

# BITCOIN: THE TRADE OF DIGITAL SIGNATURES

SHAHLA HAZRATJEE<sup>†</sup>

*"Bank-paper must be suppressed, and the circulating medium must be restored to the nation to whom it belongs."<sup>1</sup>*

## I. INTRODUCTION

Bitcoin is an online, digital ledger that securely records the transfer of digital signatures, or “Coins”, from one person to another.<sup>2</sup> Since the creation of the Bitcoin system in 2009, Coins<sup>3</sup> have been traded online for money<sup>4</sup>, and are increasingly becoming accepted as a means of payment for economic activity.<sup>5</sup> This new technology has created many legal issues<sup>6</sup> that have not been fully addressed by our courts<sup>7</sup>, regulatory bodies,<sup>8</sup> or state legislatures.<sup>9</sup>

---

<sup>†</sup>Shahla Hazratjee is an LL.B Honors graduate from the University of Hull, United Kingdom, and a J.D. candidate at the University of Houston Law Center, Houston, Texas. The author would like to thank Amr Hassan for introducing her to the wonderful world of Bitcoin and for his support in writing this paper.

<sup>1</sup> Letter from Thomas Jefferson, Pres. of the U.S., to John Wayles Eppes, U.S. Congressman (Sept. 11, 1813) (in *PTJ:RS*, 6:494, on file with author).

<sup>2</sup> Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN 2 (last visited Feb. 5, 2016), <http://www.bitcoin.org/bitcoin.pdf>; *See infra* Parts I.B.-II (explaining how the Bitcoin ledger works and the nature of Coins).

<sup>3</sup> Coins generated by the Bitcoin System are sometimes referred to as Bitcoins but are herein referred to as “Coins.” This is to avoid confusion with the use of the term “Bitcoin” which is used herein to refer to the Bitcoin System on which Coins are recorded and traded.

<sup>4</sup> *See How to Sell Bitcoin*, COINDESK, <http://www.coindesk.com/information/sell-bitcoin> (last updated Oct. 23, 2015) (explaining how to sell Coins through online exchange trades).

<sup>5</sup> *What Can You Buy with Bitcoin?*, COINDESK (Feb. 17, 2015), <http://www.coindesk.com/information/what-can-you-buy-with-bitcoins> (describing how many major e-commerce sites including those of Microsoft, Dell, Overstock.com, and TigerDirect accept Coins as payment).

<sup>6</sup> *Is Bitcoin Legal?*, COINDESK (Aug. 19, 2014), <http://www.coindesk.com/information/is-bitcoin-legal> (“Bitcoin is of interest to law enforcement agencies, tax authorities, and legal regulators, all of which are trying to understand how the cryptocurrency fits into existing frameworks.”).

<sup>7</sup> *See infra* Part II.D (discussing that courts have held that Coins are money or type of money).

<sup>8</sup> *See infra* Part II.C (discussing that Coins are treated as property for tax purposes). *See infra* Part II.E (discussing the implications of regulating Bitcoin under money transmitter regulations).

<sup>9</sup> *See infra* Part II.E (discussing how State Legislatures have approached Bitcoin regulation).

Some analysts have limited the definition of the Coin to an illegitimate black market currency with no government backing.<sup>10</sup> Other analysts have acknowledged its growing use in e-commerce.<sup>11</sup> However, an increasing number of analysts are referring to Bitcoin as “the biggest invention since the internet.”<sup>12</sup> They claim that the application of the Coin goes beyond the use of payment for online goods and services, and can be used to reshape all aspects of commerce.<sup>13</sup> Bitcoin enthusiasts continue to develop software regarding the Coin as a means of payment, as well as further applications of the Coin, referred to as “Bitcoin 2.0”.<sup>14</sup> Bitcoin 2.0 applications envision use of the Bitcoin System as a ledger for recording transfers of stock, real property, and contractual obligations.<sup>15</sup>

As the U.S. legal system struggles to accurately label and analyze the Coin, Bitcoin technology continues to grow and evolve.<sup>16</sup> A survey of our current laws and rules regarding the use of Coins suggests that the Coin has been defined either as a type of “property”<sup>17</sup> that can be used as a “form of money,”<sup>18</sup> or as “private currency.”<sup>19</sup> This comment illustrates the

---

<sup>10</sup> See Tal Yellin, Dominic Aratari & Jose Pagliery, *What is Bitcoin?*, CNN MONEY, <http://money.cnn.com/infographic/technology/what-is-bitcoin/> (last visited Oct. 27, 2015) (restraining the definition of bitcoins to a “new currency”).

<sup>11</sup> *Bitcoin and the Future of Money*, CBS NEWS (Mar. 23, 2014, 1:45 PM), <http://www.cbsnews.com/news/bitcoin-and-the-future-of-money>.

<sup>12</sup> Nina Curley, *How Does Bitcoin Threaten the Global Status Quo?*, WAMDA COMMUNITY POST (June 18, 2013), <http://www.wamda.com/2013/06/how-does-bitcoin-threaten-the-global-status-quo-learn-more-at-the-bitcoin-london-conference> (“‘Bitcoin is the biggest invention since the internet,’ Pamir Gelenbe, Partner at Hummingbird Ventures, asserted ...”). BRIAN KELLY, *THE BITCOIN BIG BANG: HOW ALTERNATIVE CURRENCIES ARE ABOUT TO CHANGE THE WORLD* (John Wiley & Sons 2015) (“Bitcoin has done what no other computer program has done in the history of financial systems—it has automated the role of the middleman.”). Joshua Doguet, *The Nature of The form: Legal and Regulatory Issues Surrounding the Bitcoin Digital Currency System*, 73 LA. L. REV. 1119, 1119 (2013) (“Technology experts have described Bitcoin as a ‘masterpiece of technology’- a work of genius on par with the Mona Lisa.”).

<sup>13</sup> See KELLY, *supra* note 12, at 17-19 (describing the revolutionary nature of Bitcoin technology).

<sup>14</sup> See Doguet *supra* note 12, at 1119-20 (referring to “what the industry calls Bitcoin 2.0”). See Richard Waters, *Bitcoin 2.0 Gives the Dreamers Focus—but only without the Hype*, FIN. TIMES ONLINE (Dec. 4, 2014, 8:01 PM), <http://www.ft.com/intl/cms/s/0/f53524de-7bca-11e4-b6ab-00144feabdc0.html#axzz3RuuJjKPV> (questioning whether “the world [is] ready for Bitcoin 2.0 when it is still struggling to get grips with the 1.0 version?”).

<sup>15</sup> See *infra* Part III (describing the nature of Bitcoin 2.0 applications).

<sup>16</sup> See *infra* Part III (explaining the expansion of the Coin under Bitcoin 2.0 applications).

<sup>17</sup> See *infra* Part II.C (describing how the Internal Revenue Services defines Coins as property).

<sup>18</sup> See *infra* Part II.D.1 (outlining how courts have defined Coins to be money or a type of money).

<sup>19</sup> See *infra* Part II.E.3 (describing how California has recognized Coins as a form of private currency).

inconsistent approaches adopted by regulators and lawmakers that focus on any one characteristic of the Coin, and that subsequently apply to conflicting jurisprudences.<sup>20</sup> For example, the Internal Revenue Service (I.R.S.) applies property jurisprudence to the use of Coins<sup>21</sup>, whereas the United States District Courts and Department of Treasury apply money jurisprudence, acknowledging that Coins are like money, or a form of money.<sup>22</sup> California applies private currency jurisprudence, recognizing Coins as a legal private currency<sup>23</sup>, whereas Texas denies any legally recognized status to Coins as either currency, or money, thereby avoiding any regulation of users of the Bitcoin system.<sup>24</sup>

This comment explores these definitions, and examines how these definitions fail to encompass the potential future uses of the Bitcoin System that are currently being developed.<sup>25</sup> Part I generally explains Bitcoin technology.<sup>26</sup> Part II examines the legality of the use of Coins as a means of exchange<sup>27</sup>, the different approaches taken by our courts and regulatory bodies in determining the treatment of Coin based transactions for tax purposes<sup>28</sup>, money laundering<sup>29</sup> and money transmission.<sup>30</sup> Part III examines the potential uses of Coins under Bitcoin 2.0 technology, and suggests that the only way to successfully regulate Coins in the United States is by broadly defining the Coin to include all current and future uses of the Coin.<sup>31</sup> Part IV discusses a proposed Congressional solution in the

---

<sup>20</sup> See *infra* notes 21-24 and accompanying text.

<sup>21</sup> See INTERNAL REVENUE SERV., NOTICE 2014-21, I.R.S. VIRTUAL CURRENCY GUIDANCE I (Apr. 14, 2014), <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>.

<sup>22</sup> See *Sec. & Exch. Comm'n v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182, at \*1 (E.D. Tex. Aug. 6, 2013) ([Coins] meet the definition of investment contract, and as such, are securities.); *U.S. v. Faiella*, No. 14-cr-243 (JSR), 2014 WL 4100897, at \*1 (S.D. N.Y. Aug. 19, 2014) ("Bitcoin clearly qualifies as 'money' or 'funds...'"). See *Guidance FIN-2013-G001*, U.S. DEPT. OF TREASURY, FIN. CRIMES ENF'T NETWORK, (Mar. 18, 2013), [http://www.fincen.gov/statutes\\_regs/guidance/pdf/FIN-2013-G001.pdf](http://www.fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf).

<sup>23</sup> See *infra* Part II.E.3 (describing the implications of repealing a California ban on private currencies, in the context of Coin use).

<sup>24</sup> See Memorandum from Charles G. Cooper, Banking Comm'r, Tex. Dep't of Banking, to All Virtual Currency Companies Operating or Desiring to Operate in Texas (Apr. 3 2014), <http://www.dob.texas.gov/public/uploads/files/consumer-information/sm1037.pdf> (defining coin as an unregulated form of property); see *infra* Part II.E.2 (discussing how Texas organizes Coin as property).

<sup>25</sup> *Infra* Part III (explaining the use of Bitcoin as a means of transferring contractual obligations).

<sup>26</sup> *Infra* Parts I.A-B.

<sup>27</sup> *Infra* Part II.A.

<sup>28</sup> *Infra* Part II.C.

<sup>29</sup> *Infra* Part II.D.

<sup>30</sup> *Infra* Part II.E.

<sup>31</sup> *Infra* Part III

form of a five-year moratorium on Bitcoin regulation.<sup>32</sup> This comment suggests that Coins should be defined broadly to include all current and future uses of the Coin.<sup>33</sup> Part V concludes that Coins should be broadly defined as property that can be used as a private currency, as money, or to represent ownership of assets, rights, or obligations.<sup>34</sup>

#### A. *What Is Bitcoin Technology?*

In the words of Satoshi Nakamoto (“Nakamoto”), the creator of Bitcoin, Bitcoin is a “peer-to-peer electronic cash system.”<sup>35</sup> The purpose and objective of the Bitcoin System is clearly set out in the Satoshi’s whitepaper as a system designed to eradicate the need for trusting intermediaries while carrying out an array of transactions.<sup>36</sup> As a starting point, the Bitcoin system aims to eliminate the need to go through banks when conducting online payments for goods and services.<sup>37</sup> The following section addresses how the Bitcoin system works to achieve this goal by examining the nature of the Bitcoin System as a means of ledger keeping.<sup>38</sup>

#### B. *The Blockchain Ledger*

The Bitcoin system operates as a self-regulated online ledger of transactions.<sup>39</sup> These transactions are currently denoted by the change of ownership in Coins.<sup>40</sup> This ledger, also referred to as the “block chain,” has certain built-in mechanisms that eradicate the risk of double spending or

---

<sup>32</sup> See *infra* Part IV (highlighting the positive affects of congressional action in the form of a five-year moratorium on Bitcoin regulation).

<sup>33</sup> *Infra* Part V.

<sup>34</sup> *Id.*

<sup>35</sup> Nakamoto, *supra* note 2, at 1 (“[Bitcoin is a] solution to the double-spending problem using a peer-to-peer distributed timestamp server to generate computational proof of the chronological order of transactions.”).

<sup>36</sup> *Id.* (“Commerce on the Internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. While the system works well enough for most transactions, it still suffers from the inherent weaknesses of the trust based model.”).

<sup>37</sup> *Id.*

<sup>38</sup> *Infra* Part I.B.

<sup>39</sup> Nakamoto, *supra* note 2, at 3 (describing the Block chain as a distributed timestamp server on a peer-to-peer basis, using a proof- of-work system to effectively create a ledger of transactions). See *Bitcoin Developer Guide*, BITCOIN, <https://bitcoin.org/en/developer-guide> (last visited Feb. 17, 2015) (“The block chain provides Bitcoin’s public ledger, an ordered and timestamped record of transactions.”).

<sup>40</sup> Nakamoto, *supra* note 2, at 2 (“Each owner transfers the coin to the next by digitally signing a hash of the previous transaction and the public key of the next owner and adding these to the end of the coin.”).

tampering with the master record of all transactions.<sup>41</sup> The technology works on a series of ever changing encrypted puzzles that can be advanced or tampered with only by means of “trial and error” problem solving.<sup>42</sup> Breaking this type of encryption is solely dependent on CPU power, as opposed to some hacking skill.<sup>43</sup> The system is therefore an open, public-operated ledger that secures the validity of the transaction, provided there is more CPU power working in cooperation with the system than trying to attack the system.<sup>44</sup> Furthermore, the incentive for breaking encryptions, and consequently advancing the secure ledger, is the ownership of newly issued Coins.<sup>45</sup> This process is referred to as “mining.”<sup>46</sup> This incentive keeps attackers from working against the system, as they find it more profitable to “play by the rules” to promote the value of the Coins they are awarded through the mining process.<sup>47</sup>

In his white paper, Nakamoto explains that the dynamics of the system only work as long as more CPU power is honestly verifying the ledger.<sup>48</sup> Nakamoto claims that the system is inherently protected, because the ledger keepers who invest their time and energy in the activity of mining are highly motivated to secure their own wealth, by promoting the Bitcoin system and its demand and supply.<sup>49</sup> Nakamoto has addressed the probability that an attacker can change the ledger as “computationally impractical.”<sup>50</sup> Nakamoto also explains the difficulty facing an attacker

---

<sup>41</sup> *Id.* (explaining that the only way to ensure that an earlier owner did not sign any earlier transaction is “to be aware of all transactions.”). See *Bitcoin Developer Guide*, *supra* note 39 (describing the timestamp network of the Blockchain as a means “to protect against double spending and modification of previous transaction records.”).

<sup>42</sup> Nakamoto, *supra* note 2, at 3 (describing the time stamp network and the process of encryption breaking).

<sup>43</sup> *Id.* (describing how the timestamp network, functions to support the efforts of the majority CPU Power); See *Bitcoin Developer Guide*, *supra* note 39 (“The proof of work used in Bitcoin takes advantage of the apparently random nature of cryptographic hashes.”).

<sup>44</sup> See Nakamoto, *supra* note 2, at 3 (describing the way the proof of network software operates).

<sup>45</sup> *Id.* at 4 (“This adds an incentive for nodes to support the network, and provides a way to initially distribute coins into circulation, since there is no central authority to issue them.”).

<sup>46</sup> *Id.* See *Bitcoin Developer Guide*, *supra* note 39 (describing mining as the means whereby new blocks are added to the block chain, making the ledger hard to modify). There is a limited number of Coins that can be mined, and therefore the scarcity of Coins creates a market for them.

<sup>47</sup> *Id.* Nakamoto, *supra* note 2, at 4 (suggesting that there is no incentive for miners to “undermine the system and the validity of [their] own wealth.”). This aspect of the Bitcoin System is described by Nakamoto as ensuring the Bitcoin System is run on a “democracy model.”

<sup>48</sup> Nakamoto, *supra* note 2, at 3 (“Proof-of-work is essentially one-CPU-one-vote.”).

<sup>49</sup> See *id.* at 4.

<sup>50</sup> *Id.* at 6, 8.

who has somehow assembled more CPU power than those playing by the rules.<sup>51</sup> At the very most, even in an event of success, the attacker would be limited to taking back money that the attacker himself had recently spent.<sup>52</sup> Such an attacker would not be able to create “value out of thin air or” take “money that never belonged to” him.<sup>53</sup> Theoretically, the system does not give anyone the ability to create money, because it is not a currency-issuing body: it is merely a record keeping ledger.<sup>54</sup> So in the event of a successful attack, such an attacker would only be able to “double spend,” which Nakamoto quickly points out will not be verified by the other honest ledger keepers in the continuation of the block chain computations.<sup>55</sup>

The only way such a dishonest activity would be able to go unchecked is if the number of dishonest attackers outweighed the number of honest ledger keepers, in which case, the whole Bitcoin system self-destructs into anarchy, and the market of demand and supply would render Coins valueless.<sup>56</sup> Thus, there is no motivation to gather the amount of dishonest CPU power required, just to sacrifice the value of the Coins that such CPU power would generate.<sup>57</sup> Furthermore, as Bitcoin gains popularity and the number of miners and honest advocates for the Bitcoin system increases, such destabilization of the Bitcoin system becomes increasingly more difficult.<sup>58</sup>

The block chain’s main function is to operate as a public ledger that facilitates the transmission of Coins.<sup>59</sup> As such, it is not the operation of the block chain, but the actual use and transmission of Coins that has merited legal intervention.<sup>60</sup> For example, there is a need to prohibit the use of Coins as a tool for money laundering,<sup>61</sup> bypassing security regulations,<sup>62</sup>

---

<sup>51</sup> *Id.* at 4.

<sup>52</sup> *Id.* at 6.

<sup>53</sup> *Id.*

<sup>54</sup> *See id.* (clarifying that a successful attack would “not throw the system open to arbitrary changes”).

<sup>55</sup> *Id.* at 2, 6 (describing that honest ledger keepers would not accept an invalid transaction as payment, would not further a block containing invalid transactions on the block chain).

<sup>56</sup> Nakamoto, *supra* note 2, at 4.

<sup>57</sup> *Id.* (describing the built in “incentive” to honest ledger keeping in the Bitcoin System).

<sup>58</sup> *Id.* at 3 (explaining how the democratic rule of the honest miners will keep the system honest). *See Global Bitcoin Nodes Distribution*, BITNODES, <https://getaddr.bitnodes.io> (last visited Mar. 22, 2015) (The estimated number of traceable honest miners (also referred to as “nodes”) is currently over 6000.).

<sup>59</sup> *See supra* text accompanying note 34.

<sup>60</sup> *See supra* note 6 (“Bitcoin has proven to be a contentious issue for regulators and law enforcers, both of which have targeted the digital currency in an attempt to control its use.”).

<sup>61</sup> *See infra* Part II.D.2 (discussing the use of Coins for money laundering in *U.S. v. Ulbricht*, 31 F. Supp. 3d 540 (S.D.N.Y. 2014)).

and tax evasion.<sup>63</sup> The next section approaches these issues by examining the law regarding the nature and regulation of the Coin.

## II. THE CURRENT NATURE OF THE COIN

The Coin is “a chain of digital signatures” which is unique to and is modified upon each transaction.<sup>64</sup> The Bitcoin ledger is used to record the transmission of the Coin.<sup>65</sup> The Coin has been described as being akin to a long encrypted serial number,<sup>66</sup> and Bitcoin is the system whereby Coins are securely passed from one person to another.<sup>67</sup>

The electronic Coins can be sold, gifted, or otherwise transferred at will in the Bitcoin system.<sup>68</sup> The Coins are generally transferred in return for a certain amount of government issued currency, and the “price” of the Coin is fixed by the general laws of demand and supply, in an unregulated free market for Coins.<sup>69</sup> The Bitcoin system requires the digital signature of a Coin holder before a transaction regarding that Coin is effectuated, giving the holder of the Coin exclusive right to ownership of the Coin.<sup>70</sup> These Coins are stored in the owner’s online account, known as a “wallet.”<sup>71</sup>

The Bitcoin system, therefore, is not a payment system in the rudimentary sense.<sup>72</sup> It is a secure system for the transfer of property—the Coins.<sup>73</sup> The Bitcoin system, for example, can also be used to transfer

---

<sup>62</sup> See *infra* Part II.D.1 (discussing the use of Coins for bypassing Security Exchange Commission Regulations in *SEC v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182 (E.D. Tex. Aug. 6, 2013)).

<sup>63</sup> See *infra* Part II.C.2.

<sup>64</sup> Nakamoto, *supra* note 2, at 2 (“Each owner transfers the coin to the next by digitally signing a hash of the previous transaction and the public key of the next owner and adding these to the end of the coin.”).

<sup>65</sup> *Id.*

<sup>66</sup> See *Bitcoin Developer Guide*, *supra* note 39 (“Each transaction is prefixed by a four-byte transaction version number which tells Bitcoin peers and miners which set of rules to use to validate it.”).

<sup>67</sup> Nakamoto, *supra* note 2, at 8 (proposing Bitcoin as “a system for electronic transactions”).

<sup>68</sup> See *id.* at 2, 8.

<sup>69</sup> See Matthew Boesler, *ANALYST: The Rise of Bitcoin Teaches A Tremendous Lesson About Global Economics*, BUS. INSIDER (Mar. 7, 2013, 11:53 AM), <http://www.businessinsider.com/global-economics-lesson-from-bitcoin-2013-3> (analyzing the rise and fall in Bitcoin prices).

<sup>70</sup> See *Bitcoin Developer Guide*, *supra* note 39 (explaining the process of requesting and making payments using Bitcoin).

<sup>71</sup> *Id.*

<sup>72</sup> See Nakamoto, *supra* note 2, at 2 (describing Bitcoin as a system allowing any two parties to transact directly).

<sup>73</sup> *Id.* at 2.

Coins that represent ownership of real property, or Coins that represent obligations in simple contracts.<sup>74</sup> Nakamoto, and advocates of the Bitcoin System, suggest that the use of Coins to transfer such rights and obligations could eradicate the use of intermediaries, such as banks or escrow agents, and minimize “dependency on outside agents, such as the court system.”<sup>75</sup> Viewing the application of the Coin as potentially affecting more than online payments is essential to evaluating how to regulate the Bitcoin system. This Comment further examines different approaches taken by regulatory bodies,<sup>76</sup> courts,<sup>77</sup> and state legislatures,<sup>78</sup> in their attempts to define and regulate the Coin, as a means of exchange.

#### A. *Coins as a Means of Exchange*

Bitcoin is not a centralized bank authorized to issue currency; nor are Coins government issued currency.<sup>79</sup> Rather, Bitcoin is a system of transferring property, known as the Coin, and that Coin can be used to represent anything.<sup>80</sup> Today, the mainstream application of the Bitcoin system is the transfer of Coins as a means of payment, or otherwise as investments in the speculative value of Coins.<sup>81</sup> This leads to the consideration of whether or not the Coin, or chain of digital signatures, is in fact used either as a private currency<sup>82</sup> or investment property.<sup>83</sup>

---

<sup>74</sup> See *Bitcoin Developer Guide*, *supra* note 39 (describing how Bitcoin can be used to execute an escrow agreement).

<sup>75</sup> See *id.* (noting that several other types of contracts and transactions have been proposed); see also Nakamoto, *supra* note 2, at 2-3 (describing bitcoin as a system allowing any two parties to transact directly).

<sup>76</sup> See *infra* Part II.C.2 (describing the how the I.R.S. has defined Coins).

<sup>77</sup> See *infra* Part II.D (describing how the courts have defined Coins to apply security and money laundering regulations).

<sup>78</sup> See *infra* Part II.E.3 (describing how the California state legislature has defined Coins as private currency).

<sup>79</sup> See 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, 167 (“It is not regulated by a central bank or any other form of governmental authority; instead, the supply of Bitcoins is based on an algorithm which structures a decentralized peer-to-peer transaction system.”).

<sup>80</sup> See Nakamoto, *supra* note 2, at 1 (proposing Bitcoin as “an electronic payment system based on cryptographic proof instead of trust”).

<sup>81</sup> See *What Can You Buy with Bitcoin?*, *supra* note 5 (stating that a purchase of Coins can either be an investment, or the owner will “want to spend it at some point.”).

<sup>82</sup> *Id.*; see *infra* Part II.E.3 (describing how California defines Coins as a private currency).

<sup>83</sup> See *SEC v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013) (establishing that Coins are “funds” for the purpose of investments).



### 1. *Coins as Private Currency*

Despite the lack of a government stamp, the fact that retailers, service providers, online vendors, and employees, are willing to accept Coins as payment for their goods and services is what gives Bitcoin its purchasing power.<sup>84</sup> Speculators can argue whether people will continue to accept these Coins as payment, but the statistics show that Bitcoin and other cryptocurrencies are becoming increasingly accepted in countries all around the world.<sup>85</sup> This has been the approach taken by courts faced by transactions for which payment was made in Coins.<sup>86</sup>

### 2. *SEC v. Shavers & Bitcoin Trust*

Notably, on the 6th of August, 2013, United States District Judge Amos Mazzant of the Eastern District of Texas ruled in *SEC v. Shavers & Bitcoin Trust*, that Coins are “a currency or form of money,” and therefore, fall within the scope of regulation by the Securities and Exchange Commission (SEC).<sup>87</sup> In *Shavers*, the defendant was engaged in the buying and selling of Coins.<sup>88</sup> The Defendant was the founder and operator of Bitcoin Savings and Trust (BTCST), formerly known as First Pirate Savings & Trust.<sup>89</sup> The Defendant argued that he was not involved in soliciting the investment of money, because he solicited investment in

---

<sup>84</sup> See *What Can You Buy with Bitcoin?*, *supra* note 5 (“While in the past trying to find a bitcoin-accepting merchant for the item you want was often tricky or even impossible, there are now growing options for people who don't wish to pick their way through hundreds of listings just to find products vaguely approximating those they want.”).

<sup>85</sup> *Number of Transactions per Day*, BLOCKCHAIN INFO, <https://blockchain.info/charts/n-transactions> (last visited Feb. 17, 2015) (tracking the number of transactions in Coins, as per the Bitcoin Ledger; and quoting high at 115,787 transactions per day as perperon Jan. 16, 2015). Golman Sach's “estimates that more than 100,000 merchants currently take Coin payments globally.” Joon Ian Wong, *Goldman Sachs Report Says Bitcoin Could Shape Future of Finance*, COINDESK (Mar. 11, 2015, 3:52 PM), <http://www.coindesk.com/goldman-sachs-report-says-bitcoin-could-shape-future-of-finance/>.

<sup>86</sup> See *Morici v. Hashfast Tech. LLC*, No. 5:14-CV-00087-EJD, 2015 WL 906005 (N.D. Cal. Feb. 27, 2015) (applying California Business and Professions Code § 17200 to a transaction regarding the purchase of mining equipment effectuated by payment in coins); see also *Hussein v. Coinabul, LLC*, No. 14 C 5735, 2014 WL 7261240, at \*2-5 (N.D. Ill. Dec. 19, 2014) (denying the defendant's motion to dismiss breach of contract claims which were effectuated by payment in coins).

<sup>87</sup> *SEC v. Shavers and Bitcoin Trust*, No. 4:13-CV-416, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013) (this case cite references the Court's ruling over a question of its jurisdiction to hear the case. The case itself was decided 18 September, 2014).

<sup>88</sup> *Id.* at \*1.

<sup>89</sup> *Id.*

Coins, and because all of the transactions were done through the Bitcoin System, “no money ever exchanged hands”.<sup>90</sup> The Court rejected the Defendant’s argument, holding that “investors wishing to invest in BTCST provided an investment of money.”<sup>91</sup> The Court further held that the Defendant “knowingly and intentionally” operated his company “as a sham and a Ponzi scheme”<sup>92</sup> because the Defendant had misled investors about the use of Coins, how promised returns would be generated, “and the safety of [their] investments.”<sup>93</sup> With respect to the use of Coins, which the Court refers to as “Bitcoin,” the Court held:

First, the Court must determine whether the BTCST investments constitute an investment of money. It is clear that Bitcoin can be used as money. It can be used to purchase goods or services, and as [the defendant] stated, used to pay for individual living expenses. The only limitation of Bitcoin is that it is limited to those places that accept it as currency. However, it can also be exchanged for conventional currencies, such as the U.S. dollar, Euro, Yen, and Yuan. Therefore, Bitcoin is a currency or form of money, and investors wishing to invest in BTCST provided an investment of money.<sup>94</sup>

The Court did not hesitate to refer to Coins generated and traded through the Bitcoin System as money, because there was sufficient evidence that Coins “can be used to purchase goods or services,” and “used to pay for individual living expenses.”<sup>95</sup>

As per the Court’s analysis in *Shavers*, Coins can be categorized as a private currency, because they are accepted in exchange for goods and services, despite the lack of a government stamp.<sup>96</sup> However, beyond its use as a means of exchange, for any currency to be recognized as a currency, it must also have value.<sup>97</sup> Coins, which are merely digital

---

<sup>90</sup> *Id.*

<sup>91</sup> *Id.* at \*2.

<sup>92</sup> SEC v. Shavers & Bitcoin Trust, No. 4:13-CV-416, 2014 U.S. Dist. LEXIS 130781, at \*24 (E.D. Tex. Sept. 18, 2014).

<sup>93</sup> *Id.*

<sup>94</sup> SEC v. Shavers & Bitcoin Trust, No. 4:13-CV-416, 2013 U.S. Dist. LEXIS 110018, at \*1 (E.D. Tex. Aug. 6, 2013).

<sup>95</sup> SEC v. Shavers, No. 4:13-CV-416, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013) (The Court also noted that the use of coins is limited only so far as “it is limited to those places that accept it as currency.”).

<sup>96</sup> *Id.* at \*1.

<sup>97</sup> PAUL VIGNA & MICHAEL J. CASEY, THE AGE OF CRYPTOCURRENCY: HOW BITCOIN AND DIGITAL MONEY ARE CHALLENGING THE GLOBAL ECONOMIC ORDER 39 (2015) (describing

signatures, are not guaranteed in value by any centralized authority, nor do they have any intrinsic value like gold or rare jewels. However, because the supply for Coins is limited by design, the market forces of demand and supply for Coins afford to the Coin a price, or value.<sup>98</sup> Thus, Coins have a market value beyond their intrinsic value.<sup>99</sup> As pointed out by the District Court in *Shavers*, it is the value accorded by market forces that facilitate the acceptance of Coins as a means of payment.<sup>100</sup>

### 3. *The Coins' Appeal as Currency*

For a number of practical reasons, the use of Coins as currency is appealing to the parties of any financial transaction.<sup>101</sup> First, it removes the use of the middle-man banking agency, and thus, reduces, if not eradicates, transaction costs.<sup>102</sup> Second, the Bitcoin System allows pseudonymous transactions.<sup>103</sup> Charities and political campaigns have begun to accept donations in Coins, so as to allow their contributors to make pseudonymous donations.<sup>104</sup> The pseudonymous nature of Bitcoin transactions has also attracted drug dealers<sup>105</sup> and gambling forums, as well as consumers and employers that are on the legitimate political pursuit to disengage the auspice of the government.<sup>106</sup>

---

the benchmarks required for currency to be recognized as money, namely that “it must function as a medium of exchange, a unit of account and a store of value”).

<sup>98</sup> *Id.* at 24-25.

<sup>99</sup> *Id.* at 26.

<sup>100</sup> See *Shavers*, 2013 WL 4028182, at \*2 (“It can be used to purchase goods or services, and as [the defendant] stated, used to pay for individual living expenses.”).

<sup>101</sup> See Nakamoto, *supra* note 2, at 1-2 (“Transactions that are computationally impractical to reverse would protect sellers from fraud, and routine escrow mechanisms could easily be implemented to protect buyers.”).

<sup>102</sup> *Id.* at 1 (stating that the current banking system of trust entails high transaction cost and cannot guarantee completely irreversible transactions, because mediation is unavoidable).

<sup>103</sup> See Joshua Brustein, *Bitcoin May Not Be So Anonymous, After All*, BLOOMBERG BUS. (Aug. 27, 2013), <http://www.bloomberg.com/bw/articles/2013-08-27/bitcoin-may-not-be-so-anonymous-after-all> (describing the transparency of a public ledger and the degrees of privacy in Bitcoin transactions).

<sup>104</sup> See Lee E. Goodman, *Advisory Opinion 2014-2*, FED. ELECTION COMM’N (May 8, 2014) available at <http://saos.fec.gov/aodocs/2014-02.pdf> (concluding that Coins can be accepted as ‘contributions’ by political parties, under the Federal Election Campaign Act of 1971).

<sup>105</sup> See Dion, *supra* note 79, at 186 (highlighting the use of bitcoin as a black market currency); see also Johnathan Lane, *Bitcoin, Silk Road, and the Need For A New Approach To Virtual Currency Regulation*, 8 CHARLESTON L. REV. 511, 523-31 (2014) (detailing the investigation and enforcement action regarding illegal transaction on an online black market).

<sup>106</sup> See Bob Swarup, *Why Regulation Could Help Bitcoin*, COINDESK (Mar. 16, 2014, 11:07 AM), <http://www.coindesk.com/regulation-help-bitcoin/> (describing the decentralization theories behind Bitcoin).

Although users can buy and sell under a pseudonym, Coins are highly traceable.<sup>107</sup> Users are warned to take precautions to guard their privacy, because “Bitcoin works with an unprecedented level of transparency that [with which] most people are not used to dealing.”<sup>108</sup> Once an address or wallet is used for a transaction, it becomes “tainted by the history of all transactions” the user was involved in, and the balance and all transaction history becomes available for anyone with access to the wallet to see.<sup>109</sup> Thus, Coins are anonymous like cash, but extremely traceable, unlike any other traditional currency.<sup>110</sup> The use of Coins for illegal transactions has proven to be helpful to enforcement agencies in tracing the illegal origin of laundered money.<sup>111</sup>

Third, Bitcoin has also appealed to individuals in the developing world whose own currency or financial infrastructure is less secure and less reliable than what Bitcoin can provide.<sup>112</sup> Generally, Bitcoin transactions encompass both the benefits and risks of non-regulated cash-in-hand transactions and the efficient dynamics of online payments.<sup>113</sup> Those characteristics, whether good or bad for our society,<sup>114</sup> appeal to individuals all around the world, and to buyers and sellers alike.<sup>115</sup>

The status of Coins as a means of exchange has been verified by the U.S. District Courts in both Texas and New York.<sup>116</sup> A number of government agencies have determined that Coins are assets used for the

---

<sup>107</sup> See Dion, *supra* note 79, at 167-68 (“Bitcoin can be traced through every address that held it; however, the ownership of each address remains anonymous.”).

<sup>108</sup> *Protect Your Privacy*, BITCOIN, <https://bitcoin.org/en/protect-your-privacy> (last visited Feb. 17, 2015).

<sup>109</sup> *Id.*

<sup>110</sup> See Dion, *supra* note 79, at 167-68 (“Bitcoin can be traced through every address that held it; however, the ownership of each address remains anonymous.”).

<sup>111</sup> For example, the true identity of the mastermind behind the black market website, Silk Road, was arrested in the sci-fi section of a public library in San Francisco, when he logged in on his computer as the mastermind. Once his identity was uncovered, the enforcement officials had no trouble tracing all of the illegal activities he engaged in back to him, via his Bitcoin receipts and payments. See Lane, *supra* note 105, at 526-28 (detailing how the law enforcement tracked the culprit).

<sup>112</sup> See VIGNA & CASEY, *supra* note 97 (explaining why some governments might fear the Bitcoin replacing their own legal tender as a more stable and efficient currency).

<sup>113</sup> *Id.* at 298-301 (detailing the arguments for and against bitcoin).

<sup>114</sup> *Id.*

<sup>115</sup> See Nakamoto, *supra* note 2 at 1 (“Transactions that are computationally impractical to reverse would protect sellers from fraud, and routine escrow mechanisms could easily be implemented to protect buyers.”).

<sup>116</sup> *Shavers*, 2013 WL 4028182, at \*2 (“[Coins] meet the definition of investment contract, and as such, are securities.”); *U.S. v. Faiella*, 39 F. Supp. 3d. 544, 545 (S.D.N.Y. 2014) (“Bitcoin clearly qualifies as ‘money’ or ‘funds’”) (citing *SEC v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013)).

appreciation of wealth and a means of exchange.<sup>117</sup> However, the ambit of regulations seems to slightly differ based on the line of jurisprudence adopted. For example, the I.R.S. has refrained from taxing Coins as a currency, and has instead required capital gains taxation of investments in Bitcoin property. However, the I.R.S. has recognized the use of Coins for remuneration and payment for services, thus attributing to Coins at least some characteristics akin to a type of money or private currency.<sup>118</sup> The inconsistencies between the regulations adopted and the different characteristics of the Coin become more apparent when we consider that the use of Coins is greatly expanded beyond a means of payment, under Bitcoin 2.0 applications. As an initial review of approaches the traditional use of the Coin as a means of exchange, the next section considers the Coin's use as a private currency in America.<sup>119</sup>

### B. Coins and Counterfeiting Laws

The United States Constitution gives Congress the sole power “[t]o coin [m]oney” and “regulate the [v]alue thereof.”<sup>120</sup> The Supreme Court of the United States has also identified constitutional grounds whereby Congress may “restrain, by suitable enactments, the circulation as money of any notes not issued under its own authority.”<sup>121</sup> This authority is embedded in the power of Congress to provide a currency for the whole country.<sup>122</sup> One means of restricting private currency is under counterfeiting laws.<sup>123</sup> Counterfeiting laws prohibit the direct copying, misrepresentation as, or issuing of original designs, intended to either purport legitimacy of the United States of America, or compete with United States legal tender.<sup>124</sup> Bitcoin is strongly advocated as a non-government

---

<sup>117</sup> *Guidance FIN-2013-G001*, *supra* note 22. See Goodman, *supra* note 104.

<sup>118</sup> I.R.S. Virtual Currency Guidance, 2014-16 I.R.B. 938 (2014) (stating that “virtual currency paid by an employer as remuneration for services constitute wages for employment tax purposes”).

<sup>119</sup> See *infra* Part II.B.

<sup>120</sup> U.S. CONST. art. I, § 8, cl. 5.

<sup>121</sup> *Veazie Bank v. Fenno*, 75 U.S. 533, 549 (1869) (detailing the breadth of Congress’ Constitutional power over currency).

<sup>122</sup> *Id.* at 548.

<sup>123</sup> See 18 U.S.C. § 486 (2015) (“Whoever, except as authorized by law, makes or utters or passes, or attempts to utter or pass, any coins of gold or silver or other metal, or alloys of metals, intended for use as current money, whether in the resemblance of coins of the United States or of foreign countries, or of original design, shall be fined under this title or imprisoned not more than five years, or both.”).

<sup>124</sup> *Id.* But see Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH. L.J. 159, 192 (2011) (suggesting that § 486 and other counterfeiting provisions only applies to physical currency that resembles official currency).

associated decentralized system of payment.<sup>125</sup> As such, it seems that the Coins can not purport legitimacy of the United States, nor can Bitcoin be the direct copying or misrepresentation as United States legal tender,<sup>126</sup> because there is no government issued online currency that Coins could be imitating.<sup>127</sup> For all practical purposes, this issue is not relevant to the approaches taken by courts, regulatory bodies and State Legislatures, and is therefore beyond the scope of this comment.<sup>128</sup>

Beyond the implications of counterfeiting laws, there is no doubt that Congress has the power to partially or completely restrict the use of Coins in the United States.<sup>129</sup> Although, the practicality of enforcing such a ban seems difficult, this sort of Congressional action would go a long way towards hindering the viability of the currency as a legitimate cryptocurrency.<sup>130</sup> Notably, this has not been the approach adopted by the I.R.S.<sup>131</sup> nor the U.S. Department of Treasury.<sup>132</sup>

---

<sup>125</sup> See *What is Bitcoin?*, COINDESK, <http://www.coindesk.com/information/what-is-bitcoin/> (last updated Mar. 20, 2015) (“Bitcoin is a form of digital currency, created and held electronically. No one controls it. Bitcoins aren’t printed, like dollars or euros – they’re produced by people . . . running computers all around the world, using software that solves mathematical problems.”).

<sup>126</sup> A recent example of the application of these laws is the case regarding the private currency, “Liberty Dollars.” See generally *United States v. von Nothaus*, No. 5:09CR27-RLV, 2014 WL 5817559, at \*1 (W.D.N.C. Nov. 10, 2014) (finding the issuing body of the local private currency Liberty Dollars, guilty of trying to pass off the silver coins as U.S. currency).

<sup>127</sup> That is not to say that the U.S. government could not initiate its own version of online currency based on the Bitcoin model. Indeed, many advocates for cryptocurrency see the optimum future of cryptocurrencies leading to that very end. See Robert McMillan, *Instead of Fighting Bitcoin, the US Could Make Its Own Digital Currency*, WIRED (Dec. 12, 2014, 6:30 am) <http://www.wired.com/2014/12/t-coin/> (explaining that such a system would benefit both from the legitimacy of the government and the limited supply of the Bitcoin system).

<sup>128</sup> See Doguet, *supra* note 12, at 1134-36.

<sup>129</sup> But see 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 implications of a government ban).

<sup>130</sup> See *id.* (Suggesting that “a government ban on bitcoin would be about as effective as alcohol prohibition was in the 1920s.”). A ban on the use of Coins in the United States could force the value of the Coins to come plummeting down or otherwise discourage vendors from accepting Coins as payment.

<sup>131</sup> See *infra* Part II.C.2 (explaining that the I.R.S. has recognized the use of Coin as a means of investment, and of payment for goods and services).

<sup>132</sup> See *infra* Part II.E (explaining that the U.S. Department of Treasury has suggested the application of money transmitter laws to Bitcoin users).

### C. Taxing Private Currency vs. Taxing Coins

Despite the theoretical challenges to Bitcoin under federal laws,<sup>133</sup> some lawmakers have adopted the approach that Coins are a legitimate and legal private currency,<sup>134</sup> and should be regulated as such. The laws and regulations that apply to private currencies operating in the U.S. are limited to I.R.S. treatment of private currencies for tax purposes.<sup>135</sup> The I.R.S. treats income in private currencies as income, valued against their corresponding dollar value.<sup>136</sup> However, the I.R.S. has taken a different approach to Bitcoin, categorizing Coins as capital assets, instead of a type of private currency.<sup>137</sup> The next section first examines the legal treatment of private currencies operating in the U.S., and then discusses the difference between the approach to private currencies and Coins as adopted by the I.R.S..<sup>138</sup>

#### 1. I.R.S. Treatment Of Private Currencies

In the U.S., private currency systems such as the Ithaca Hours program in Ithaca, New York,<sup>139</sup> and the BerkShare currency of South Berkshire County, Massachusetts,<sup>140</sup> operate as community specific currencies aimed to promote the commerce in their respective communities.<sup>141</sup> These systems are based on a community barter system

---

<sup>133</sup> Some legal analysts have also challenged the legitimacy of Coins under the application of the Stamp Payments Act of 1862. This debate is beyond the scope of this Comment, but for a full discussion see Doguet, *supra* note 12, at 1134-36 (outlining the arguments for and against why Bitcoin would survive a challenge under the Stamp Payments Act concluding that Bitcoin is unlikely to be challenged by the Stamp Act because “the arguments for bringing Bitcoin within its purview are overwhelmingly outweighed by the arguments against doing so.”).

<sup>134</sup> *Infra* Part II.E.3.

<sup>135</sup> See *infra* notes 139-147 and accompanying text.

<sup>136</sup> See *United States v. von Nothaus*, No. 5:09CR27-RLV, 2014 WL 5817559, at \*4 n.11 (W.D.N.C. Nov. 10, 2014) (accepting the FBI’s evidence regarding Ithaca Hours, a type of private currency, that “the only legal requirement for the Ithaca Hours was that individuals report whatever is gained to the Internal Revenue Service”).

<sup>137</sup> *Infra* Part II.C.2 (discussing I.R.S. treatment of Coins as property).

<sup>138</sup> *Infra* Part II.C.1-2.

<sup>139</sup> Paul Glover, *Creating Community Economics with Local Currency*, ITHACA HOURS, <http://www.ithacahours.com> (last visited Feb. 18, 2015).

<sup>140</sup> *What Are BerkShares?*, BERKSHARES, INC., <http://www.berkshares.org> (last visited Feb. 18, 2015) [hereinafter *BerkShares*].

<sup>141</sup> See Glover, *supra* note 139; see also *BerkShares*, *supra* note 140.

model and have fixed equivalent values tied to the U.S. Dollar.<sup>142</sup> These private currencies do not stand in competition to federally issued currency, because they merely serve as a means of cooperation in their respective communities.<sup>143</sup> Local currencies, like Ithaca Hours and BerkShares, are limited by design to serving their localities.<sup>144</sup>

Beyond the limits of counterfeiting laws and the I.R.S.'s insistence on the inclusion of private currency in taxable income, lawmakers have not applied specific regulations to the operation or issuance of private currencies.<sup>145</sup> Paul Glover, the founder for Ithaca Hours, states on his website:

HOURS are legal . . . I.R.S. and FED officials have been contacted by media, and repeatedly have said there is no prohibition of local currency, as long as it does not look like dollars, as long as denominations are at least \$1.00 value, and if it is regarded as taxable income.<sup>146</sup>

## 2. *I.R.S. Treatment Of Coins*

Despite labeling cryptocurrencies as virtual “currencies,” the I.R.S. treats physical, local currencies and cryptocurrencies, such as Bitcoin, differently.<sup>147</sup> Currently, the I.R.S. takes the following position: “For federal tax purposes, virtual currency is treated as property . . . general tax principles applicable to property transactions apply to transactions using virtual currency.”<sup>148</sup> The I.R.S. advises that an individual must declare a capital gain, or may declare a capital loss, on the sale of the “capital asset,” i.e. the Coin.<sup>149</sup> An individual “must, in computing gross income, include

---

<sup>142</sup> Vada Waters Lindsey, *The Burden of Being Poor: Increased Tax Liability? The Taxation of Self-Help Programs*, 9 KAN. J.L. & PUB. POL’Y 225, 230-32 (1999) (explaining the use of these currencies to function as a barter exchange).

<sup>143</sup> See Glover, *supra* note 139; see also *BerkShares*, *supra* note 140.

<sup>144</sup> See *BerkShares*, *supra* note 140; see also Patricia E. Salkin, *Municipal Regulation of Formula Businesses: Creating and Protecting Communities*, 58 CASE W. RES. L. REV. 1251, 1287 (2008) (“[Businesses that also operate outside of the physical boundaries of the Ithaca or BerkShare communities] are unlikely to sign onto such programs because the currencies cannot be used by corporations outside of the host community.”).

<sup>145</sup> See Cara R. Baros, *Barter, Bearer, and Bitcoin: The Likely Future of Stateless Virtual Money*, 23 U. MIAMI BUS. L. REV. 201, 208 (2014) (explaining the difference between Barter and Bitcoin in terms of treatment by I.R.S.).

<sup>146</sup> Glover, *supra* note 139.

<sup>147</sup> See Baros, *supra* note 145, at 208 (explaining the difference between Barter and Bitcoin in terms of treatment by the I.R.S.).

<sup>148</sup> I.R.S. Notice 2014-21, 2014-16 I.R.B. 938 (Mar. 26, 2014).

<sup>149</sup> *Id.*



the fair market value of the virtual currency, measured in U.S. dollars, as of the date that the virtual currency was received.”<sup>150</sup> Furthermore, for computation of future gain or loss, a person who successfully mines Coins must use the fair market value of the Coin at the time mined, as the basis for computation of future gain or loss.<sup>151</sup>

The difference in treatment illustrates some of the characteristics of the Bitcoin System that are fundamentally different from traditional private currencies. First, Coins are not weighed against social utility of any one locality, but has its own fluctuating market value.<sup>152</sup> This makes purchasing and selling Coins as a means of speculative investment, possible. Furthermore, traditional private currencies are printed and regulated by a local central authority or company,<sup>153</sup> unlike Coins. The Bitcoin system has neither owner nor authority, except for the community which voluntarily adopts the charge of its upkeep.<sup>154</sup> This also means that the Coin has no corresponding obligation to be paid out on, and is, as such, non-redeemable.<sup>155</sup> Although other differences between Coins and traditional private currencies exist,<sup>156</sup> the difference in I.R.S. treatment seems to focus on (i) the lack of a central issuing body for Coins; and (ii) the fact that the value of Coins is determined by free market demand, and supply, as opposed to directly linked to the U.S. Dollar.<sup>157</sup>

---

<sup>150</sup> *Id.*

<sup>151</sup> See Baros, *supra* note, 145 at 222.

<sup>152</sup> *Id.* at 203.

<sup>153</sup> See *BerkShares*, *supra* note 140 (“BerkShares, Inc. is the place-based, democratically structured non-profit organization that issues BerkShares, a local currency for the Berkshire Region.”); see also *ITHACA JOURNAL; An Alternative to Cash, Beyond Banks or Barter*, N.Y. TIMES (May 31, 1993), <http://www.nytimes.com/1993/05/31/nyregion/ithaca-journal-an-alternative-to-cash-beyond-banks-or-barter.html>.

<sup>154</sup> See Nakamoto, *supra* note 2, at 3.

<sup>155</sup> *Id.* (describing Bitcoin as a peer to peer ledger keeping system).

<sup>156</sup> Unlike physical private currencies, the Bitcoin community knows no physical boundaries either within or outside the United States, and has been picking up vendors’ support in a number of countries and a diverse array of markets around the world. See VIGNA & CASEY, *supra* note 97, at 69-96. Also, unlike private local currencies, Coins are competing as a medium of exchange with the currency of nations. See Nikolei M. Kaplanov, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation*, 25 LOY. CONSUMER L. REV. 111, 123-24 (2012) (“By providing goods or services in exchange for bitcoins rather than dollars or other currencies through a simple offeror-offeree contract, merchants and individuals can obtain bitcoins and spend them elsewhere.”). Other stark differences between Coins and Ithaca Hours or BerkShares arise in the lack of a physical “coin” in the Bitcoin system unlike the “printed” Ithaca Hour or Berkshare. See Lewis D. Solomon, *Local Currency: A Legal and Policy Analysis*, 5 KAN. J.L. & PUB. POL’Y 59, 82 (1996) (discussing use and authorization of localized currency); see also Nakamoto, *supra* note 2, at 1.

<sup>157</sup> See Baros, *supra* note 145, at 208 (2014) (explaining the difference between Barter and Bitcoin in terms of treatment by the I.R.S.).

*D. Coins, Security Laws, and Money Laundering Laws*

The debate as to the true nature of Coins only becomes more complex when we consider the applications of money laundering laws to Bitcoin transactions.<sup>158</sup> Whereas, the I.R.S. has adopted the jurisprudence of property as opposed to currency,<sup>159</sup> courts have rejected the categorization of Coins as property in other contexts. Instead, courts have applied the jurisprudence of money to the use of Coins when asked to enforce contractual obligations, security laws, and money laundering laws.<sup>160</sup>

*1. Securities Exchange Commission v. Shavers & Bitcoin Trust and United States v. Faiella*

Notably, in *Securities and Exchange Commission v. Shavers*, on August 6, 2013, the Eastern District of Texas recognized Coins as "a currency or a form of money" so as to apply Federal security laws to the exchange of Coins.<sup>161</sup>

Furthermore, The United States District Court of the Southern District of New York held in *United States v. Faiella*, on July 9, 2014, that the use of Coins as payment in a "financial transaction" fell within the ambit of money laundering statutes.<sup>162</sup> The court interpreted the plain meaning of movement of "funds" to include the movement of Coins.<sup>163</sup> Thus holding that the use of Coins satisfies the definition for "financial transaction" under 18 U.S.C. § 1956(h), which criminalizes the laundering of monetary instruments.<sup>164</sup>

*2. United States v. Ulbricht*

In a third case, *United States v. Ulbricht*, the Southern District of New York dealt with the nature of the Coin regarding its use in the online

---

<sup>158</sup> See *SEC v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013) ("[Coins] meet the definition of investment contract, and as such, are securities."); see also *U.S. v. Faiella*, 39 F.Supp.3d 544, 545 (S.D.N.Y. Aug. 19, 2014) ("Bitcoin clearly qualifies as 'money' or 'funds'") (citing *SEC*, 2013 WL 4028182, at \*2.)

<sup>159</sup> I.R.S. Notice 2014-21, 2014-16 I.R.B. 938 (Mar. 25, 2014).

<sup>160</sup> See *infra* notes 161-164 and accompanying text.

<sup>161</sup> See *Shavers*, 2013 WL 4028182 at \*2 ("[Coins] meet the definition of investment contract, and as such, are securities.")

<sup>162</sup> *Faiella*, 39 F. Supp. 3d at 545 ("Bitcoin clearly qualifies as 'money' or 'funds'") (citing *SEC*, 2013 WL 4028182, at \*2).

<sup>163</sup> *Id.*

<sup>164</sup> *Id.*

drug trade “Silk Road.”<sup>165</sup> The New York District Court asserted that all Coin transactions conducted in connection with the illegal business were “financial transactions.”<sup>166</sup> The Defendant, in an attempt to escape money laundering implications of running Silk Road, pointed to, amongst other things, the I.R.S. definition of Coins as property.<sup>167</sup> The Defendant argued that because I.R.S. defines Coins as property, Coins cannot fit the definition of “funds” under the relevant criminal statute.<sup>168</sup> The Court, which referred to Coins as “Bitcoins,” shot down the argument, stating:

[N]either the I.R.S. nor FinCEN purport to amend the money laundering statute (nor could they). In any event, neither the I.R.S. nor FinCEN has addressed the question of whether a “financial transaction” can occur with Bitcoins. This Court refers back to the money laundering statute itself and case law interpreting the statute.<sup>169</sup>

Instead of relying on the I.R.S. definition, the court relied on “a plain reading of the statute” to define “financial transaction” broadly.<sup>170</sup> The Court noted that “financial transaction” was defined under the statute to include “all movements of ‘funds’ by any means, or monetary instruments.”<sup>171</sup>

The Court further noted that the term “funds [was] not defined in the statute, and” therefore, looked to the ordinary meaning of the word.<sup>172</sup> Relying on the Cambridge dictionary, the Court defined “funds . . . as money, often money for a specific purpose.”<sup>173</sup> The Court further elaborated, by defining “money” as “an object used to buy things.”<sup>174</sup> The Court concluded that “Bitcoins can be either used directly to pay for certain things or can act as a medium of exchange and be converted into a currency which can pay for things.”<sup>175</sup> They commented on the digital nature of the

---

<sup>165</sup> United States v. Ulbricht, 31 F. Supp. 3d 540 (S.D.N.Y. July 9, 2014) (convicting the defendant: Ross William Ulbricht, a/k/a “Dread Pirate Roberts,” a/k/a “DPR,” a/k/a “Silk Road”). See Lane, *supra* note 105, at 523-31 (detailing the investigation and enforcement action regarding the Silk Road case).

<sup>166</sup> *Ulbricht*, 31 F. Supp. 3d at 570.

<sup>167</sup> *Id.* at 569.

<sup>168</sup> *Id.*

<sup>169</sup> *Id.*

<sup>170</sup> *Id.* at 570.

<sup>171</sup> *Id.*

<sup>172</sup> *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> United States v. Ulbricht, 31 F. Supp. 3d 540, 570 (S.D.N.Y. 2014).

<sup>175</sup> *Id.*

Coins which “constitute something of value.”<sup>176</sup> They further noted that the users of Silk Road were not giving illegal products “away for free,” but were rather “alleged to have sold them.”<sup>177</sup> Thus, the Court relied on the practical use of the Coin as a means of exchange to define its nature, and apply the relevant money laundering laws.<sup>178</sup>

Having considered the different interpretations of the nature of Coins as property, as a type of private currency, and as money, the next section of this Comment focuses on the regulation of Bitcoin as a system of online money transmitters and financial service providers.<sup>179</sup> It examines the application of regulations as suggested by the Financial Crimes Enforcement Network (“FinCEN”), of the U.S. Department of Treasury, and as adopted by State regulatory bodies and State Legislatures.<sup>180</sup>

#### *E. Bitcoin Regulation Under Money Transmitter Laws*

FinCEN is the federal agency charged with combatting money laundering and promoting national security “through the collection, analysis, and dissemination of financial intelligence and strategic use of financial authorities.”<sup>181</sup> On March 18, 2013, FinCEN issued guidance on the application of regulations to transactions in virtual currencies.<sup>182</sup> The FinCEN Guidance (“The Guidance”) defines virtual currency as a “medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency.”<sup>183</sup> This is contrasted against real currency, which is defined by FinCen “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.’”<sup>184</sup> The Guidance seems to focus on the difference between virtual and real currency, on the lack of legal tender status of virtual currencies in any jurisdiction.<sup>185</sup> The Guidance issued by FinCEN also “addresses ‘convertible’ virtual currency,” which

---

<sup>176</sup> *Id.*

<sup>177</sup> *Id.*

<sup>178</sup> *Id.*

<sup>179</sup> *Infra* Part II.E.

<sup>180</sup> *Infra* Part II.E.1-4.

<sup>181</sup> FINCEN, <http://www.fincen.gov> (last visited Mar. 24, 2015). See James H. Freis, Jr., *Strategic Plan of the Financial Crimes Enforcement Network for Fiscal Years 2012-2016*, FINCEN (Mar. 14, 2012), [http://www.fincen.gov/news\\_room/rp/files/Strategic\\_Plan\\_2012-2016\\_508.pdf](http://www.fincen.gov/news_room/rp/files/Strategic_Plan_2012-2016_508.pdf).

<sup>182</sup> *Guidance FIN-2013-G001*, *supra* note 22.

<sup>183</sup> *Id.* at 1.

<sup>184</sup> *Id.*

<sup>185</sup> *Id.*

“either has an equivalent value in real currency, or acts as a substitute for real currency.”<sup>186</sup>

The Guidance focuses on explaining the applicability of the Bank Secrecy Act (BSA) Regulations to the world of cryptocurrencies.<sup>187</sup> The term “money transmitting business” is defined under BSA Regulations to include any “person that provides money transmission services”, or “[a]ny other person engaged in the transfer of funds.”<sup>188</sup> “The term ‘money transmission services’ means the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means.”<sup>189</sup>

The BSA Regulations also stipulate exceptional circumstances when a person would not be deemed a money transmitter for the purpose of the regulations.<sup>190</sup> Under The Guidance document, both “exchangers” and “administrators” of Coins are considered to be money transmitters, unless a limitation or exemption applies.<sup>191</sup> Therefore, an “exchanger” or “administrator” of Coins is generally required to register as a money transmitter in the state where he or she operates, conform to reporting requirements, and adopt anti-money laundering and “know your client” measures, impeding on some of the anonymity built into the Bitcoin system.<sup>192</sup>

The lack of a central Coin issuing authority forces FinCEN to take a “multi-player” regulatory approach in their attempt to regulate the transmission of Coins.<sup>193</sup> The “ecosystem” of Bitcoin has now extended to include a number of different companies and users that transact in Coins and perform services, such as providing wallets for Coin owners, accepting Coins as payment, and forums where users may exchange, buy or sell Coins.<sup>194</sup> FinCEN’s approach requires categorizing all the players in the Bitcoin ecosystem to identify which ones are operating as money

---

<sup>186</sup> *Id.*

<sup>187</sup> *Id.*

<sup>188</sup> 31 C.F.R. § 1010.100(ff)(5)(i)(A)-(B) (2014).

<sup>189</sup> *Id.* at § 1010.100 (ff)(5)(i)(A).

<sup>190</sup> *Id.* at § 1010.100 (ff)(5)(ii).

<sup>191</sup> *Guidance FIN-2013-G001*, *supra* note 22, at 1.

<sup>192</sup> *Id.* at 3.

<sup>193</sup> *See id.* at 2.

<sup>194</sup> Doguet, *supra* note 12, at 1136-39 (describing the “Bitcoin economy”). *See* VIGNA & CASEY, *supra* note 97, at 78-96 (St. Martin’s Press New York 2015) (documenting the path of how innovation “bootstrapped the infrastructure” of the Bitcoin ecosystem).

transmitters.<sup>195</sup> FinCEN has initiated this task by dividing the players into three broad categories: exchangers, administrators, and users.<sup>196</sup>

An exchanger has been defined under the Guidance to mean, “a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency.”<sup>197</sup> An administrator has been defined 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.”<sup>198</sup> The Guidance also defines a user of virtual currency as, a person that obtains virtual currency to purchase goods or services, clarifying that users do not need to comport with the reporting and BSA requirements.<sup>199</sup>

Further interpretations of the March 18, 2013, Guidance have since been issued by FinCEN, in the form of administrative rulings.<sup>200</sup> The first of two rulings issued on January 30, 2014, clarified that miners who “mine” convertible virtual currency solely for their own purposes, fall within the category of “users”, and are therefore not money transmitters for the purposes of the BSA.<sup>201</sup> The second ruling stated that a “company purchasing and selling convertible virtual currency as an investment exclusively for the company’s benefit is not a money transmitter.”<sup>202</sup> The Administrative Ruling went on to explain:

What is material to the conclusion that a person is not an MSB [Money Services Business] is not the mechanism by which person obtains the convertible virtual currency, but what the person uses the convertible virtual currency for, and for whose benefit . . . activities that, in and of themselves, do not constitute accepting and transmitting currency, funds or the value of funds . . . do not fit within the definition of “money transmission services” and therefore are not subject to FinCEN’s registration, reporting, and

---

<sup>195</sup> See *Guidance FIN-2013-G001*, *supra* note 22, at 2-3.

<sup>196</sup> *Id.* at 1.

<sup>197</sup> *Id.* at 2.

<sup>198</sup> *Id.*

<sup>199</sup> *Id.*

<sup>200</sup> See, e.g., *Ruling FIN-2014-R011*, FINCEN (Oct. 27, 2014),

[http://www.fincen.gov/news\\_room/rp/rulings/html/FIN-2014-R011.html](http://www.fincen.gov/news_room/rp/rulings/html/FIN-2014-R011.html); *Ruling FIN-2014-R012*, FINCEN (Oct. 27, 2014), [http://www.fincen.gov/news\\_room/rp/rulings/html/FIN-2014-R012.html](http://www.fincen.gov/news_room/rp/rulings/html/FIN-2014-R012.html).

<sup>201</sup> *FIN-2014-R001*, FINCEN 3 (Jan. 30, 2014),

[http://www.fincen.gov/news\\_room/rp/rulings/pdf/FIN-2014-R001.pdf](http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R001.pdf).

<sup>202</sup> *FinCEN Publishes Two Rulings on Virtual Currency Miners and Investors*, FINCEN (Jan. 30, 2014), [http://www.fincen.gov/news\\_room/nr/html/20140130.html](http://www.fincen.gov/news_room/nr/html/20140130.html).

recordkeeping regulations for MSBs [Money Services Businesses].<sup>203</sup>

The FinCEN's objective of categorizing Bitcoin users to regulate money laundering and money transmitters may be frustrated by the application of The Guidance on the state level.<sup>204</sup> Where some states do not regulate money transmitter businesses,<sup>205</sup> other states may avoid application of money transmitter regulations to Coin transactions by narrowly defining the legal nature of Coins.<sup>206</sup>

On the state level, the Bitcoin ecosystem also raises consumer protection concerns.<sup>207</sup> Many businesses operating in the Bitcoin ecosystem provide online accounts for consumers to store Coins, and forums where Coins can be traded for goods and services, or traded for government issued currencies.<sup>208</sup> These financial services are being provided by a number of different companies.<sup>209</sup> In many states, the assumption of these financial service functions by the Bitcoin ecosystem has also prompted the application of financial service regulations.<sup>210</sup> The next sections of this comment examines the different approaches to Bitcoin regulation, adopted by New York, Texas, California, and Vermont.<sup>211</sup>

### 1. Bitcoin Regulation In New York

The New York Department of Financial Services (NYDFS) has introduced a "Bitlicense" framework to protect customers and investors

---

<sup>203</sup> *FIN-2014-R001*, *supra* note 201, at 3.

<sup>204</sup> *See Is Bitcoin Legal?*, *supra* note 6 (discussing the implications of FinCEN regulations in States where money transmitters are not regulated); Faisal Khan, *What New FinCEN Guidance Means for US Bitcoin Companies*, COINDESK (Oct. 31, 2014, 4:25 PM), <http://www.coindesk.com/new-fincen-guidance-means-us-bitcoin-companies/> (describing how the federal government has "paved the way for states" to declare Bitcoin exchange companies as money transmitters).

<sup>205</sup> *Is Bitcoin Legal?*, *supra* note 6 ("New Mexico, South Carolina, and Montana, don't regulate money transmitting businesses.").

<sup>206</sup> *See infra* Part II.E.2; (discussing how Texas has defined Coins as property, and not money).

<sup>207</sup> *See Supervisory Memorandum – 1037*, *supra* note 24, at 4-5.

<sup>208</sup> *See supra* note 194 and accompanying text.

<sup>209</sup> *Id.*

<sup>210</sup> *See Excerpts From Superintendent Lawsky's Remarks On Virtual Currency and Bitcoin Regulation In New York City*, N.Y. DEPT. OF FIN. SERV., (Oct. 14, 2014), [http://www.dfs.ny.gov/about/speeches\\_testimony/sp141014.htm](http://www.dfs.ny.gov/about/speeches_testimony/sp141014.htm) [hereinafter *Excerpts*] (explaining concerns from NYDFS regarding consumer protection).

<sup>211</sup> *Infra* Parts II.E.1-4.

who are relying on intermediary Bitcoin businesses in New York.<sup>212</sup> The legislation requires the obtainment of a “Bitlicense” by the following Bitcoin users and service providers: 1) businesses that receive, transmit, store or convert Virtual Currency for customers; (2) businesses that buy and sell “Virtual Currency as a customer business;” (3) businesses that control, administer or issue a Virtual Currency; or (4) businesses that perform conversions between bitcoin and fiat or any value exchange.<sup>213</sup> In order to maintain a license, the regulations require Bitlicense holders to implement cyber security measures, anti-money laundering procedures, financial reporting standards, and consumer protection measures, such as disclosure to consumers of risks and details of services.<sup>214</sup> The regulations also call for thorough account holder scrutiny and annual audits.<sup>215</sup>

Prior to adopting the regulations, the NYDFS allowed for an extended comment period, and kept an ongoing dialogue open with many Bitcoin advocates and users.<sup>216</sup> Although some minor caveats to the original proposed draft were made clear, the Department assured commentators that the rules “generally mirror the types of requirements that banks; financial institutions, and money transmitters have to live by – with some alterations owing to the unique nature of virtual currencies.”<sup>217</sup> The Department purported its motive to enforce consumer protection against

---

<sup>212</sup> Stan Higgins, *New York Reveals BitLicense Framework for Bitcoin Businesses*, COINDESK (July 17, 2014, 3:35 PM), <http://www.coindesk.com/new-york-reveals-bitlicense-framework-bitcoin-businesses/> (“[B]itcoin businesses that receive, transmit, store or convert virtual currency for customers; buy and sell virtual currency as a customer business; control, administer or issue a virtual currency; or perform conversions between bitcoin and fiat or any value exchange will need to be licensed to operate in New York.”). See N.Y. COMP. CODES R. & REGS. tit. 23, § 200.1-200.21 (2015).

<sup>213</sup> N.Y. COMP. CODES R. & REGS. tit. 23, § 200.2(q)(1)-(5) (2015).

<sup>214</sup> See *id.* at § 200.8(a) (Licensees will also have to meet capital requirements such as maintaining “at all times such capital . . . as the superintendent determines is sufficient to ensure the financial integrity of the Licensee and its ongoing operations”).

<sup>215</sup> *Id.* at § 200.14-200.15.

<sup>216</sup> See Stan Higgins, *New York Extends Comment Period for BitLicense Proposal*, COINDESK (Aug. 21, 2014, 6:46 PM), <http://www.coindesk.com/new-york-extends-comment-period-bitlicense-proposals/>. Some of the comments were well-founded concerns, which included concerns from software developers for Bitcoin mining as to the effect of the regulations on their businesses and whether the regulations would hurdle their innovation. See *Excerpts, supra* note 210 (discussing some of the well founded concerns). However, some comments were rather emotional, demanding that the state government get their “hands off my bitcoin.” See Ed Evanosich, 3594, N.Y. DEPT. OF FIN. SERV.’S, [http://www.dfs.ny.gov/legal/vcrf\\_end/EFF%20Comment%20-%203594.pdf](http://www.dfs.ny.gov/legal/vcrf_end/EFF%20Comment%20-%203594.pdf) (last visited Feb. 19, 2015).

<sup>217</sup> *Excerpts, supra* note 210.



“financial intermediaries”, operating in the Bitcoin Ecosystem while taking a “technology neutral” position.<sup>218</sup>

To avoid over-reaching, the regulations were revised to ensure the requirements would not apply to non-currency uses of the Bitcoin system.<sup>219</sup> This was interpreted by Bitcoin activists, as the Department’s intent not to regulate 2.0 applications of the Bitcoin System, which may include “smart contracts,” “chain of title products,” and other “data verification implementations of the blockchain.”<sup>220</sup> This was viewed as a positive sign in the agency’s understanding of the future Bitcoin innovations,<sup>221</sup> although, there is still no guidance as to how Bitcoin 2.0 applications will be regulated.<sup>222</sup> However, according to Superintendent Benjamin Lawsky, of New York Financial Services, “when it comes to safeguarding customer money at a financial company – an unregulated world of caveat emptor has never been a sufficient answer.”<sup>223</sup> It seems highly unlikely that any future applications of the Bitcoin System will somehow escape that same “paternal attitude” of State and Federal Regulators.<sup>224</sup>

The deadline to apply for a Bitlicense was August 8, 2015.<sup>225</sup> As of the date of writing, only twenty-two applications have been received by NYDFS, but many Bitcoin businesses have decided not to operate in New York, as a result of the costly license procedure.<sup>226</sup> The full effects of the new regime are yet to be seen. Critics are referring to the costly procedure of obtaining a Bitlicense as both “a necessary evil”, and as a barrier to entry, that is forcing many small start-up companies out of the market.<sup>227</sup>

---

<sup>218</sup> *Id.*

<sup>219</sup> See Marco Santori, *BitLicense 2.0: What The Latest Revisions Mean for Bitcoin Businesses*, COINDESK (Feb. 14, 2015, 4:18 PM), <http://www.coindesk.com/bitlicense-2-0-latest-revisions-mean-bitcoin-businesses/> (analyzing the implications of a Bitlicense regime) (The rules were amended to provide to non-applicability to transactions that would “effectuate non-financial transactions by moving specially-tracked bitcoins from one address to another.”). See N.Y. COMP. CODES R. & REGS. tit. 23, § 200.1-200.21.

<sup>220</sup> Santori, *supra* note 219.

<sup>221</sup> *Id.*

<sup>222</sup> See generally *id.* (analyzing the implications of a Bitlicense regime).

<sup>223</sup> *Excerpts, supra* note 210.

<sup>224</sup> See *infra* Part III (discussing the future potential uses of the Coin under Bitcoin 2.0 applications).

<sup>225</sup> Yessi Bello Perez, *New York Bitcoin Scene Divided As BitLicense Deadline Looms*, COINDESK (Aug. 7, 2015, 11:53 AM), <http://www.coindesk.com/new-york-bitcoin-scene-divided-as-bitlicense-deadline-looms/>.

<sup>226</sup> Pete Rizzo, *NYDFS Receives 22 Initial BitLicense Applications*, COINDESK (Aug. 13, 2015, 6:50 PM), <http://www.coindesk.com/nydfs-22-bitlicense-applications/>; Yessi Bello Perez, *The Real Cost of Applying for a New York BitLicense*, COINDESK (Aug. 13, 2015, 8:40 PM), <http://www.coindesk.com/real-cost-applying-new-york-bitlicense/>.

<sup>227</sup> Perez, *supra* note 225.

## 2. Bitcoin Regulation in Texas

Notably, some states do not regulate money transmitter businesses.<sup>228</sup> Alternatively, Texas advocates are strong for self-regulation, and a free-market approach to the Bitcoin ecosystem, avoiding FinCEN Guidance on regulating Bitcoin money transmitters, by adopting the I.R.S. approach to defining Coins.<sup>229</sup>

In a supervisory memorandum (“The Memorandum”) issued by the Texas Department of Banking in April, 2014, the Texas state agency addressed the implications of state law on virtual currencies under both categories of “Currency Exchange” and “Money Transmission.”<sup>230</sup> The Memorandum focuses on the lack of a centralized issuer to certify or guarantee the value of a Bitcoin.<sup>231</sup> The Memorandum insists that “exchanging virtual currency for sovereign currency is not currency exchange under the Texas Finance Code” which “defines currency for purposes of currency exchange as ‘the coin and paper money of the United States or any country that is designated as legal tender and circulates and is customarily used and accepted as a medium of exchange in the country of issuance.’”<sup>232</sup> The agency simply concludes that because Coins are not “issued by the government of” any country, they do not satisfy the statutory definition of, and cannot be subject to Texas law as, a currency exchange, without an amendment to the statutory definition.<sup>233</sup> Thus, the Memorandum absolves Bitcoin exchanges from the requirement of obtaining currency exchange licenses in Texas.<sup>234</sup> Texas’s position reflects the adoption of Coins’ value as an investment asset, as opposed to that of a currency, much like the approach adopted by the I.R.S..<sup>235</sup> With regard to Bitcoin 2.0 applications, the Memorandum acknowledges that future cryptocurrencies would require their own respective determination, and establishes only a general rule that is applicable to “current” cryptocurrencies.<sup>236</sup> The Memorandum finds that money transmitting, as defined under the Texas Money Services Act (TMSA), does not include exchange for “money or monetary value”, which is defined under the statute to mean, a “currency or a claim that can be converted into currency

---

<sup>228</sup> *Is Bitcoin Legal?*, *supra* note 6 (“New Mexico, South Carolina, and Montana, don’t regulate money transmitting businesses.”).

<sup>229</sup> *Supervisory Memorandum – 1037*, *supra* note 24 at 2-3.

<sup>230</sup> *Id.*

<sup>231</sup> *Id.* at 1.

<sup>232</sup> *Id.* at 2.

<sup>233</sup> *Id.*

<sup>234</sup> *Id.*

<sup>235</sup> *See Notice 2014-21*, *supra* note 21 (classifying virtual currencies as capital assets).

<sup>236</sup> *Supervisory Memorandum – 1037*, *supra* note 24, at 4.

through a financial institution, electronic payments network, or other formal or informal payment system.”<sup>237</sup> The Memorandum concludes that current cryptocurrencies do not satisfy the definition of currencies under the TMSA, and therefore transactions for Coins do not fit the definition of “money transmission.”<sup>238</sup> Texas seems to have effectively bypassed the solution of regulating Bitcoin exchangers and administrators as Money Transmitting Businesses, as suggested by FinCEN, by simply finding that Bitcoin players are not Money Transmitting Businesses.<sup>239</sup>

### 3. *Bitcoin Regulation in California*

California, in direct contrast to Texas, has applied the jurisprudence of local private currencies to Coins.<sup>240</sup> In June 2014, the California Legislature passed Assembly Bill 129, repealing a section from the California Corporations Code, which prohibited the circulation of any money that was not “the lawful money of the United States.”<sup>241</sup> In doing so, California has recognized Coins, amongst others, as a form of legal alternative currency.<sup>242</sup> California’s legislation rejects the I.R.S.’s classification of Coins as non-currency property.<sup>243</sup> Furthermore, California is considering its own regime for requiring companies engaged in Bitcoin related businesses to be licensed with the California Department of Business Oversight.<sup>244</sup> The regime is proposed under California’s Assembly Bill 1326, which was passed by the California Assembly on August 27, 2015, and is now being considered by the California Senate.<sup>245</sup> The regime follows the same framework as the New York Bitlicense, and has been met with the same criticism.<sup>246</sup> The implications of a licensing regime in California, which is known as the heart of technological

---

<sup>237</sup> *Id.* at 3.

<sup>238</sup> *Id.*

<sup>239</sup> *Id.*

<sup>240</sup> See Jack Linshi, *California Lifts Ban on Bitcoin*, TIME (June 30, 2014), <http://time.com/2942212/ca9lifornia-bitcoin-legalize/> (suggesting that all private currencies were illegal in California prior to the passing of the bill).

<sup>241</sup> Assemb. B. 129, 2014, Reg. Sess. (Cal. 2014) (“An act to repeal Section 107 of the Corporations Code, relating to business associations.”).

<sup>242</sup> See *id.* Other types of alternative currencies besides Bitcoin that now fall within the purview of AB 129 include gift cards, reward points, such as are used at shopping malls, and virtual tokens.

<sup>243</sup> See *id.*; Cf. Notice 2014-21, *supra* note 21 (classifying virtual currencies as capital assets).

<sup>244</sup> See Assemb. B. 1326, 2015, Reg. Sess. (Cal. 2015) (“An act to repeal Section 107 of the Corporations Code... relating to currency.”).

<sup>245</sup> *Id.*

<sup>246</sup> Yessi Bello Perez, *California Assemblyman Defends Bitcoin Bill*, COINDESK (Aug. 14, 2015, 11:49 AM), <http://www.coindesk.com/california-assemblyman-defends-bitcoin-bill/>.

innovation, has been heavily objected to by Bitcoin activists as a direct threat to “the future of digital currency experimentation and” blockchain innovation.<sup>247</sup>

#### 4. *Bitcoin Regulation in Vermont*

The confusion caused by these inconsistent approaches to defining Coins, is further illustrated by the recent letter issued by the Department of Financial Regulation of Vermont, to the operators of Vermont’s only Bitcoin Automatic Teller Machine (“ATM”).<sup>248</sup> Prior to the letter, the state had not issued any guidance, nor taken any legislative action to notify Bitcoin users and businesses of the application of laws to Bitcoin transactions. In early 2015, Vermont authorities issued a letter to the ATM operating business, informing the company that as Bitcoin ATM operators, “they may be subject to penalties for operating the [ATM] machine without a money transmitter license.”<sup>249</sup> The CEO of the company in question claims that the state agency has misunderstood their business model, which “doesn’t constitute as a money transmitter.”<sup>250</sup> Given the different approaches to regulation, and the uncertainty in how the regulatory framework of any one state may apply to Bitcoin businesses, “misunderstandings” between businesses and authorities are not surprising.<sup>251</sup> Furthermore, because of such misunderstandings and uncertainties, the potential growth of the Bitcoin related start-up businesses are, at the very least, being discouraged.<sup>252</sup> The following section discusses these concerns in light of Bitcoin 2.0 technological advancements.<sup>253</sup>

---

<sup>247</sup> *Id.*

<sup>248</sup> Pete Rizzo, *Bitcoin ATM Shutdown Spotlights Regulatory Uncertainty In Vermont*, COINDESK (Feb. 17, 2015, 11:59 PM), <http://www.coindesk.com/bitcoin-atm-shutdown-regulation-vermont/> (“The agency has asserted that those involved with the machine were ‘knowingly engaging in a money service business’ without a license, and as such, could face up to three years in prison.”). Bitcoin ATM’s are machines from which Bitcoin owners can exchange U.S. Dollars for Coins, and sell their Coins for U.S. Dollars.

<sup>249</sup> *Id.*

<sup>250</sup> *Id.*

<sup>251</sup> *See generally id.* (Suggesting that the incident calls into question how well regulators understand Bitcoin business models and services).

<sup>252</sup> *See* Bob Swarup, *Why Regulation Could Help Bitcoin*, COINDESK (Mar. 16, 2014, 11:07 AM), <http://www.coindesk.com/regulation-help-bitcoin/> (“The currencies that succeed, therefore, are not those that circumvent the state, but rather those that are legitimized by the state.”).

<sup>253</sup> *Infra* Part III.

## III. THE FUTURE NATURE OF THE COIN—BITCOIN 2.0

The current legal status of Coins has raised many regulatory questions.<sup>254</sup> However, there is more confusion yet to come. Developers and advocates of the Bitcoin System have been working on developing Bitcoin 2.0 systems, whereby the Coin can be programmed into something akin to a modern day software application.<sup>255</sup> By doing so, the Bitcoin ledger system will turn into a means of recording and enforcing contracts.<sup>256</sup> The new innovation envisions a means to create and distribute colored Coins, or “custom currency,” that can be used as gift cards, redeemable reward points, or even a possible representation of ownership of physical assets, or company shares.<sup>257</sup>

An example of one of the promising Bitcoin 2.0 systems is the Ethereum protocol.<sup>258</sup> It is a system that takes the Bitcoin model and adds a layer of programmable computations to each transaction, which can be used for programming secure online transactions of any sort.<sup>259</sup> The multi-purpose protocol provides a platform for “decentralized applications”, and is “open-ended by design.”<sup>260</sup> Its creators “believe that it is extremely well-suited to serving as a foundational layer for a very large number of both financial and non-financial protocols in the years to come.”<sup>261</sup> The decentralized applications of the Ethereum protocol are explained by one of the founders, Vitalik Buterin, in the Ethereum White Paper, as the following:

---

<sup>254</sup> See *Is Bitcoin Legal?*, *supra* note 6 (“[M]any legal authorities are still struggling to understand the cryptocurrency, let alone make laws around it.”).

<sup>255</sup> *Id.*

<sup>256</sup> *Id.* (stating that these projects have not yet become mainstream).

<sup>257</sup> Gideon Greenspan, *Bitcoin Colors — A New Proposal DRAFT*, COINCOLORS 2 (Feb. 2014), <http://coincolors.org> (proposing a means for “colour transfer”). This Bitcoin 2.0 project has been put into effect by the company CoinSpark. See COINSPARK, <http://coinspark.org> (last visited Feb. 19, 2015) (offering software whereby asset transfer and simple contracts can be transferred and created online).

<sup>258</sup> Vitalik Buterin, *A Next Generation Smart Contract & Decentralized Application Platform*, GITHUB, <https://github.com/ethereum/wiki/wiki/White-Paper> (last updated Feb. 16, 2016) (proposing and describing the Ethereum protocol). See Nermin Hajdarbegovic, *Ethereum Launches ‘Cryptocurrency 2.0’ Network*, COINDESK (Jan. 23, 2014, 11:00 AM), <http://www.coindesk.com/ethererum-launches-cryptocurrency-2-0-network/> (“Ethereum takes the capabilities of blockchains to the next level and it will be fascinating to see which applications will be built on top.”).

<sup>259</sup> Buterin, *supra* note 258 (proposing and describing the Ethereum protocol).

<sup>260</sup> *Id.* (claiming that peer-to-peer protocols add an “economic layer” and a “substantial array of applications that have nothing to do with money at all”).

<sup>261</sup> *Id.*

The first category is financial applications, providing users with more powerful ways of managing and entering into contracts using their money. This includes sub-currencies, financial derivatives, hedging contracts, savings wallets, wills, and ultimately even some classes of full-scale employment contracts. The second category is semi-financial applications, where money is involved but there is also a heavy non-monetary side to what is being done; a perfect example is self-enforcing bounties for solutions to computational problems. Finally, there are applications such as online voting and decentralized governance that are not financial at all.<sup>262</sup>

This adaptation of the Bitcoin System has been termed, the “Lego of crypto-finance”<sup>263</sup> and brings with it a brand new array of legal questions about its effects on all areas of law, including contract law, employment law, agency law, probate law, and perhaps even questions relating to our political infrastructure.<sup>264</sup> The legal concerns of the Bitcoin 2.0 system has been described by Buterin, as revolving “around decentralized autonomous corporations.”<sup>265</sup> He identifies the problem as being the lack of ownership of a traditional stake in decentralized bodies.<sup>266</sup> He summarizes the situation by explaining, “[d]ecentralization in general is a very new topic for regulatory agencies, and we've been seeing that all too plainly with Bitcoin. Some laws simply no longer apply, many other laws still do apply, and other laws fall into a murky middle where at least initially it will end up in a regulatory agency's discretion.”<sup>267</sup>

Another example of the adoption of Bitcoin technology in mainstream finance is illustrated by Nasdaq's announcement to incorporate blockchain technology in a project relating to its private companies' business during the last quarter of 2015.<sup>268</sup> Nasdaq has acknowledged the

---

<sup>262</sup> *Id.*

<sup>263</sup> Hajdarbegovic, *supra* note 258. Aaron Sankin, *Your Complete Guide to Bitcoin 2.0*, THE DAILY DOT, <http://www.dailydot.com/business/bitcoin-evolution-future-2-0/> (last updated May 2, 2014, 1:13 AM).

<sup>264</sup> See Pete Rizzo, *Crypto 2.0 in 2015: Turning Bitcoin Theory Into Big Business*, COINDESK (Jan. 3, 2015, 3:49 PM), <http://www.coindesk.com/crypto-2-0-2015-turning-bitcoin-theory-big-business/> (quoting Gideon Greenspan, ““There have been quite a few public stock offerings conducted over bitcoin 2.0 platforms, which violate securities laws in the US and Europe. I think it's just a matter of time before regulators sit up and pay attention.””).

<sup>265</sup> Hajdarbegovic, *supra* note 258.

<sup>266</sup> *Id.*

<sup>267</sup> *Id.*

<sup>268</sup> *Nasdaq Expects to Be First Exchange Using Bitcoin Technology*, BLOOMBERGBUS. (Jul. 23, 2015, 9:56 AM), <http://www.bloomberg.com/news/articles/2015-07-23/nasdaq-expects-to-be-first-exchange-to-use-bitcoin-technology>.

importance that blockchain may have in the future of Wall Street, and states that it would like to “leverage blockchain technology as part of an enterprise-wide initiative.”<sup>269</sup>

The innovation of a secure online transfer system that eradicates double spending<sup>270</sup> may also provide new ways to improve the current U.S. legal system.<sup>271</sup> For example, if Coins are used to represent rights in real property, the Bitcoin 2.0 systems may be able to bring more efficiency to land registration systems by making it impossible to double spend an agreement to sell real property.<sup>272</sup>

Given the U.S. legal system’s lack of a uniform approach to the transmission of Coins,<sup>273</sup> and the theoretically limitless potential of how Bitcoin 2.0 may reshape the way we interact with each other,<sup>274</sup> current regulations seem ill-equipped for the developing Bitcoin technology. This is largely due to an inability to correctly categorize the true nature of the Coin.<sup>275</sup>

Coins function as a type of investment property,<sup>276</sup> a type of private currency,<sup>277</sup> and a type of money.<sup>278</sup> Our current approach to Bitcoin seems to narrowly limit it to one category or the other, focusing on the decentralized nature of the generation of Coins and the non-redeemable value of Coins.<sup>279</sup> However, Bitcoin 2.0 looks to expand the use of the

---

<sup>269</sup> *Id.*

<sup>270</sup> *Bitcoin Developer’s Guide*, *supra* note 39 (describing the timestamp network of the Blockchain as a means “to protect against double spending and modification of previous transaction records.”).

<sup>271</sup> See Robert McMillan, *Instead of Fighting Bitcoin, the US Could Make Its Own Digital Currency*, WIRE (Dec. 12, 2014, 6:30 AM), <http://www.wired.com/2014/12/t-coin/> (explaining that such a currency system would benefit both from the legitimacy of the government and the limited supply of the Bitcoin system).

<sup>272</sup> See Duncan Riley, *Honduras to use Bitcoin Blockchain tech to run its land registry*, Siliconangle (May 17, 2015), <http://siliconangle.com/blog/2015/05/17/honduras-to-use-bitcoin-blockchain-tech-to-run-its-land-registry/> (discussing whether the use of Bitcoin 2.0 technology is the solution to prevent fraud in Honduras’ land registry system).

<sup>273</sup> See *supra* Part II.A-E (discussing how regulators have taken different approaches to Bitcoin regulation).

<sup>274</sup> See *supra* notes 251-58 and accompanying text.

<sup>275</sup> See *supra* Parts II.A-E (discussing how regulators and lawmakers have adopted different jurisprudences when defining the nature of Coins).

<sup>276</sup> See *Shavers*, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013) (“[Coins] meet the definition of investment contract, and as such, are securities.”).

<sup>277</sup> See *supra* Part II.E.3 (discussing California’s acceptance of Coins as a private currency).

<sup>278</sup> See *supra* Part II.D (discussing that courts have held that Coins are “money or type of money”).

<sup>279</sup> See *supra* Part II.A-E (discussing how regulators and lawmakers have adopted different jurisprudences when defining the nature of Coins).

Coin to allow the transfer of a wide range of rights and obligations.<sup>280</sup> In light of Bitcoin 2.0, it seems futile to deny the potentially broad nature of Coins. This comment provides reasons as to why the Coin should be redefined as a type of property that can be used as a private currency, or as a tool to transfer ownership in assets, rights, or obligations. However, given the current primacy of Bitcoin, and Bitcoin 2.0 technology, perhaps a wait-and-see approach should be undertaken prior to setting any uniform definitions or guidelines.<sup>281</sup> This approach has been suggested by Texas Congressman Steve Stockman.<sup>282</sup>

#### IV. CONGRESSIONAL FREEZE AS A POTENTIAL SOLUTION

In light of the need for unhindered innovation for the Bitcoin system to evolve to its full potential, Texas Congressman Steve Stockman, has proposed a five-year moratorium on Bitcoin regulation in the form of “the Cryptocurrency Protocol Protection and Moratorium Act.”<sup>283</sup> This Act was proposed to freeze any statutory regulations on cryptocurrencies for a five-year period, beginning June 1, 2015.<sup>284</sup> During its inception, the bill has remained at the committee stage in the House of Representatives.<sup>285</sup> As of December 1, 2014, it has been “referred to the Committee on Financial Services, and in addition to the Committee on Ways and Means, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.”<sup>286</sup> The wait-and-see approach adopted by “the Cryptocurrency Protocol Protection and Moratorium Act,” offers a solid solution to bridging the gap between the inconsistent approaches adopted by a number of different lawmakers thus far involved in determining the nature of Bitcoin.<sup>287</sup> By allowing Bitcoin 2.0 blueprints for the future

---

<sup>280</sup> See *supra* notes 251-58 and accompanying text.

<sup>281</sup> *Infra* Part IV (discussing the implications of a five-year moratorium on Bitcoin regulation).

<sup>282</sup> H.R. 5777, 113th Cong. (2014).

<sup>283</sup> *Id.*

<sup>284</sup> *Id.*

<sup>285</sup> *H.R. 5777 (IH) – Cryptocurrency Protocol Protection and Moratorium Act*, U.S. GOV'T PUB. OFF., <http://www.gpo.gov/fdsys/pkg/BILLS-113hr5777ih/content-detail.html> (last visited Feb. 19, 2015).

<sup>286</sup> *Id.*

<sup>287</sup> See Stan Higgins, *Proposed US Law Calls For Five-Year Moratorium on Bitcoin Regulation*, COINDESK (Dec. 4, 2014, 5:29 PM), <http://www.coindesk.com/proposed-us-moratorium-bitcoin-regulation/> (reporting that Congressman “Stockman said he believes that ‘New York is putting the cart before the horse’ in shaping its regulatory framework”).



nature of Bitcoin to evolve without further restrictions, lawmakers will be in a stronger position to accurately define the nature of the Coin, and thereby to more effectively regulate it.<sup>288</sup>

## V. CONCLUSION

The Bitcoin System is currently operated as a means of transferring virtual currency, or cryptocurrency.<sup>289</sup> However, the rise of Bitcoin 2.0 may soon lead to the online transfer of legal obligations, redeemable rights, and physical assets, as the potential of a secure online ledger rapidly continues to evolve.<sup>290</sup> As the law is still struggling to get grips with Bitcoin in the form of a cryptocurrency, Bitcoin 2.0 applications are quickly developing more uses for the Bitcoin system.<sup>291</sup> In light of its current and future uses under Bitcoin 2.0 applications, the Coin needs to be uniformly redefined to encompass all of its potential uses and characteristics.<sup>292</sup>

Congressional action in the form of the “Cryptocurrency Protocol Protection and Moratorium Act,” offers a viable solution to bridging the gap between the inconsistencies evolving in our legal approaches, and the rapid evolution of Bitcoin 2.0.<sup>293</sup> In light of the rapid advancements of technology in general and cryptocurrencies in particular, a forward-looking approach is needed. Whether we adopt an aggressive approach towards immediate application of current regulations to Bitcoin,<sup>294</sup> or adopt a wait-and-see approach to establishing new regulations,<sup>295</sup> a forward-looking approach to the regulation of Bitcoin can only be achieved by expanding the definition of the Coin to include all of its current and future characteristics. A review of the current legal approaches suggests a need to define the Coin broadly, so as to ensure its regulation as: (i) property that

---

<sup>288</sup> *See id.* (“The draft text suggests that Bitcoin may offer the American public economic and technological advantages, and ‘may be crucial to overall economic growth.’”).

<sup>289</sup> *Supra* Part II.A (discussing the use of the Coin as a means of exchange).

<sup>290</sup> *See supra* Part III (discussing the future of the Coin under Bitcoin 2.0 applications).

<sup>291</sup> Richard Waters, *Bitcoin 2.0 Gives the Dreamers Focus — But Only Without the Hype*, FIN. TIMES (Dec. 4, 2014), <http://www.ft.com/intl/cms/s/0/f53524de-7bca-11e4-b6ab-00144feabdc0.html#axzz3miLyhj9Q> (“Is the world ready for Bitcoin 2.0 when it is still struggling to get to grips with the 1.0 version?”).

<sup>292</sup> *See* BRIAN KELLY, *THE BITCOIN BIG BANG: HOW ALTERNATIVE CURRENCIES ARE ABOUT TO CHANGE THE WORLD* 17-18 (2015) (discussing the revolutionary nature of Bitcoin).

<sup>293</sup> *Supra* Part IV (discussing the benefits of implementing the congressional freeze).

<sup>294</sup> *See supra* Parts II.E.1, 4 (discussing that such approach has been adopted by New York and Vermont).

<sup>295</sup> *Supra* Part IV (discussing such approach proposed by the Cryptocurrency Protocol Protection and Moratorium Act).

can be invested in,<sup>296</sup> (ii) private currency or money that can be used to buy and sell goods and services,<sup>297</sup> and (iii) a means of representing ownership in assets, rights, or obligations.<sup>298</sup> By defining the Coin broadly, our lawmakers will be better prepared to deal with the legal issues regarding the rising technology of Bitcoin.<sup>299</sup>

---

<sup>296</sup> *Supra* Parts II.C.2. & II.D.1 (discussing the I.R.S. taxing gains made on Coin investments and the use of Coins as investment funds).

<sup>297</sup> *Supra* Part II.A (discussing the use of Coins as a means of exchange).

<sup>298</sup> *See supra* Part III (discussing the use of Coins under Bitcoin 2.0 applications).

<sup>299</sup> *See* Daniel Cawrey, *Balanced Regulation Could Help the Good in Bitcoin Overcome the Bad*, COINDESK (Nov. 19, 2013, 1:30 PM)<http://www.coindesk.com/balanced-regulation-help-good-bitcoin-overcome-bad/> (“[I]t’s absolutely essential for there to be a continuing dialog about decentralized virtual currencies.”).