp   Pricechart*,   BITCOIN   CHARTS, http://bitcoincharts.com/charts/bitstampUSD#rg730ztgSzm1g10zm2g25   (last visited Feb. 15, 2015) (demonstrating the price of the cryptocurrency on one exchange over the last two years and its general decline).

[73] *See, e.g.,* ELWELL, *supra* note 9; Saul Griffith, *A Look at the Massive Decline of Bitcoin*, VALUEWALK (Oct. 7, 2014), http://perma.cc/4BL7-ATGB; Matthew O'Brien, *Bitcoin is No Longer a Currency*, THE ATLANTIC (Apr. 11, 2013), http://perma.cc/SHC2-9LFV.

scandals have given it, even as more merchants accept the cryptocurrency—which only provides another downward force on the price, as merchants exchange Bitcoin for fiat currency immediately, creating greater selling pressure as more and more retailers enter the market.[74] These seem to be the primary forces causing the decline in Bitcoin's value, especially as Bitcoin continues to get bad press.[75]

However, as the limit of bitcoins in existence is approached 20 years from now, the prices are likely to rise. Bitcoin's deflationary bias is the result of the limited supply of bitcoins and its slow rate of growth: there is a limit of 21 million bitcoins that can ever be mined, and that limit is predicted to be met at least by 2040.[76] This means that as the cryptocurrency deflates, users will begin hoarding, as is always the case when a currency deflates; then, because the supply is capped, the supply cannot be increased to counter this deflation or stop the hoarding.[77] And, although Bitcoin's decentralized structure is one of its strengths in many ways, the lack of a central authority able to prevent deflation contributes to its deflationary bias.[78] In short, years into the future when the limit is approached, Bitcoin prices will rise again—yet for the foreseeable future, prices will likely continue to decline due to the market forces described above.

Another important factor, at least in the future when bitcoin mining becomes less popular, is the increased use of transaction fees. Over time, the reward for hashing a block will decrease to the point where bitcoin mining will no longer be worth the energy required by most miners and mining pools.[79] At that point, users will have to replace the current reward system with transaction fees, in the form of some amount of Bitcoin included in the transaction to be awarded to the miner who verifies the transaction in order to maintain the miners' incentive to continue hashing blocks.[80] The result, then, is that at some point in the future this will be required in order for users to get their transactions verified over others, and thus the actual amount received by the payee/donee will be less than the amount the taxpayer transmits. As

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[74] Griffith, *supra* note 73.

[75] *See, e.g.*, Pete Rizzo, *Warren Buffett Urges Investors to 'Stay Away' from Bitcoin*, COINDESK (Mar. 14, 2014), http://perma.cc/85EK-RPRK (describing Warren Buffett's comments discouraging investment in Bitcoin).

[76] O'Brien, *supra* note 73.

[77] *Id.*

[78] Rahul Singh, *The Perils of Bitcoin as Currency*, YALE INSTITUTION FOR SOCIAL AND POLICY STUDIES (June 30, 2014), http://perma.cc/EF8W-FU5Z.

[79] John Kelleher, *What is Bitcoin Mining?*, INVESTOPEDIA, http://perma.cc/NQJ6-2C7E (last visited Dec. 1, 2014).

[80] *Id.*

such, taxpayers cannot simply deduct the fair market value of the amount of bitcoins they donated on the date of contribution, as this will not account for the transaction fee to the nonprofit, but more importantly, it will also not account for whatever transaction fee the nonprofit must pay to convert the bitcoins to cash after receipt from the donor. The value of the donation will have thus decreased substantially between donation and conversion. The taxpayer's deduction ought to reflect the lower value that the nonprofit would receive, and this outcome can be achieved by using the used vehicle valuation model.

Naturally, this raises the question of whether we should concern ourselves with this discrepancy given that a similar effect occurs when donors make credit card donations. Though some credit card companies do not impose credit card fees on nonprofits for their received donations, some still do (albeit usually at a lower rate).[81] Even so, the highest rate on such a transaction is around 2.4%.[82] It remains to be seen what the custom for transaction fees in bitcoins will be, and given that it could easily be larger than credit card fees, especially as the Bitcoin limit is approached, it must be considered in the valuation analysis.

The potential abuses of the deduction outlined in the previous section might be avoidable under this valuation model as well. Though it would not solve the problem of laundering bitcoins to change a taxpayer's basis, it can reduce the effectiveness of a user's influence on the market, as they would no longer be able to know which date their donation will be exchanged on, nor necessarily which market—so even if a user had enough resources to try to influence the price as outlined above, this valuation method would prevent them from being able to do so in a way that benefits them.

Crucially, this valuation model would be remarkably easier to use. Rather than imposing the stringent recordkeeping requirements that would be necessary for the fair market value determination discussed below, giving the taxpayer the complex task of averaging out prices across exchanges and fiat currencies, or giving the taxpayer the power to choose which market had the best price that day as their data point, there would be one accurate data point to use. The organization would include this number on their written acknowledgment of the donation, ensuring honesty of the taxpayer and, furthermore, accounting for the general decline in value of the cryptocurrency by only allowing deductions for the amount the organization actually receives.

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[81] Anisha Sekar, *Best Ways to Donate to Charity: Save Your Nonprofit 5% or More by Giving Smart*, NERDWALLET, http://perma.cc/5MWD-6VYB (last visited Nov. 22, 2014).
[82] *Id.*

Yet this method does not solve every problem presented by cryptocurrency donations, and is likely unsavory to some taxpayers. For example, what if the organization is slow to get around to converting the bitcoins, and the price has one of its characteristic sudden drops in value after the donation date? In effect this could punish the taxpayer for his altruistic motivation to donate rather than sell on the prior date (though, on the other side of the coin, some taxpayers could luck out and see an increase in price). There might also be rebukes over determining the amount of their deduction based only on one exchange out of so many—what if that exchange is trading at a lower price than some others on the date the bitcoins are converted?

These concerns would likely not be an issue for honest donors, however, because such contingencies can be controlled. For example, donors can contract with the charitable organization to set a date by which it will convert the bitcoins or determine which exchange it will use, much like a donation agreement imposing covenants on how a donation may be used. In short, this method of valuation might require an extra step for donors to ensure that their donation value does not decrease, but will go a long way in preventing abuses of the charitable contribution deduction.

Though this method leaves some problems unanswered, it seems to be the easiest method and the most equitable for honest donors.

C. Valuation by appraisal

Having already discussed the two most appropriate potential methods of valuation for Bitcoin donations, it is worthwhile to examine another common method of valuing property donations: appraisal. Though small donations of Bitcoin likely do not need appraisal, at a certain dollar amount appraisal is likely necessary, so this method must also be scrutinized.

IRS Publication 561 provides the clearest description of how the fair market value of various types of property donations is determined.[83] For example, used clothing is valued by reference to the price similar items are sold for in thrift stores, and jewelry is always valued via appraisal.[84] Though the market prices are not as clearly established for Bitcoin as for stock, the nature of Bitcoin is not specialized enough to warrant appraisal at all dollar amounts like jewelry. However, generally an appraisal is necessary for deductions over $5,000.[85]

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[83] INTERNAL REVENUE SERV., Publication 561, DETERMINING THE VALUE OF DONATED PROPERTY (2007).
[84] *Id.*
[85] 26 U.S.C. § 170(f)(11)(C) (2013).

Yet this requirement does not apply to publicly traded securities.[86] Publicly traded securities for the purpose of this exception are defined by reference to § 6050L(a)(2)(B), which defines the term as "securities for which (as of the date of the contribution) market quotations are readily available on an established securities market."[87] The first question, then, is whether Bitcoin is a security. As discussed above, Bitcoin is unlikely to be classified as a security unless the SEC expands its definition—though the definitions given by some regulatory agencies do not always match those determined by others.[88] The latter part of the definition is likely more easily met—despite the concerns already discussed regarding the multitude of markets upon which cryptocurrencies are traded, market quotations, however accurate or inaccurate, do exist on Bitcoin markets.

Beyond meeting the definition of "publicly traded security," Bitcoin would also have to meet one of the three requirements listed in Publication 561 to avoid appraisal over $5,000: the security must be (1) "[l]isted on a stock exchange in which quotations are published on a daily basis," (2) traded in a "national or regional" market with available quotations, or (3) classified as shares of a mutual fund with quotations published in a newspaper.[89] Again, these requirements' applicability to Bitcoin is dubious, especially depending on the scope of the definition of both "stock exchange" and "national or regional" market, as Bitcoin exchanges technically do not qualify as either.

As discussed, bitcoins do resemble stocks in some ways, so it would make sense to ignore these differences as semantics and treat both assets the same way in the context of appraisals, particularly due to the availability of market quotations for both. However, as will be examined below, exactly accurate market quotations of Bitcoin are hard to come by, unlike stocks, particularly due to the multitude of exchanges and lack of a central and accurate quotation source, particularly for historical data. Another important consideration is the potential for preventing the abuses discussed previously by requiring appraisal for donations above $5,000 (or some other appropriate dollar amount, such as $10,000 applicable to nonpublicly traded stock, or $500,000, the next threshold for appraisal requirements).[90] In particular, appraisal of large donations could be particularly effective at catching taxpayers' attempts to adjust their basis in the bitcoins, or at least deter such activity, and would also

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[86] 26 U.S.C. § 170(f)(11)(A)(ii)(I) (2013).

[87] 26 U.S.C. § 6050L(a)(2)(B) (2006).

[88] Nelson, *supra* note 58.

[89] INTERNAL REVENUE SERV., Publication 561, DETERMINING THE VALUE OF DONATED PROPERTY (2007).

[90] *Id.*

prevent users from being able to manipulate a small market and report its price on the date of contribution, as an appraiser would take into account data from all markets available. As such, the method of a qualified appraisal of Bitcoin must be considered.

The first question is what requirements a qualified appraiser of bitcoins must meet. The code defines a qualified appraiser as someone who "has earned an appraisal designation from a recognized professional appraiser organization" or meets the minimum standards dictated in the regulations, who "regularly performs appraisals for which the individual receives compensation," and who meets any other requirements of IRS guidance.[91] Publication 561 further clarifies the minimum requirements of a qualified appraiser, dictating that "the appraiser must have successfully completed college or professional-level coursework relevant to the property being valued," as well as at least two years of experience "buying, selling, or valuing the type of property being valued."[92] It is unclear what sort of coursework would suffice to meet this standard, but one can imagine that traders on Bitcoin exchanges with several years' experience could qualify as appraisers until a tailored determination of the necessary standards is made.

Another important question is what information would be gleaned from the taxpayer and the exchanges in order to make the fair market value determination. Publication 561 requires that qualified appraisals include a description of the property, the date of contribution, the date on which the property was valued, the appraised fair market value on the date of contribution, the method of valuation used, and the specific basis for the valuation, among other information.[93] Information on how the taxpayer obtained the bitcoins, her adjusted basis in the property, and any identifying information on the transaction or third party from which the taxpayer received the bitcoins, would be helpful to require in this context as well, for reasons further analyzed below. Most important among the existing requirements is the method of valuation used and the specific basis of the valuation, not only because this will help to stem abuse by preventing the taxpayer from controlling which market quotations are reported, but also because it will help the IRS to implement a standard method of valuation. As discussed below, the determination of Bitcoin's value under the stock model will likely be a complicated process.

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[91] 26 U.S.C. § 170(f)(11)(E)(ii) (2013).
[92] INTERNAL REVENUE SERV., Publication 561, DETERMINING THE VALUE OF DONATED PROPERTY (2007).
[93] *Id.*

It is worth noting that in reality, this method will tend to merge with the stock valuation method outlined above. This is because the multitude of exchanges and their differences in prices on the Bitcoin market, unlike the better organized and more consistent stock market with only one (or sometimes two or three) exchange for a given security, require a series of judgments to be made in order to value a Bitcoin deduction—a process that functions more like an appraisal than a valuation of a stock's price on the market. The complicated process that donors would have to undertake to use the stock valuation method, and the judgments made therein, will be examined next.

III. WHAT GOES INTO FAIR MARKET VALUE DETERMINATION UNDER THE STOCK VALUATION METHOD?

The value of Bitcoin is not easily determined. The cryptocurrency is traded on multiple different markets, some exchanging in foreign fiat currencies. Generally the prices are close, but sometimes there is a spread of $30 or more. Confusing the issue further is the fact that there is no set formula for its value.

There are some existing sites that average the prices of different exchanges at a given moment, while others simply display the prices at different exchanges next to each other.[94] Yet still, no single place collects data from *every* exchange into one average price—though the website Bitcoin Average comes close, it does not include data from CoinBase, one of the larger exchanges currently active.

Even more troublesome is the lack of historical data available to users on even the most prominent exchanges. Taxpayers are expected to calculate the average price from all transactions that occurred on the donation date, and the only apparent way to do this is to go to Bitcoin Charts, select the Pricechart for an exchange, and load the raw data below the chart.[95] Even so, this method requires substantial computation. The site does not currently show averages for each day across all exchanges, but only one exchange at a time. The taxpayer would thus have to find the average price for the donation date on the 49 different exchanges available, weight those prices by the number of transactions that took place on each exchange that day, and average them out. Currently this appears to be the only possible way for taxpayers to determine the average price on their donation date.

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[94] *See, e.g.*, BITCOIN AVERAGE, http://www.bitcoinaverage.com; BITCOIN CHARTS, http://www.bitcoincharts.com; BITCOINITY, http://www.bitcoinity.org/markets; COINDESK http://www. coindesk.com/price/; OKCOIN, http://www.okcoin.com.

[95] BITCOIN CHARTS, http://www.bitcoincharts.com/charts/bitstampUSD#rg60 ztgSzm1g10zm2g25zv.

Again, there is no such service for any of the other cryptocurrencies. Though the comparatively lower values for other cryptocurrencies make this less of an issue than in Bitcoin, they may grow and others may be created, so the IRS will still need to give taxpayers guidance on how to determine their fair market value without the resources available for Bitcoin.

Thus, if this method is to be used, guidance must be promulgated explaining how the average price on a particular date can be calculated, and which exchanges to include. As there is no exchange upon which Bitcoin is principally dealt, the assumption is that the IRS will choose to have taxpayers factor all of them in. As a result there must be specific guidance as to the steps for utilizing the Bitcoin Charts resource, the steps necessary to achieve an average price, and which markets should be included in the calculation. With the data available, fair market value calculations should not be too difficult to achieve under this method, but clear guidance will be necessary and the possibility of abuse remains.

IV. Strict Substantiation Requirements Will be Necessary to Prevent Abuse

Regardless of which valuation method is ultimately chosen, strict substantiation requirements tailored to the unique nature of Bitcoin are necessary. Currently, taxpayers who donate property are required to maintain receipts from the organization detailing the name of the donee, the date and location of the contribution, and a description of the property.[96] The taxpayer must also keep record of the fair market value of the property at the time of the contribution, and her basis in the property, reduced as appropriate under § 170(e).[97] If the deduction exceeds $500, the taxpayer must also keep record of how the property was acquired and the date of its acquisition.[98]

On the taxpayer's tax return, Form 8283 requires a description of the donated property, the date of contribution, the date the property was acquired, how the donor acquired the property, the donor's basis in the property, the fair market value of the property, and the method used to determine the fair market value.[99]

Yet to address the potential abuses of the charitable contribution deduction for Bitcoin outlined above, far more thorough answers than currently required of property donations must be required from taxpayers

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[96] 26 C.F.R. § 1.170A-13(b)(1) (2014).
[97] 26 C.F.R. § 1.170A-13(b)(2) (2014).
[98] 26 C.F.R. § 1.170A-13(b)(3) (2014).
[99] INTERNAL REVENUE SERV. Form 8283, *Noncash Charitable Contributions*, http://perma.cc/8TQW-C2R4.

as to how they acquired their bitcoins—simply noting that they were purchased or mined is not enough.

Not much can be done about the anonymity of the cryptocurrency, but in an effort to prevent laundering of the bitcoins before donation, the IRS should consider requiring the taxpayer to identify the block chain transaction number and the public wallet key from which they received the bitcoins. Additionally taxpayers could be required to keep record of any identifying information the taxpayer has on the wallet from which they purchased the coins (i.e. a PayPal account to which money was sent in exchange, or a username on an exchange). This could go a long way simply as a deterrent to those less dedicated to the idea of inflating their charitable deduction, and could help the IRS to track the donated bitcoins through the block chain when they suspect malicious activity.

The IRS should also ask taxpayers to report which exchange they purchased the bitcoins on. Again, this could deter those concerned about being caught, but there is the possibility that the IRS could reach agreements with exchanges to verify that certain exchanges took place (or instead could subpoena the information from the exchange).

Such requirements will still not be completely effective in stemming the abuses outlined herein, but coupled with a thorough and specifically-articulated valuation method for deductions, much of it will be prevented and the IRS will have the necessary tools to follow through on suspicious charitable contribution deductions.

CONCLUSION

There are certainly pros and cons to the valuation of Bitcoin under each method proposed, and consideration could also be given to a method not examined here, such as treating cryptocurrencies as foreign currencies strictly for this purpose. The easiest and most straightforward method of valuation would be to follow the used vehicle method. But although this method would help to stem abuse, it has its own flaws and is likely unpalatable to many taxpayers. Thus, the stock valuation model is the more likely result, but its implementation will require comprehensive guidance on fair market value determination, strict requirements for substantiation, and a threshold amount at which appraisal will be required. Though the urgency with which such guidance is promulgated and the strictness of the requirements implemented will depend on the amount of abuse the IRS perceives, the potential for such abuse and confusion is great enough that these issues must be considered.