

BITCOIN: CURRENCY OR FOOL'S GOLD?: A COMPARATIVE ANALYSIS OF THE LEGAL CLASSIFICATION OF BITCOIN

*By: Seth Litwack**

I. INTRODUCTION

I'm sure that in 20 years there will either be very large transaction volume or no volume.

—Satoshi Nakamoto, *RE: what's with this odd generation?*¹

On May 1, 2010, Laszlo Hanyecz paid the May 22, 2014 market equivalent of about \$5,000,000 for just two Papa John's pizza pies.² Hanyecz did not pay a fellow internet-user in U.S. dollars for the pizza, or any other national currency for that matter—he paid BTC10,000 (bitcoin).³

Satoshi Nakamoto attracted an unusual following of technologists and libertarians⁴ from all over the world when he created the bitcoin protocol and software in 2009.⁵ Bitcoin, a decentralized digital currency that is not backed by

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1. Comment to *Re: What's with This Odd Generation?*, BITCOIN FORUM (Feb. 14, 2010, 3:52 PM), <https://bitcointalk.org/index.php?topic=48.msg329#msg329>.

2. See Alyssa Newcomb, *'Bitcoin Pizza Day': Why 2 Pies Are Now Worth \$5 Million*, ABC NEWS (May 22, 2014), <http://abcnews.go.com/Technology/bitcoin-pizza-day-pies-now-worth-million/story?id=23824128> (summarizing Laszlo Hanyecz's story of purchasing two pizza pies in what is one of the earliest bitcoin transactions).

3. *Id.* According to bitcoin advocates, the goal of bitcoin “is to serve as an alternative to the existing payments system and to enable transactions across national borders and currency denominations without the interference of sovereign entities or central banks, and without the alleged exploitation by traditional financial intermediaries such as banks.” Stephanie Lo & J Christina Wang, *Currency Policy Perspectives: Bitcoin as Money?*, 14-4 FED. RESERVE BANK OF BOS. 2 (Sept. 4, 2014), <http://www.bostonfed.org/economic/current-policy-perspectives/2014/cpp1404.pdf>.

4. See Marc Andreessen, *Why Bitcoin Matters*, N.Y. TIMES DEALBOOK (Jan. 21, 2014, 11:54 AM), <http://dealbook.nytimes.com/2014/01/21/why-bitcoin-matters> (discussing the appeal of bitcoin to both libertarians and technologists).

5. Nikolei M. Kaplanov, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation* (Mar. 31, 2012), Temple University Legal Studies Research Paper, available for download at <http://ssrn.com/abstract=2115203>.

any government or legal entity,⁶ went from trading at less than \$0.05 per BTC in 2010 to exceeding \$1,200 in 2013.⁷ In November 2013 alone, bitcoin prices increased 500 percent, leading many to cite bitcoin's use as a speculative investment as the reason for the dramatic increase in valuation.⁸ The response by the U.S. federal government to the rise of bitcoin has been ad hoc and is likely not a permanent solution.⁹

Although revolutionary in its technology, bitcoin presents many regulatory and legal issues.¹⁰ Most importantly, many countries are having difficulty defining bitcoin's nature.¹¹ Is it a currency, commodity, security, payment system, or something else entirely?¹² The characterization of bitcoin has significant implications because it determines what laws and regulations will apply, particularly within the United States. For instance, whether or not bitcoin is a currency, security, or commodity will determine the amount of tax the Internal Revenue Service (IRS) places on bitcoin transactions.¹³ Furthermore, classifying bitcoin will determine which U.S. federal agency has jurisdiction over bitcoin-related activities in regulatory and criminal matters.¹⁴

In this comment, I will examine whether bitcoin should be considered a currency, commodity, security, or some other classification. First, I will give an explanation of bitcoin, including its history, functionality, and competitors. Second, I will analyze the positions that other nations have taken on the categorization of bitcoin and how those positions have affected both taxation and regulation. Third, I will present arguments for and against the categorization of bitcoin as a currency, commodity, or security. Finally, I will argue that the U.S. government and regulatory agencies should follow Germany, Australia, and

6. Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH. L.J. 159, 160 (2012).

7. David Yermack, *Is Bitcoin a Real Currency? An Economic Appraisal*, N.Y. U. STERN SCH. OF BUS. & NAT'L BUREAU OF ECON. RES. 1 (Apr. 1, 2014), <http://online.wsj.com/public/resources/documents/NBER.pdf>.

8. See Lo & Wang, *supra* note 3, at 2 ("What attracted unprecedented interest in Bitcoin around the turn of the year . . . was the meteoric rise of bitcoin's price.").

9. See Kaplanov, *supra* note 5, at 3 (concluding that bitcoin use is not contemplated under U.S. law).

10. The exchange of Bitcoin for fiat was banned in Iceland in 2013 under the nation's Foreign Exchange Act. See *Höftin stöðva viðskipti með Bitcoin [The Controls Suspend Trading in Bitcoin]*, MORGUNBLAÐIÐ (Dec. 19, 2013, 11:43 AM), http://www.mbl.is/vidskipti/frettir/2013/12/19/hoftin_stodva_vidskipti_med_bitcoin.

11. See, e.g., Jay Newton-Small, *Bitcoin Goes to Washington: Monday's Hearing Is Just the Beginning*, TIME MAGAZINE (Nov. 17, 2013), <http://swampland.time.com/2013/11/17/bitcoin-comes-to-washington-mondays-hearing-is-just-the-beginning>.

12. See Grinberg, *supra* note 6, at 194–203 (discussing the question of whether bitcoin is a currency, commodity, investment, or note/stock).

13. See I.R.S. Notice 2014-21 (2014), <http://www.irs.gov/pub/irs-drop/n-14-21.pdf> (describing how existing tax principles apply to virtual currency transactions).

14. See Kaplanov, *supra* note 5, at 26 (noting that the Securities and Exchange Commission will have jurisdiction over bitcoin if it is classified as a security).

Canada by classifying bitcoin as both a currency and an investment/asset, and regulating and taxing bitcoin transactions according to the purpose for which they are conducted and the context in which income on such transactions is generated.

II. BITCOIN IN CONTEXT

A. *History of Money*

In general, currency can be defined as "the coin and paper money of . . . any . . . 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."¹⁵

Barter, the "exchange of resources or services for mutual advantage," predates the use of money, and may have existed at the start of mankind.¹⁶ Cattle and grain were used as money as early as 9000 B.C.¹⁷ Later, in 1200 B.C., cowrie shells, the shells of mollusc, available in the Indian and Pacific Oceans, became the most widely and longest-used currency in history.¹⁸ In fact, imitations of cowries were made in bronze and copper in China around 500 B.C., becoming what is considered the earliest forms of metal coins.¹⁹

In 269 B.C., the Romans introduced a silver coin, the denarium, manufactured in the temple of Juno Moneta,²⁰ from which the English word "money" is derived.²¹ In 1290 A.D. the travels of Marco Polo introduced the idea of paper money to the Europeans.²² This had a huge impact on business because it allowed them to mass-produce money without relying on the supply of certain metals.²³ By 1860 A.D., Western Union and other companies revolutionized money by allowing electronic fund transfers via telegram.²⁴ This technology was largely replaced with the advent of the "Charg-It" card, the first credit card in 1946 A.D.²⁵ Since then, aside from the addition of online and mobile payments, currency

15. *Guidance (FIN-2013-G001) – Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, FINCEN (Mar. 18, 2013), http://www.fincen.gov/statutes_regs/guidance/html/FIN-2013-G001.html (citing 31 C.F.R. § 1010.100(m)).

16. *The History of Money*, PBS (Oct. 26, 1996), <http://www.pbs.org/wgbh/nova/ancient/history-money.html>.

17. *Id.*

18. *Id.*

19. *Id.*

20. JACK WEATHERFORD, *THE HISTORY OF MONEY* 48 (1998).

21. *Id.*

22. Rebecca Burn-Callander, *The History of Money: From Barter to Bitcoin*, THE TELEGRAPH (Oct. 20, 2014, 11:35 AM), <http://www.telegraph.co.uk/finance/businessclub/money/11174013/The-history-of-money-from-barter-to-bitcoin.html>.

23. *Id.*

24. *Id.*

25. *Id.*

technology and innovation has been relatively stagnant.²⁶

B. Pre-Bitcoin Digital Currencies

Within the latter half of the twentieth century, electronic money was created, prompting governments to define this new form of exchange.²⁷ Electronic money is defined by the European Commission on Banking and Finance as the following:

[E]lectronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions . . . which is accepted by a natural or legal person other than the electronic money issuer.²⁸

The first proposal for a digital currency dates back to a paper written in 1982 by David Chaum.²⁹ Although the proposal was not popular, Chaum commercialized his research in 1994 with the creation of DigiCash.³⁰ In 1996, e-gold was established in the Caribbean, quickly becoming the forerunner to today's virtual currency.³¹ By November of 2003, e-gold boasted over one million accounts,³² many of which were suspected of being used for criminal purposes.³³ In 2007, before the shutdown of e-gold by the U.S. government, many of its users had already switched to a competing digital currency, WebMoney.³⁴ WebMoney was anonymously established in 1998 and claimed over seven million users at its height in 2009.³⁵

Liberty Reserve, a digital currency launched in 2001, is alleged to have helped launder more than \$6 billion in criminal proceeds before the U.S. government shut it down in 2013.³⁶ The founders of Liberty Reserve were

26. *Id.*

27. *See id.* (using a diagram to illustrate very few advancements since 2014).

28. *Questions related to article 2 of 2009/110/EC*, E.U. COMMISSION BANKING & FIN. (Apr. 18, 2014), <http://ec.europa.eu/yqol/index.cfm?fuseaction=legislation.treeQuestions&lexid=8&art=2&browse=true&questionId=1110>.

29. *See* David Chaum, *Blind Signatures for Untraceable Payments*, in *ADVANCES IN CRYPTOLOGY*, SPRINGER 199–203 (David Chaum, Ronald L. Rivest & Alan T. Sherman eds., 1983) (introducing the cryptographic primitive of a blind signature and the invention of secure digital cash).

30. *See* Press Release, DigiCash, World's First Electronic Cash Payment Over Computer Networks (May 27, 1994) (on file with author), https://w2.eff.org/Privacy/Digital_money/?f=digicash.announce.txt (announcing the release of DigiCash).

31. E-gold was an online service that did not require verification of account holder identity and allowed customers to transact in the e-gold currency while easily being able to anonymously convert it back to real money. *See* RAJ SAMANI, FRANÇOIS PAGET & MATTHEW HART, *DIGITAL LAUNDRY: AN ANALYSIS OF ONLINE CURRENCIES, AND THEIR USE IN CYBERCRIME* 8 (2013), <http://www.mcafee.com/us/resources/white-papers/wp-digital-laundry.pdf> (explaining the history of online currencies and their various uses in cybercrime).

32. *Id.*

33. *See id.* (noting e-gold's reputation for attracting cybercriminals).

34. *See id.* (discussing how many users of e-gold switched to WebMoney, specifically criminal actors).

35. *Id.*

36. *See id.* (providing a summary of the rise and fall of Liberty Reserve). In addition to

sentenced to five years in federal prison for transmitting money without a license.³⁷ After Liberty Reserve was shut down, Perfect Money, a newer digital currency with anonymous founders, banned U.S. citizens from using their service in order to mitigate the risk of going to prison.³⁸

In 1998, a member of the “Cypherphunks” group,³⁹ Wei Dai, published an innovative description of an anonymous virtual currency where government intervention was unnecessary.⁴⁰ Dai’s proposal is often cited as the main influence for Satoshi Nakamoto’s creation of the bitcoin protocol.⁴¹

C. Bitcoin Explained

In 2008, Satoshi Nakamoto⁴² published the first paper on a “peer-to-peer version of electronic cash,” called “bitcoin.”⁴³ Specifically, Nakamoto proposed a system whereby payments would be sent from one party to another without the need to go through a financial institution, government, or other central party.⁴⁴ A

arresting the founders of Liberty Reserve, the U.S. government seized the domain and computer servers of Liberty Reserve. Krishna Andavolu, *The E-Currency Exchange LibertyReserve.com Got Shut Down for Laundering \$6 Billion*, VICE (May 29, 2013), <http://www.vice.com/read/feds-indict-e-currency-exchange-liberty-reserve>.

37. SAMANI, *supra* note 31, at 8.

38. *Id.* at 9. Perfect Money’s stance on not working with U.S. citizens is believed to be attractive to “dark web” users. Perfect Money operates similarly to Liberty Reserve. Account owners can make transactions and transfer money online. Miles Klee, *Perfect Money is now the Preferred Digital Currency for Money Laundering*, THE DAILY DOT (Aug. 12, 2013, 3:07 PM), <http://www.dailydot.com/crime/perfect-money-digital-currency-money-laundering/>

39. The Cypherphunks are a group devoted to the research and development of “remailers, anonymous peer-to-peer services, secure network tunnels, mobile voice encryption, untraceable electronic cash, [and] secure operating environments.” Kaplanov, *supra* note 5, at 3 n.17 (quoting Cypherpunks, <http://www.cypherpunks.to/> (last visited Nov. 17, 2015)).

40. Kaplanov, *supra* note 5, at 3.

41. See Wei Dai, B-MONEY para. 2, <http://weidai.com/bmoney.txt> (last visited Sept. 5, 2015) (proposing an anonymous digital currency and monetary protocol).

42. Nakamoto’s interaction on bitcoin online forums ceased about a year after bitcoin was created. Additionally, it is unlikely that Satoshi Nakamoto is the creator of bitcoin’s actual name. Many believe that he is a Japanese citizen. In February 2014, a Newsweek Reporter claimed to have tracked down Satoshi Nakamoto, who is living by the name of Satoshi. However, for the most part these sorts of accusations have been proved false. Nevertheless, in the bitcoin market place of November 2013 there was an untouched bitcoin account that had a market worth of over \$1 billion, which many claimed was Nakamoto’s. *Who is Satoshi Nakamoto*, COINDESK (last updated May 20, 2015), <http://www.coindesk.com/information/who-is-satoshi-nakamoto>. Interestingly, the first note embedded on the first bitcoin transaction blockchain, which was left by Nakamoto, states “The Times 03/Jan/2009 Chancellor on brink of second bailout for banks.” Some interpret this note as an indication of Nakamoto’s concern for the central banking system. Naomi O’Leary, *British Traders Have Discovered Bitcoin*, BUSINESS INSIDER (Apr. 2, 2012, 9:57 AM), <http://www.businessinsider.com/british-traders-have-discovered-bitcoin-2012-4>.

43. See generally Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN.ORG, <https://bitcoin.org/bitcoin.pdf> (last visited Sept. 15, 2015) (introducing the bitcoin protocol and payment system for the first time).

44. *Id.*

year after publishing his proposal, Satoshi Nakamoto released the entire bitcoin code and network.⁴⁵

The bitcoin system can be segmented into a number of complex systems including mining, transactions, exchanges, and wallets.⁴⁶ In the forthcoming section, I will explain these segments, in addition to bitcoin's purpose and advantages for both users and merchants.

1. Advantages

There are three main purposes for the use of bitcoin: (1) cost; (2) security; and (3) anonymity.⁴⁷ First, bitcoin transactions cost less than existing transactions in other worldwide payment systems.⁴⁸ The higher transaction cost of current payment systems is largely due to government regulation, monopolization of certain systems, and/or the implementation of certain fraud protection systems.⁴⁹ However, once bitcoin regulation advances, the cost of bitcoin transactions may be much closer to that of its competitors.⁵⁰ Due to cheaper transaction costs and lack of governmental backing,⁵¹ it may become a staple in cross-border transactions. Second, due to cryptography and its decentralized nature, bitcoin transactions are extremely secure.⁵² This is different from the security of a user's bitcoin wallet, which may be less secure depending on the technologies used. Third, bitcoin's decentralized nature allows for partial anonymity.⁵³ Many libertarians, who view bitcoin as a way to stay under the government's radar, champion this anonymity.⁵⁴

45. See Press Release, Hal Finney, Announcing the First Release of Bitcoin (Jan. 11, 2009, 10:22 AM), <http://www.mail-archive.com/cryptography@metzdowd.com/msg10152.html> (reporting the release of the first version of the bitcoin source code and briefly explaining the bitcoin system); see also Dorit Ron & Adi Shamir, *Quantitative Analysis of the Full Bitcoin Transaction Graph*, IACR.ORG, <http://eprint.iacr.org/2012/584.pdf> (last visited Oct. 5, 2014) (explaining thoroughly the bitcoin transactional scheme).

46. See generally Kaplanov, *supra* note 5.

47. *Id.* at 11.

48. See *id.* (explaining that the cost of a direct transaction is less than one with a third party).

49. See, e.g., *Where do Credit Card Fees Come From?* BRAINTREE (June 11, 2008), <https://www.braintreepayments.com/blog/where-do-credit-card-fees-come-from-cc/>.

50. See Steven Witzel, *Bitcoin and Virtual Currency Regulation*, N.Y. L. J. (Sept. 4, 2014), <http://www.newyorklawjournal.com/id=1202668742780/Bitcoin-and-Virtual-Currency-Regulation?slreturn=20140923201619> (asserting that many small businesses will not be able to shoulder the costs from the increase in bitcoin regulation).

51. *Id.*

52. Eric Voorhees, *Is Bitcoin Truly Decentralized? Yes—And Here is Why It's Important*, BITCOIN MAGAZINE (Jan. 22, 2015, 5:52 PM), <https://bitcoinmagazine.com/articles/bitcoin-truly-decentralized-yes-important-1421967133>.

53. See Fergal Reid & Martin Harrigan, *An Analysis of Anonymity in the Bitcoin System, in SECURITY AND PRIVACY IN SOCIAL NETWORKS* (Yaniv Altshuler, Yuval Elovici, Armin B. Cremers, Nadav Aharony & Alex Pentland eds., 2013) (discussing the anonymity of bitcoin).

54. See generally Henrik Karlström, *Do Libertarians Dream of Electronic Coins? The Material Embeddedness of Bitcoin*, WORDPRESS.COM, <https://henrikkarlstrom.files.wordpress.com/2012/11/virtual-money.pdf> (last visited Sept. 16, 2015).

2. Merchants

Unsurprisingly, bitcoin, as a partially anonymous and decentralized currency, was largely used for illegal product sales shortly after its introduction.⁵⁵ The Silk Road Marketplace⁵⁶ launched in 2011, promptly became the “eBay for drugs.”⁵⁷ The Silk Road was and continues to be an online marketplace that facilitates anonymous transactions between buyers and sellers, placing few restrictions on what type of goods can be sold.⁵⁸ It works solely through an anonymous web-browser.⁵⁹ Although the Federal Bureau of Investigation halted the Silk Road in October 2013, a number of replacements have been created, including Silk Road 2.0, which continues to post the sale of illegal products online.⁶⁰ Bitcoin's association with the Silk Road gave it an early reputation and association with lawlessness.⁶¹

Although the Silk Road greatly furthered the adoption of bitcoin, it also stigmatized the technology as one used by criminals.⁶² In 2012, however, WordPress⁶³ began accepting bitcoin as a method of payment for account upgrades,

55. *Beyond Silk Road: Potential Risks, Threats, and Promises of Virtual Currencies: Hearing on S. HRG 113–516 Before the Comm. on Homeland Sec. and Gov't Affairs*, 113th Cong. 2–4 (Nov. 18, 2013), <http://www.gpo.gov/fdsys/pkg/CHRG-113shrg86636/pdf/CHRG-113shrg86636.pdf>.

56. *See Alleged Silk Road Founder Ross William Ulbricht Indicted in New York*, HUFFINGTON POST (Feb. 4, 2014, 3:15 PM), http://www.huffingtonpost.com/2014/02/04/silk-road-indictment_n_4725513.html (stating the charges against the founder of the Silk Road).

57. *But see* JUDITH ALDRIDGE & DAVID DECARY-HETU, NOT AN ‘EBAY FOR DRUGS’: THE CRYPTOMARKET ‘SILK ROAD’ AS A PARADIGM SHIFTING CRIMINAL INNOVATION (May 13, 2014), <http://dx.doi.org/10.2139/ssrn.2436643> (arguing that the Silk Road is not the “eBay for drugs,” but rather a marketplace where drug dealers can obtain drugs via “business-to-business” transactions).

58. *See* Nicolas Christin, *Traveling the Silk Road: A Measurement Analysis of a Large Anonymous Online Marketplace* 3 (Carnegie Mellon INI/CyLab, Working Paper No. 1654, 2012), https://www.cylab.cmu.edu/files/pdfs/tech_reports/CMUCyLab12018.pdf (providing an in-depth description of the Silk Road).

59. Tor consists both of software that you can download to browse the web and a network of computers that allows for anonymity when browsing. The Tor “exit relay” allows for an IP address to be rerouted anywhere in the world, making it nearly impossible to track. The more relays available, the more anonymous the network will be. Tor was originally commissioned by the U.S. Navy in order to protect government communications. For more information, *see Tor Overview*, TORPROJECT, <https://www.torproject.org/about/overview> (last visited Oct. 29, 2014).

60. *See* Andrew Coutts, *That Was Fast: 2 Sites Vie for Silk Road's Criminal Customers*, DIGITAL TRENDS (Oct. 3, 2013), <http://www.digitaltrends.com/web/silk-road-fbi-ulbricht-sheep-marketplace-bmr/> (explaining marketplace alternatives to the Silk Road).

61. YERMACK, *supra* note 7, at 6.

62. *See* Ola Doudin, *Bitcoin Passes \$200 Mark Despite Silk Road Closure*, WAMDA (Oct. 23, 2013), <http://www.wamda.com/2013/10/bitcoin-200-china-baidu-silk-road> (stating that much of Bitcoin's early adoption came from the silk road).

63. WordPress is a publishing platform that allows anyone to create blogs or websites. The site uses their own open source software to host others' publications. *About Us*, WORDPRESS.COM, <https://wordpress.com/about/> (last visited Oct. 11, 2015).

citing PayPal's and many credit issuers' exclusion of numerous countries.⁶⁴ Overstock.com, an online retailer with \$1.3 billion in revenue,⁶⁵ added bitcoin as a payment choice in 2014.⁶⁶ Dell also recently added bitcoin, with the CEO stating, "Dell is now the world's largest e-commerce business to accept bitcoin."⁶⁷ As of September 2012, an estimated 80,000 merchants have begun accepting bitcoin.⁶⁸

On September 23, 2014, PayPal announced that it would be integrating its payments hub with leading bitcoin merchant payment processors.⁶⁹ This will allow merchants to easily integrate bitcoin into their payment platform.⁷⁰ While PayPal noted it has not yet added bitcoin to the Paypal wallet system,⁷¹ due to the size and prominence of PayPal, this announcement demonstrates bitcoin's success. Accordingly, the adoption of bitcoin as a method of payment among these reputable businesses has helped to legitimize bitcoin as a legal method of transaction.

3. Transactions, Mining, and Fraud

The backbone and most innovative aspect of bitcoin is the "blockchain" ("public ledgers"), a publicly distributed ledger where all financial transactions are publicly recorded.⁷² In combination with the "private keys" held by a bitcoin user, the blockchain allows for bitcoin to be decentralized and semi-anonymous.⁷³ Each

64. See Andy Skelton, *Pay Another Way: Bitcoin*, WORDPRESS.COM (Nov. 15, 2012, 10:21 PM), <http://en.blog.wordpress.com/2012/11/15/pay-another-way-bitcoin> (announcing that WordPress, a popular website publishing service, now accepts bitcoin as a form of payment).

65. Press Release, Overstock, *Overstock.com Reports FY and Q4 2013 Results* (Jan. 30, 2014), <http://investors.overstock.com/phoenix.zhtml?c=131091&p=irol-newsArticle&ID=1895315>.

66. See *id.* (referencing acceptance of bitcoin in a disclaimer); see also Jane McEntegart, *TigerDirect is Now Accepting Bitcoin as Payment*, TOM'S HARDWARE (Jan. 26, 2014, 7:58 PM), <http://www.tomshardware.com/news/tigerdirect-bitcoin-bitpay-payments,25859.html> (reporting that TigerDirect is using BitPay to accept bitcoin payments).

67. See Mike Flacy, *Dell, Newegg Start Accepting Bitcoin as Payment*, DIGITAL TRENDS (July 19, 2014), <http://www.digitaltrends.com/web/dell-newegg-start-accepting-bitcoin-payment/#!bv9oFm> (reporting the acceptance of bitcoin by Dell); see also John Biggs, *Expedia Now Accepts Bitcoin For Your Crypto-Vacations*, TECH CRUNCH (June 11, 2014), <http://techcrunch.com/2014/06/11/expedia-now-accepts-bitcoin-for-your-crypto-vacations> (reporting the acceptance of bitcoin by Expedia trip service).

68. Kim Shandrow, *5 Reasons Merchants Should Start Accepting Bitcoin Now*, ENTREPRENEUR (Sept. 4, 2014), <http://www.entrepreneur.com/article/237026>.

69. See *Select PayPal Vendors Can Now Accept Bitcoin*, CIRCA NEWS (Sept. 30, 2014, 8:25 AM), <http://circanews.com/news/paypal-expands-bitcoin-support> (discussing PayPal's announcement that it would begin accepting bitcoin as well as agreements with bitcoin payment processors BitPay, Coinbase and GoCoin).

70. *Id.*

71. See *id.* (noting that PayPal will support bitcoin in some aspects, but will proceed slowly and will not integrate bitcoin support site-wide).

72. Kaplanov, *supra* note 5, at 6.

73. *How Bitcoin Works*, BITCOIN WIKI, https://en.bitcoin.it/wiki/How_bitcoin_works (last modified Feb. 10, 2015) (introducing the concept of the "private key" in relation to bitcoin).

time a bitcoin is sent from one user to another it is verified via the blockchain.⁷⁴

In order to send and receive bitcoin, users download and use bitcoin “wallets,”⁷⁵ allowing users to generate “addresses” to receive bitcoin.⁷⁶ Bitcoin transactions are free, but a fee can be added to process the transaction faster.⁷⁷ Transactions take about eight to ten minutes for one confirmation on the blockchain.⁷⁸

The blockchain is maintained by the computing power of those who “mine” bitcoin.⁷⁹ Individuals (“miners”) use their computing power to locate bitcoin “blocks” by solving computationally intense problems.⁸⁰ The first miner to post a solution to the mathematical problem is rewarded with newly created bitcoins and transactional fees.⁸¹ Miners generally mine in “mining pools,” where miners combine their computing power to increase their odds of solving the computational problems first.⁸² By the time it is fully mined in 2140, bitcoin will have twenty-one million coins in existence.⁸³ As of September 28, 2014, there have already been over thirteen million bitcoin mined.⁸⁴

The cryptographic technology used by bitcoin allows it to prevent counterfeiting of each bitcoin code.⁸⁵ Network nodes and the publicly available

74. *Id.* (explaining how the blockchain works).

75. There are a number of different kinds of bitcoin wallets, including but not limited to, iPhone, Android, Web browser, and desktop. *See Choose Your Bitcoin Wallet*, BITCOIN PROJECT, <https://bitcoin.org/en/choose-your-wallet> (last visited Oct. 6, 2014) (displaying different types of bitcoin wallets).

76. *See* Grinberg, *supra* note 6, at 167 (discussing sites that provide Bitcoin transactional services). In order to use a bitcoin, a user must submit a “public key” and a “private key” for verification on the blockchain. *See* Lo & Wang, *supra* note 3, at 2 (explaining the process of using a bitcoin).

77. *See* Grinberg, *supra* note 6, at 165 (explaining that the only fee associated with bitcoin is an expedited transaction fee).

78. *See Median Transaction Confirmation Time*, BLOCKCHAIN.INFO, https://blockchain.info/charts/avg-confirmationtime?timespan=all&showDataPoints=false&daysAverageString=7&show_header=true&scale=0&address= (last visited Mar. 20, 2015) (displaying a chart of median transaction confirmation time data over the course of a few months).

79. *See* Lo & Wang, *supra* note 3, at 2 (explaining the process of “mining” bitcoin).

80. In addition to mining, miners also use their computational power to verify the authenticity of bitcoins sent from one user to another. *Id.*

81. *See id.* at 2–3 (explaining the rewards of the mining process).

82. *See* Benjamin Johnson et al., *Game-Theoretic Analysis of DDoS Attacks Against Bitcoin Mining Pools*, 1ST WORKSHOP ON BITCOIN RESEARCH BITCOIN 2014 1, 2 (2014), <http://lyle.smu.edu/~tylerm/bitcoin14gt.pdf> (describing the use of mining pools as a means of increasing output).

83. *See* Lo & Wang, *supra* note 3, at 3 (discussing limitations on the amount of bitcoin in existence).

84. *See Total Bitcoin in Circulation*, BLOCKCHAIN.INFO, <http://blockchain.info/charts/total-bitcoin> (last visited Oct. 6, 2014) (showing a chart of the total amount of bitcoin in existence over time).

85. *See* Dan Kaminsky, *I Tried Hacking Bitcoin and I Failed*, BUSINESS INSIDER (Apr. 12, 2013, 10:45 AM), <http://www.businessinsider.com/dan-kaminsky-highlights-flaws-bitcoin-2013->

blockchain validate all payments.⁸⁶ Unlike other payment methods, there are no chargebacks,⁸⁷ since bitcoin transactions are irreversible.⁸⁸ This irreversibility may sometimes cause problems because a bitcoin user's "private keys" are stored in wallets on his or her computer.⁸⁹ A private key, which is a non-public cryptographic code, is matched with the blockchain to verify a transaction.⁹⁰ This allows anyone with access to either the user's wallet or computer to transfer the bitcoin to another wallet.⁹¹ Consequently, security against cybercriminals, who can potentially gain access to users' and merchants' bitcoin wallets, is a major concern for bitcoin. One company, Xapo, specializes in placing customers' bitcoin keys in guarded, underground mountain vaults.⁹²

Another issue with the bitcoin protocol is that it may allow for a "Double-Spend" attack.⁹³ This occurs when a cyber-attacker dispatches two transactions, using the same exact bitcoin.⁹⁴ An attack is considered successful when the transaction going to a second address used by the attacker is deemed valid, while the other transaction going to a merchant is not.⁹⁵ This allows the attacker to retain both bitcoins, and scam the merchant.⁹⁶ Although it was thought that the bitcoin protocol would succeed in fixing this problem, studies have shown that it may be worse than initially thought.⁹⁷

4 (explaining the technology that keeps bitcoin code safe from hacking). Kaminsky, one of the world's best cryptographers, could not crack the bitcoin code. *Id.*

86. See Neil Gandai & Hanna Halaburda, *Competition in the Cryptocurrency Market* 4 (Bank of Can., Working Paper No. 14-17, 2014) (explaining bitcoin's verification processes).

87. Chargebacks usually occur when a customer "refuses to accept responsibility for a charge on his credit card." *Chargeback Management and Prevention*, CHASE PAYMENTECH (last visited Jan. 12, 2016), <https://www.chasepaymentech.com/chargebacks.html>. For instance, if a customer claims that his or her card was fraudulently used to purchase an item from the merchant, the merchant loses any potential revenue from the sale. *Id.*

88. See Grinberg, *supra* note 6, at 165 (comparing bitcoin transactions to cash transactions).

89. See *id.* at 180 (discussing the possibility of bitcoin theft). However, there are many other ways to store bitcoin including on the Web, iPhone, and Android wallets. See *Choose Your Bitcoin Wallet*, *supra* note 75 (displaying the different types of bitcoin wallets).

90. Grinberg, *supra* note 6, at 180.

91. See Adrienne Jeffries, *How to Steal Bitcoin in Three Easy Steps*, THE VERGE (Dec. 19, 2013, 1:10 PM), <http://www.theverge.com/2013/12/19/5183356/how-to-steal-bitcoin-in-three-easy-steps> (explaining how to easily steal bitcoin from a user's wallet).

92. See Evelyn M. Rusli, *Latest Bitcoin Craze? Actual Bank Vaults*, WALL ST. J. (Mar. 13, 2014, 4:01 PM), <http://online.wsj.com/news/articles/SB10001424052702303546204579437462303753346> (reporting a new company Xapo raised \$20 million in order to store "private keys" of bitcoin underground).

93. See Ghassan O. Karame et al., *Two Bitcoins at the Price of One? Double-Spending Attacks on Fast Payments in Bitcoin*, INT'L ASS'N. FOR CRYPTOLOGIC RESEARCH 1 (2012), <https://eprint.iacr.org/2012/248.pdf> (discussing Double-Spend attacks).

94. See *id.* (explaining the process of a Double-Spend attack).

95. See *id.* at 5-6 (describing the conditions for a successful Double-Spend attack).

96. See *id.* (diagramming the effect of a Double-Spend attack on the merchant, and the benefit for the attacker).

97. See *id.* at 5 (discussing the assumptions that must be made for the bitcoin protocol to fix double-spend attacks).

4. Exchanges and Payment Processors

In addition to mining for bitcoin, individuals can purchase bitcoin through online exchanges where bitcoin floats against digital and fiat currencies.⁹⁸ One such exchange, Mt. Gox, launched in 2010 in Japan as a bitcoin to fiat exchange.⁹⁹ By 2013, it was handling 70% of bitcoin exchange transactions.¹⁰⁰ However, Mt. Gox's success was short lived; In 2014, the exchange terminated trading and filed for bankruptcy in both Japan and the United States.¹⁰¹ Mt. Gox alleges that over \$450 million of users' bitcoin were stolen by unknown hackers, although this has not been verified.¹⁰²

After launching out of beta in 2013, a U.S.-based exchange, Coinbase, quickly became a success, receiving a \$25 million investment from Andreessen Horowitz, Union Square Ventures, and Ribbit Capital in the same year.¹⁰³ Coinbase currently works with 36,000 merchants and has 1.6 million user wallets.¹⁰⁴ It recently launched in a number of countries outside of the United States.¹⁰⁵ Another platform, Circle, launched in March 2014 to enable ease-of-use for online and in-person payments, quickly becoming a competitor to Coinbase in the bitcoin exchange space.¹⁰⁶

98. On the online exchanges, bitcoin has the same worth as digital currency (electronic money) and fiat currency (money that is backed by a government). See Kaplanov, *supra* note 5, at 8–9 (discussing online bitcoin exchanges).

99. See Robert McMillan & Cade Metz, *The Rise and Fall of the World's Largest Bitcoin Exchange*, WIRED (Nov. 6, 2013, 6:30 AM), <http://www.wired.com/2013/11/mtgox> (discussing the reasons behind the collapse of the colossal Mt. Gox exchange).

100. Paul Vigna, *5 Things About Mt. Gox's Crisis*, WALL ST. J., (Feb. 24, 2014, 2:03 PM), <http://blogs.wsj.com/briefly/2014/02/25/5-things-about-mt-goxs-crisis> (discussing the effects of Mt. Gox's crisis on bitcoin).

101. See Ben McLannahan, *Bitcoin Exchange Mt Gox Files for Bankruptcy Protection*, THE FINANCIAL TIMES (Feb. 28, 2014), <http://www.ft.com/cms/s/0/6636e0e8-a06e-11e3-a72c-00144feab7de.html> (discussing Mt. Gox's decision to file for bankruptcy).

102. See Rachel Abrams & Nathaniel Popper, *Trading Site Failure Stirs Ire and Hope for Bitcoin*, N.Y. TIMES (Feb. 25, 2014, 9:16 PM), http://dealbook.nytimes.com/2014/02/25/trading-site-failure-stirs-ire-and-hope-for-bitcoin/?_php=true&_type=blogs&_r=0 (illustrating the disbelief of those who had lost funds in the Mt. Gox bankruptcy). But see Andy Greenberg, *Hackers Hit Mt. Gox Exchange's CEO, Claim To Publish Evidence Of Fraud*, FORBES (Mar. 9, 2014, 4:38 PM), <http://www.forbes.com/sites/andygreenberg/2014/03/09/hackers-hit-mt-gox-exchanges-ceo-claim-to-publish-evidence-of-fraud> (stating that there is some possible evidence of fraud in the Mt. Gox bankruptcy).

103. See Alex Williams, *Coinbase Raises \$25M Led by Andreessen Horowitz to Build Its Bitcoin Wallet and Merchant Services*, TECH CRUNCH (Dec. 12, 2013), <http://techcrunch.com/2013/12/12/coinbase-raises-25m-from-andreessen-horowitz-to-build-its-bitcoin-wallet-and-merchant-services/> (discussing the start-up and expansion of Coinbase).

104. Don Reisinger, *Bitcoin Platform Coinbase Expands to 13 European Countries*, CNET (Sept. 11, 2014, 2:32 PM), <http://www.cnet.com/news/bitcoin-platform-coinbase-expands-to-13-european-countries>.

105. See *id.* (discussing Coinbase's statistical information).

106. See William Alden, *Start-Up Unveils Bitcoin Payments Product*, N.Y. TIMES DEALBOOK (Mar. 26, 2014, 9:01 AM), http://dealbook.nytimes.com/2014/03/26/start-up-unveils-bitcoin-payments-product-and-additional-financing/?_php=true&_type=blogs&_php

There are a number of payment technologies competing for the replacement of cash purchases.¹⁰⁷ Alternative Cryptocurrencies (“altcoins”) are cryptocurrencies other than bitcoin, with the majority being “forks”¹⁰⁸ of the bitcoin software.¹⁰⁹ Other major competitors include Paypal,¹¹⁰ credit cards,¹¹¹ Apple Pay,¹¹² and Money

=true&_type=blogs&_r=1 (discussing the rise of Circle and its inaugural payment product); see also Daniel Cawrey, *GoCoin Raises \$550k to Process Bitcoin Payments in Asia and South America*, COINDESK (Nov. 7, 2013, 12:30 PM), <http://www.coindesk.com/gocoin-raises-500k-bitcoin-payments-asia-south-america/> (explaining the role of bitcoin and GoCoin as another bitcoin product competitor).

107. See Carrie Kirby, *Alternative Cryptocurrencies Thrive in Bitcoin's Shadow*, COINDESK, (Dec. 24, 2013, 2:30 PM), <http://www.coindesk.com/alternative-cryptocurrencies-thrive-bitcoins-shadow/> (describing alternative cryptology).

108. A fork is a clone of the bitcoin software with a number of changes that differentiate it from the original bitcoin source code. The first major fork of bitcoin was “litecoin,” created by an ex-google employee. *Id.* Litecoin adapted many of the features of the bitcoin software, but also increased transaction times. See Charles Lee (Coble), [ANN] *Litecoin - A Lite Version of Bitcoin. Launched!*, BITCOINTALK.ORG (Oct. 9, 2011, 6:14 AM), <https://bitcointalk.org/index.php?topic=47417.0> (reporting the launch of the litecoin wallet and source code); Alistair Charlton, *Litecoin Value Leaps 100% in a Day as Market Cap Passes \$1bn*, INT. BUSINESS TIMES (NOV. 28, 2013), <http://www.ibtimes.co.uk/litecoin-value-leaps-100-percent-market-cap-525867> (showing that litecoin can be mined more quickly and with less processing power).

109. Some of the altcoins with the largest marketcap include litecoin, dogecoin, NXT, and peercoin. See *Crypto-Currency Market Capitalizations*, COINMARKETCAP.COM, <http://coinmarketcap.com/> (last visited Nov. 3, 2014) (displaying a chart of current crypto-currency market capitalization data). Bitcoin's popularity has had a large impact in raising awareness of other cryptocurrencies. See Gandal & Halaburda, *supra* note 86, at 13 (discussing how Bitcoin has helped pave the way for the success of other cryptocurrencies to be successful). In particular, Dogecoin, based on the doge meme, gained a following after raising dogecoins for particular charitable causes. Paul Vigna & Michael J. Casey, *BitBeat: Much Good, Dogecoin; So Hip*, WALL ST. J., (Mar. 13, 2014, 4:26 PM), <http://blogs.wsj.com/moneybeat/2014/03/13/bitbeat-much-good-dogecoin-so-hip> (discussing how Dogecoin was invented). Unlike bitcoin, 100 billion dogecoins will have been generated approximately one year after it launched, and 5 billion in subsequent years. Additionally, instead of confirming within 8-10 minutes as with bitcoin, dogecoin transactions take approximately three minutes to confirm. Rob Wile, *DOGECOIN: How a Thing that Started as a Joke Became the Hottest Digital Currency in the World*, BUSINESS INSIDER (Dec. 19, 2013, 10:51 AM), <http://www.businessinsider.com/what-is-dogecoin-2013-12> (providing background information on one of bitcoin's competitors, dogecoin).

110. Paypal was founded in 1998 and in 2002 was purchased by the online auction giant, eBay. Andrés Guadamuz González, *PayPal: The Legal Status of C2C Payment Systems*, 20 COMPUTER L. & SECURITY REV. 293, 293 (2004) (discussing PayPal's background). As of Q2 2014, Paypal has over 150 million active users worldwide. *Number of Paypal's Total Active Registered User Accounts from 1st Quarter 2010 to 3rd Quarter 2014 (in Millions)*, STATISTA, <http://www.statista.com/statistics/218493/paypals-total-active-registered-accounts-from-2010> (last visited Sept. 19, 2014) (showing data for PayPal's registered active users from 2010 to 2014). Since its launch, Paypal has garnered many complaints, including allegations of fraudulent transactions and chargebacks. See *Consumer Complaints & Reviews*, CONSUMERAFFAIRS, http://www.consumeraffairs.com/online/paypal_02.html (last visited Nov. 9, 2014) (reporting a long list of customer complaints).

111. See *Interview with Fred Ehrsam*, TOP OF MIND, at 8 (Mar. 11, 2014), <http://www.paymentlawadvisor.com/files/2014/01/GoldmanSachs-Bit-Coin.pdf> (stating that while bitcoin transactions are basically free, credit card companies charge 2-3%, which is also substantially

Transmitters/Electronic Funds Transfer.¹¹³

III. BITCOIN AROUND THE WORLD

Bitcoin case law, regulation, and guidance are growing around the world.¹¹⁴ A number of nations have either explicitly or subtly defined the nature of bitcoin in terms of regulation and taxation.¹¹⁵ The nations selected below offer the most extensive information available on the regulation and classification of bitcoin.¹¹⁶ They provide the best guidance for determining the proper regulation and taxation in the United States.¹¹⁷ Furthermore, some nations, such as the United Kingdom, are hoping to use their regulatory positions to leverage themselves as contenders for the headquarters of bitcoin, electronic currency, and payment system companies worldwide.¹¹⁸ Examining other nations provides a point of comparison and advice for classification of bitcoin in the United States.

Since bitcoin regulation is relatively new, most of the guidance comes from national taxing authorities.¹¹⁹ Financial regulation by these nations is not divided among various governmental agencies as it is in the United States, and therefore classification in terms of regulation is not as important in these countries.¹²⁰ Nevertheless, many nations classify bitcoin as both a currency and

more than the 1% coinbase charges).

112. On September 6, 2014, Apple announced Apple Pay, a system that uses near field technology to conduct credit card transactions. *See Apple Announces Apple Pay: Transforming Mobile Payments with an Easy, Secure & Private Way to Pay*, APPLE.COM, (Sept. 9, 2014) <https://www.apple.com/pr/library/2014/09/09Apple-Announces-Apple-Pay.html> (explaining the process of using Apple Pay). A user places an iPhone near a compatible credit card scanner and uses his or her fingerprints on the iPhone to authenticate the transaction. *Id.* The system creates a “dynamic security code,” or uses a cryptographic “token,” to securely verify each transaction, similar to bit coin. *See* Juli Clover, *Apple Pay Roundup: Everything We Know, Coming in October*, MACRUMORS.COM (Sept. 26, 2014, 2:03 PM), <http://www.macrumors.com/2014/09/26/apple-pay-roundup/> (explaining the security processes behind Apple Pay).

113. *See Consumer Information: Electronic Banking*, FED. TRADE COMM’N, <http://www.consumer.ftc.gov/articles/0218-electronic-banking#electronic> (last visited Nov. 15, 2014) (discussing the use of money transmitters).

114. *See Is Bitcoin Legal?*, COINDESK, <http://www.coindesk.com/information/is-bitcoin-legal/> (last updated Aug. 19, 2014) (explaining the concerns over the laws and regulation of bitcoin).

115. *See id.* (discussing the regulation and taxation of bitcoin).

116. *See id.* (showing different countries’ regulation of bitcoin).

117. *See generally id.*

118. *See* Jemima Kelly, *In Boon for Bitcoin, UK to Regulate Digital Currency Exchanges*, REUTERS (Mar. 18, 2015, 3:54 PM), <http://www.reuters.com/article/2015/03/18/us-britain-budget-digital-currencies-idUSKBN0ME1XD20150318> (discussing the steps the UK has taken to regulate bitcoin).

119. *See* Stephanie Soong Johnston, *News Analysis: The Tax Implications of Bitcoin*, TAXANALYSTS, (Mar. 20, 2014), <http://www.taxanalysts.com/www/features.nsf/Features/AB9F797DB21CEC2385257CA10042219C> (discussing how different countries’ tax agencies regulate bitcoin).

120. *See id.* (discussing how different countries’ tax regulations affect the regulation of bitcoin in comparison to the United States).

investment/asset due to its broad and flexible nature within tax classifications.¹²¹

A. *United Kingdom*

The United Kingdom classifies bitcoin essentially as a currency, with some limitations.¹²² Although the United Kingdom has not issued any regulatory guidelines formally classifying bitcoin, it has provided some guidance on the issue of taxation.¹²³ On March 3, 2014, Her Majesty's Revenue and Customs Department (HMRC)¹²⁴ exempted most bitcoin related activities (trading, mining, etc.) from taxation.¹²⁵ HMRC did state, however, that where companies buy, sell, or exchange bitcoin "the profits or losses on exchange movements between currencies are taxable."¹²⁶ Notably, bitcoin businesses will not be charged on the marginal gains or losses when they receive bitcoin for products.¹²⁷ This classification of bitcoin bases its policy on European Union (E.U.) law that exempts payments and transfers of negotiable instruments from tax.¹²⁸ Previously, HMRC classified bitcoin as "single purpose vouchers," rendering any sales or product purchase liable to a value-added tax of 10-20%.¹²⁹

HMRC's guidance treats bitcoin as private money and avoids clearly answering the difficult question of whether bitcoin is a currency.¹³⁰ Although the ruling does not answer the question of whether to treat bitcoin as a currency, according to Serbian attorney Miljan Mimic, it "effectively treats it as such."¹³¹ By

121. See *Revenue and Customs Brief 9 (2014): Bitcoin and Other Cryptocurrencies*, HM REVENUE & CUSTOMS (Mar. 3, 2014), <https://www.gov.uk/government/publications/revenue-and-customs-brief-9-2014-bitcoin-and-other-cryptocurrencies/revenue-and-customs-brief-9-2014-bitcoin-and-other-cryptocurrencies> (showing how bitcoin is classified for tax purposes in other countries).

122. See *id.* (explaining the United Kingdom's classification of bitcoin).

123. See generally *id.*

124. Previously, it had been reported that HMRC would classify bitcoin as "single purchase vouchers." See Tom Gullen, *Bitcoin's UK Future Looks Bleak*, SCIRRA BLOG (Nov. 11, 2013), <https://www.scirra.com/blog/tom/4/bitcoin-uk-future-looks-bleak> (discussing HMRC's report and its effects on bitcoin users). This would require any sales of bitcoin to pay a 10–20% tax in any instance. *Id.*

125. See *Revenue and Customs Brief 9*, *supra* note 121 (detailing tax exemptions related to bitcoin for VAT purposes).

126. *Id.*

127. See Pete Rizzo, *UK Eliminates Tax on Bitcoin Trading, Publishes Official Guidance*, COINDESK (Mar. 2, 2014, 9:21 PM), <http://www.coindesk.com/top-uk-tax-agency-eliminate-20-levy-bitcoin-trading> (reporting that bitcoin businesses will not be taxed on margins).

128. Miljan Mimic, *Regulatory Challenges of Alternate E-Currency Comparative Analysis of Bitcoin Model in US and EU Jurisdictions* 14 (2014), http://www.etd.ceu.hu/2014/mimic_miljan.pdf.

129. Chris Skinner, *The Challenge of Being a Bitcoin Trader*, FIN. SERVICES CLUB BLOG (Nov. 13, 2013), <http://thefinanser.co.uk/fsclub/2013/11/the-challenge-of-being-a-bitcoin-trader.html>.

130. See *Revenue and Customs Brief 9*, *supra* note 122 (containing HMRC's policy guidance on bitcoin).

131. Mimic, *supra* note 128, at 14.

taxing “profits or losses” on certain transactions for businesses and not individuals, HMRC treats bitcoin partially as a financial investment.¹³² This is very similar to the taxation of the profits made by trading foreign currencies in the United Kingdom.¹³³ Significantly, the ruling exempts from taxation any gains in transactions that involve the purchase of tangible and intangible goods with bitcoin.¹³⁴

Besides HMRC's taxation reports, there are no other rules or regulations in the United Kingdom that guide the classification of bitcoin.¹³⁵ However, on August 6, 2014, Chancellor George Osborne commissioned the United Kingdom Treasury to explore the risks and benefits of cryptocurrencies.¹³⁶ This may lead to the regulation of bitcoin and other cryptocurrencies, and potentially call for a separate classification of bitcoin for regulatory purposes. Nevertheless, HMRC noted that the position adopted on bitcoin in the United Kingdom will likely be consistent with any measures that may eventually be implemented throughout the E.U.

B. Germany

Germany became the first European country to recognize bitcoin as a payment mechanism when the Federal Ministry of Finance recognized bitcoins as unit of accounts or “private money” in 2013.¹³⁷ In its February 17, 2014 report, the Federal Financial Supervisory Authority¹³⁸ (BaFin) further affirmed the Ministry's ruling of bitcoin as a “unit of account.”¹³⁹ Units of accounts, BaFin stated, have the “function of private means of payment in barter transactions, as well as any other substitute currency used by virtue of private-law agreements as a means of payment in multilateral settlement accounts.”¹⁴⁰ In other words, bitcoin is a form of “private money” that “can be used for tax and trading purposes” in Germany.¹⁴¹

132. See CFM61040 - Foreign Exchange: Tax Rules on Exchange Gains and Losses: Examples of Exchange Gains and Losses, HM REVENUE & CUSTOMS, <http://www.hmrc.gov.uk/manuals/cfmmanual/cfm61040.htm> (last visited Nov. 15, 2014) (showing examples of computing exchange gains and losses in foreign currency for purposes of tax in the United Kingdom).

133. See, e.g., CFM61020 - Foreign Exchange: Tax Rules on Exchange Gains and Losses: The FA 2002 Changes, HM REVENUE & CUSTOMS, <http://www.hmrc.gov.uk/manuals/cfmmanual/cfm61020.htm>.

134. See Rizzo, *supra* note 127.

135. See *id* (noting the lack of clear rules on bitcoin in the UK).

136. UK to Explore Bitcoin Role - George Osborne, BBC NEWS (Aug. 6, 2014), <http://www.bbc.co.uk/news/uk-28670414>.

137. Mimic, *supra* note 129, at 12–13.

138. Called *Bundesanstalt für Finanzdienstleistungsaufsicht* in German, “BaFin” is an independent federal institution that falls under the supervision of the Federal Ministry of Finance in Germany. *BaFin – About Us*, BAFIN, http://www.bafin.de/SharedDocs/Downloads/EN/Broschuere/dl_b_bafin_about_us.pdf?__blob=publicationFile (last visited Nov. 17, 2014).

139. Jens Münzer, *Bitcoin: Supervisory Assessment and Risks to Users*, BAFIN (Feb. 17, 2014), http://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2014/fa_bj_1401_bitcoins_en.html [hereinafter *Bitcoin: Supervisory Assessment*].

140. *Id.*

141. Matt Clinch, *Bitcoin recognized by Germany as ‘private money’*, CNBC (Aug. 13,

BaFin asserted that bitcoins are not “e-money,” as defined by the German Payment Services Supervision Act, because there is no central issuer of bitcoin.¹⁴² E-money under German law is the “digital equivalent of cash” and thus Germany does not consider bitcoin to be a currency.¹⁴³ BaFin stated that “units of account,” and thus bitcoins, do not qualify as a foreign currency.¹⁴⁴

BaFin’s classification of bitcoin as a “unit of account” subjects bitcoin to authorization pursuant to the Kreditwesengesetz,¹⁴⁵ or the Banking Act of the Federal Republic of Germany.¹⁴⁶ Nevertheless, BaFin is the sole financial regulator;¹⁴⁷ therefore, they are the regulator of bitcoin. By classifying bitcoin as a “unit of account,” any profit from bitcoin is subject to a 25% capital gains tax, unless held for more than a year.¹⁴⁸

C. Sweden

The Swedish government has classified bitcoin as a capital investment object.¹⁴⁹ However, Swedish law is outdated and is likely unadaptable to the complexities of the modern financial world.¹⁵⁰ According to the Swedish Financial Supervisory Authority,¹⁵¹ anyone who “engage[s] in currency exchange or other financial activities” qualifies as a financial institution.¹⁵² This places all qualified financial institutions under the umbrella of the Swedish Financial Supervisory Authority for purposes of Anti-Money Laundering Rules.¹⁵³ Additionally, bitcoin

2013), <http://www.cnn.com/id/100971898>.

142. *Id.*

143. *Id.*

144. *Id.*

145. See Kreditwesengesetz [KWG] [Banking Act], Sep. 9, 1998, BGBl I at 2776 (Ger.), <http://www.iuscomp.org/gla/statutes/KWG.htm> (outlining the law for all “unit accounts”).

146. See *Bitcoin: Supervisory Assessment*, *supra* note 139 (explaining the Banking Act and its relationship to bitcoin).

147. See Rahul Prabhakar, *Globalized Finance and National Regulation: The Influence of Internationalization on Supervisory Consolidation* 21 (Mar. 18, 2010) (unpublished revised B.A. thesis, Harvard University) (on file with author), available for download at <http://ssrn.com/abstract=1574484> (discussing the consolidation of regulatory structures, including BaFin).

148. *Germany Plans Tax on Bitcoin After Virtual Currency Recognised as ‘Private Money,’* THE TELEGRAPH (Aug. 19, 2013, 2:15 PM), <http://www.telegraph.co.uk/finance/globalbusiness/10252383/Germany-plans-tax-on-bitcoin-after-virtual-currency-recognised-as-private-money.html>.

149. Tord Svensson & Caroline Wikström, *Lending and Taking Security in Sweden: Overview*, PRACTICAL LAW (Apr. 1, 2015), <http://us.practicallaw.com/5-511-8148> (describing the effect of Sweden’s treatment of bitcoin).

150. See *id.* (describing the effect of Sweden’s treatment of bitcoin).

151. In Swedish, the Swedish Financial Supervisory Authority is known as “Finansinspektionen.” FINANSINSPEKTIONEN, <http://www.fi.se/Folder-EN/Startpage/> (last visited Oct. 17, 2015).

152. *Finansiella Institute*, FINANSINSPEKTIONEN, <http://www.fi.se/Tillstand/Soka-tillstand/Valutavaxlare-eller-annan-finansiell-verksamhet> (last visited Jan. 11, 2015).

153. See generally *id.*

and virtual currency exchanges and businesses must register with the Financial Supervisory Authority and meet the stringent requirements that all other financial institutions face in Sweden.¹⁵⁴

Originally, in October 2003, the Swedish Tax Board ruled that bitcoin was considered a currency for tax and regulation purposes.¹⁵⁵ The Board stated that bitcoin transactions would not be subject to any Swedish tax implications.¹⁵⁶ Similar to other European nations, the Swedish Tax Board ruled bitcoin would be subject to the jurisdiction of the Financial Supervisory Authority, the sole financial Swedish regulator, for regulatory purposes.¹⁵⁷ Soon after the decision, the Swedish Tax Authority¹⁵⁸ appealed the ruling by the Swedish Tax Board.¹⁵⁹

Reversing the position the government had previously taken, the Swedish Tax Authority ruled on April 24, 2014 that for tax purposes bitcoin would not be considered a currency or foreign currency.¹⁶⁰ Instead, the Authority declared that bitcoin is a “capital investment object,” similar to its classification of copyrights and commodities.¹⁶¹ This classification subjects bitcoin to capital gains tax under Chapter 52 of the Swedish Income Act.¹⁶² Significantly, this would require the Swedish consumers to record the price they paid for the bitcoin and the price at which they spent the bitcoin.¹⁶³ Consequently, Sweden places an undue burden on individuals seeking to use bitcoin through its classification of bitcoin as a capital investment object.¹⁶⁴

154. *Is Bitcoin Legal?*, COINDESK, <http://www.coindesk.com/information/is-bitcoin-legal> (last updated Aug. 19, 2014).

155. *See Mervärdesskatt: Handel med bitcoins [VAT: Trade with Bitcoin]*, SKATTERÄTTSNÄMNDEN, <http://skatterattsnamnden.se/skatterattsnamnden/forhandsbesked/2013/forhandsbesked2013/mervardesskatthandelmedbitcoin.5.46ae6b26141980f1e2d29d9.html> (last visited Nov. 19, 2014) (explaining that, since the supply of bitcoins requires notification obligations such as financial services, bitcoin is a means of payment used in a similar way as legal tender and is similar to electronic money).

156. *Id.*

157. *Regulation of Bitcoin in Selected Jurisdictions: Sweden*, LIBRARY OF CONGRESS, <http://www.loc.gov/law/help/bitcoin-survey/#sweden> (last updated Nov. 2, 2014).

158. In Swedish, the Swedish Tax Authority is known as “Skatterättsnämnden.” *See* SKATTERÄTTSNÄMNDEN, *supra* note 155 (containing regulations issued by the Swedish Tax Board in which the Board is named as Skatterättsnämnden).

159. *Regulation of Bitcoin in Selected Jurisdictions: Sweden*, *supra* note 157.

160. *See Taxation on mining of bitcoin and other virtual currencies, etc.*, SKATTEVERKET (Apr. 23, 2014), <http://www4.skatteverket.se/rattsligvagledning/338713.html?q=131+191846-15%2F111> (showing the Swedish Tax Authority’s ruling that the mining of bitcoin is not taxable activity for VAT purposes).

161. *Id.*

162. *Id.*

163. *See id.* (explaining how disposing of bitcoin means imposing a capital gains tax).

164. *See Rizzo*, *supra* note 127 (stating that the United Kingdom’s tax system of classifying bitcoin as currency is the most progressive and comprehensive in the world).

D. Australia

The Australian government has only passed laws or issued guidance on the regulatory classification of bitcoin for tax purposes.¹⁶⁵ A bitcoin transaction in Australia is treated, for tax purposes, “like barter transactions with similar taxation consequences.”¹⁶⁶ According to the Australian Tax Office, “[b]itcoin is neither money nor a foreign currency, and the supply of bitcoin is not a financial supply for goods and services tax (GST) purposes.”¹⁶⁷ Consequently, where bitcoin is used for personal transactions, such as the consumption of personal goods and services, there is generally “no income tax or GST implications.”¹⁶⁸ On the other hand, a business accepting bitcoin as a payment for goods or services must calculate and record the fair market value of the bitcoin in Australian dollars at the time the transaction took place.¹⁶⁹ Despite the additional work required for accepting bitcoin transactions, more and more Australian companies started accepting bitcoin, leading to a growth of 30% per month in bitcoin transactions at Australian retailers.¹⁷⁰ The business must pay GST taxes on the fair market value of the transaction and deductions can be made on expenses bought with bitcoin.¹⁷¹ Controversially, GST is “also payable when a business supplies Bitcoin in the course of its operations.”¹⁷² This requires bitcoin exchanges to pay GST taxes on every transaction.¹⁷³

For “capital gains tax purposes” bitcoin is considered an asset.”¹⁷⁴ This requires bitcoin investors to record the date of the buying or selling transaction, the amount in Australian dollars, the purpose of the transaction, and the identity of the other party.¹⁷⁵ Tax must then be paid (or deducted) on “the difference between what

165. See generally *Tax Treatment of Crypto-Currencies in Australia – Specifically Bitcoin*, AUSTRALIAN TAXATION OFFICE, <https://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia—specifically-bitcoin> [hereinafter *Australian Tax Treatment*] (last updated Dec. 18, 2014).

166. *ATO Delivers Guidance on Bitcoin*, AUSTRALIAN TAXATION OFFICE (Aug. 20, 2014), <https://www.ato.gov.au/Media-centre/Media-releases/ATO-delivers-guidance-on-Bitcoin>.

167. *Australian Tax Treatment*, *supra* note 165.

168. However, a major exception is that “the cost of the [b]itcoin” must be AU \$10,000 or less. *Id.*

169. *Id.*

170. See Chris Pash, *Here’s Where You Can Spend Bitcoin in Australia, And What You Can Buy*, BUSINESS INSIDER (July 31, 2014, 1:20 PM), <http://www.businessinsider.com.au/where-to-spend-bitcoin-in-australia-2014-7> (detailing the types of companies that have accepted bitcoin as payment).

171. *Id.*

172. *Id.*; see also Supratim Adhikari, *Bitcoin to Cop GST: ATO*, AUSTRALIAN BUSINESS REVIEW (Aug. 21, 2014), <http://www.theaustralian.com.au/business/latest/bitcoin-to-cop-gst-ato/story-e6frg90f-1227030976018?nk=9e836f3147831c471b2d1f787b2c7ba7> (asserting that the “double GST” may convince bitcoin-related businesses to conduct business offshore from Australia).

173. See generally *id.*

174. *Australian Tax Treatment*, *supra* note 165.

175. See *id.* (providing a summary of what users must report from bitcoin transactions).

it cost you to get an asset and what you received when you disposed of it.”¹⁷⁶ This increased regulation coupled with constant concerns linking bitcoin to crime caused Australian banks to close 13 of the 17 bitcoin exchanges in the country, possibly signaling an end for the once growing market for bitcoin in the country.¹⁷⁷

E. Canada

Canada is one of the only nations to have laws or guidance on both regulation and taxation at the national level.¹⁷⁸ Similar to Australia, Canada announced in April 2013 that bitcoin is classified in two different ways for taxation purposes.¹⁷⁹ When bitcoins are used to pay for goods and services it will be considered bartering.¹⁸⁰ The Canada Revenue Agency states that in a barter transaction, “we [the agency] generally consider that the value of whatever is received is at least equal to the value of whatever is given up.”¹⁸¹ If a user is trading bitcoin for profit, the Canada Revenue Agency will essentially treat bitcoin like a commodity.¹⁸² Depending on the specific circumstances, the resulting gains or losses could be treated as income or capital.¹⁸³

176. Capital Gains Tax, AUSTRALIAN TAX OFFICE, <https://www.ato.gov.au/General/Capital-gains-tax> (last updated Jun. 10, 2015).

177. Byron Kaye & Swati Pandey, *Bitcoin Flounders in Australia as Regulatory Worries Bite*, BUSINESS INSIDER (Oct. 3, 2015, 11:18 PM), <http://www.businessinsider.com/r-bitcoin-flounders-in-australia-as-regulatory-worries-bite-2015-10>.

178. See Christine Duhaime, *Canada Implements World's First National Digital Currency Law; Regulates New Financial Technology Transactions*, DUHAIME LAW (June 22, 2014), <http://www.duhaime.com/2014/06/22/canada-implements-worlds-first-national-bitcoin-law> (“On June 19, 2014, the Parliament of Canada approved the world’s first national law on digital currencies, and certainly the world’s first treatment in law of digital currency financial transactions under national anti-money laundering law.”). The Bank of Canada is looking into creating its own digital currency, according to the bank’s deputy senior governor. Matthew Kang, *Bank of Canada Looking into Issuing Digital Currency*, CBC NEWS (Nov. 14, 2014, 7:47 AM), <http://www.cbc.ca/news/canada/kitchener-waterloo/bank-of-canada-looking-into-issuing-digital-currency-1.2834759>. However, the bank official also stated that it is very unlikely that bitcoin and other cryptocurrencies would “ever truly circumvent central banks” and overtake national currencies in usage. *Id.*

179. See Bonnie Allen, *Bitcoin Aren't Tax Exempt, Revenue Canada Says*, CBC NEWS (Apr. 26, 2013, 5:02 PM), <http://www.cbc.ca/news/business/bitcoin-aren-t-tax-exempt-revenue-canada-says-1.1395075> (showing that the price swing in bitcoin cash value caused buyers and sellers to lose or gain money which raised the question of how these gains or losses would be handled during tax-time). *But see* Michael Cooke, *2014-0525191E5 E – Virtual Currencies (Bitcoins)*, TAX INTERPRETATIONS (Mar. 28, 2014), <http://www.canadiantaxlitigation.com/wp-content/uploads/2014/04/2014-0525191E5.txt> (stating that the amount that bitcoin transactions will be taxed will be decided on a case-by-case basis). Whether an activity is for-profit “is a question of fact that can only be determined on a case-by-case basis.” *Id.*

180. Cooke, *supra* note 179.

181. *Barter transactions*, CANADA REVENUE AGENCY, <http://www.cra-arc.gc.ca/E/pub/tp/it490/it490-e.html> (last updated Sept. 6, 2002).

182. See Allen, *supra* note 179 (showing that bitcoin is treated as a commodity because it is bought and sold as a commodity).

183. *Id.*

On June 29, 2014, “the Parliament of Canada approved what is likely the world’s first national law on digital currencies,” Bill C-31.¹⁸⁴ This Bill amends the Proceeds of Crime (Money Laundering) and Terrorist Financing Act (PCMLTF Act)¹⁸⁵ to gain authority over digital currency transactions in terms of anti-money laundering laws.¹⁸⁶ Bill C-31 subjects any person or business “dealing in virtual currencies”¹⁸⁷ to commit to record keeping, verification procedures, suspicious transaction reporting and registration requirements under the PCMLTF Act as a money service business.¹⁸⁸ Additionally, these persons or businesses must register with the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC).¹⁸⁹ Finally, banks are barred from opening accounts for those “dealing in virtual currencies” that are unregistered as a money service business.¹⁹⁰ Furthermore, it is unclear who “deals in virtual currencies”—does this pertain to bitcoin exchanges, users, and/or merchants? This lack of clarity may deter Canadians from using bitcoin or creating bitcoin-based companies.

F. Finland

Bitcoin in Finland is classified differently in terms of regulation and taxation.¹⁹¹ Similar to other nations, the Finnish Tax Authority, Vero Skatt, has issued taxation guidance that classifies bitcoin separately in two situations.¹⁹² The Finnish rules on taxation of capital gains apply when bitcoin is transferred to another currency.¹⁹³ On the other hand, if bitcoin is used as a payment for goods and services, it is treated as a trade for taxation purposes, “and the increase in value that the currency might have gained after it was obtained is taxable.”¹⁹⁴ Additionally, any loss that may accompany the sale or transfer of bitcoin is not deductible under the Finnish Income Taxation Act; since this type of loss is not

184. Duhaime, *supra* note 178.

185. *Proceeds of Crime (Money Laundering) and Terrorist Financing Act*, S.C. 2000, c. 17 <http://laws-lois.justice.gc.ca/eng/acts/P-24.501> (last updated June 23, 2015).

186. Duhaime, *supra* note 179.

187. *An Act to Implement Certain Provisions of the Budget Tabled in Parliament on February 11, 2014 and Other Measures*, R.S.C. 2014 c. C-31 (Can.), <http://www.parl.gc.ca/HousePublications/Publication.aspx?Language=E&Mode=1&DocId=6671392&File=344>. The law does not define “dealing in virtual currencies.” *Id.* This could be very problematic since we do not know if this would apply to every bitcoin user, although unlikely. *Id.*

188. *Id.*

189. *Id.*

190. *Id.*

191. See Nermin Hajdarbegovic, *Finland Classifies Bitcoin as VAT-Exempt Financial Service*, COINDESK (Nov. 19, 2014), <http://www.coindesk.com/finland-classifies-bitcoin-vat-exempt-financial-service/> (“Finnish regulators have classified bitcoin as a financial service, thus granting it VAT-exempt status.”).

192. *Regulation of Bitcoin in Selected Jurisdictions: Finland*, LIBRARY OF CONGRESS, <http://www.loc.gov/law/help/bitcoin-survey/> (last updated July 1, 2015).

193. *Id.*

194. *Id.*

explicitly stated in the legislation, it is therefore not deductible.¹⁹⁵

While bitcoin in Finland is taxed in two separate ways, officials from the Bank of Finland have stated that bitcoin is “more comparable to a commodity.”¹⁹⁶ The head of oversight at the Bank of Finland in Helsinki stated that bitcoin does not fit within the definition of an official currency under Finnish law.¹⁹⁷ Additionally, he stated that in order for bitcoin to be considered simply a payment system the “law stipulates that a payment instrument must have an issuer responsible for its operation.”¹⁹⁸ Thus, bitcoin is regulated in Finland similar to the regulation of a commodity.¹⁹⁹

G. Netherlands

While the Dutch government has not explicitly defined bitcoin, it has specified what bitcoin is not classified as through both guidance reports and case law.²⁰⁰ In the Netherlands bitcoin is neither legal tender nor electronic money.²⁰¹ The Dutch Minister of Finance stated that bitcoin does not fall within the scope of the Act on Financial Supervision²⁰² of the Netherlands.²⁰³ This Act defines electronic money as “a monetary value stored on an electronic device or stored on distance in a central accounting record,” and an “electronic money institution” as “a party, not being a bank, whose business it is to obtain the disposal of funds in exchange for which electronic money with which payments can be made is issued, also to parties other than the party issuing the electronic money.”²⁰⁴ According to one leading Dutch lawyer, because bitcoins “do not represent a claim on the issuer and aren’t necessarily issued in exchange for money, they aren’t electronic

195. *Id.*

196. Kati Pohjanpalo, *Bitcoin Judged Commodity in Finland After Failing Money Test*, BLOOMBERG (Jan. 20, 2014, 7:50 AM), <http://www.bloomberg.com/news/articles/2014-01-19/bitcoin-becomes-commodity-in-finland-after-failing-currency-test>.

197. *Id.*

198. *Id.*

199. *Id.*

200. See Aaron van Wirdum, *Court appeal divides Dutch bitcoin community*, THE COINTELEGRAPH (Mar. 1, 2015, 9:50 AM), <http://cointelegraph.com/news/113577/court-appeal-divides-dutch-bitcoin-community> (detailing the Dutch treatment of bitcoin).

201. See Anita Ramasatry, *Is Bitcoin Money? Lawmakers, Regulators and Judges Don't Agree*, VERDICT (Sept. 9, 2014), <https://verdict.justia.com/2014/09/09/bitcoin-money> (“At present there is no consensus as to what we should call Bitcoin or how it should be defined for purposes of applying legal rules.”).

202. In Dutch, the Act on Financial Supervision is called the Wet op het financieel toezicht.

203. *Minister Dijsselbloem: virtuele valuta's zoals Bitcoin vallen niet onder toezicht AFM en DNB* [Minister Dijsselbloem: Virtual Currencies like Bitcoin not Under Supervision of AFM and DNB], AFM (Dec. 20, 2013), <http://www.afm.nl/nl/nieuws/2013/dec/toezicht-bitcoins.aspx>.

204. Wet op het financieel toezicht [Act on Financial Supervision] (Sept. 28, 2006, as last amended Sept. 19, 2013, in force on Jan. 1, 2014) § 1:1, available at http://wetten.overheid.nl/BWBR0020368/geldigheidsdatum_31-12-2013 (Neth.); unofficial English translation as of Nov. 16, 2009, available at <https://www.rijksoverheid.nl/documenten/brieven/2009/11/16/engelse-vertaling-van-de-wft>.

money.”²⁰⁵

A Dutch district court judge recently ruled on the nature of bitcoin, holding that it is not “legal tender.”²⁰⁶ In this case, a buyer attempted a purchase of BTC2,750 from the seller; however, after only BTC990 was handed over and there were several delays of delivering the balance, the buyer filed suit.²⁰⁷ The court ordered the defendant seller to pay back the original value of the unpaid amount, plus interest and legal costs.²⁰⁸ The court also awarded the buyer damages due to the surge in price of bitcoin after the transaction took place.²⁰⁹ In ruling for the buyer, the court held “that Bitcoin, like gold, is a medium of exchange that is an acceptable form of payment in the country but that cannot be defined as legal tender, common money, or electronic money.”²¹⁰ Consequently, bitcoin in the Netherlands is currently not a currency, legal tender, or electronic money.²¹¹

IV. U.S. LAW

A. Current Status

While U.S. law and guidance on bitcoin is probably the most advanced in the world, serious complexities are present due to various federal and state agencies as well as common law.²¹² There are a number of concerns that regulators are currently seeking to address.²¹³ For instance, the IRS and other federal agencies are extremely concerned with tax evasion and money laundering via bitcoin.²¹⁴ Due to its anonymity, the federal government is also apprehensive about its use in crime and terrorism.²¹⁵ Government agencies are looking to address the security risks that

205. Branko Collin, *Bitcoin income shall be taxed, Dijsselbloem says*, 24 ORANGES (June 17, 2013, 12:19 PM), <http://www.24oranges.nl/2013/06/17/bitcoin-income-shall-be-taxed-dijselbloem-says>.

206. Wirdum, *supra* note 200.

207. See Wendy Zeldin, *Netherlands: Local Court Ruling on Bitcoin Transaction*, LIBRARY OF CONGRESS (June 4, 2014), http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205404009_text.

208. *Id.*

209. *Id.*

210. *Id.*

211. Ramasatry, *supra* note 201.

212. See John William Nelson, *Why Bitcoin Isn't a Security Under Federal Securities Law*, LEX TECHNOLOGIAE (June 26, 2011, 11:49 PM), <http://www.lextechnologiae.com/2011/06/26/why-bitcoin-isnt-a-security-under-federal-securities-law/> (showing that questions still exist as to whether bitcoin even falls under federal securities law).

213. See EDWARD V. MURPHY, M. MAUREEN MURPHY & MICHAEL V. SEITZINGER, CONG. RESEARCH SERV., R43339, BITCOIN: QUESTIONS, ANSWERS, AND ANALYSIS OF LEGAL ISSUES 19 (2015) (discussing existing concerns relating to bitcoin, including legal and regulatory issues at the federal, state, and international level).

214. See *id.* (showing that such concerns exist because bitcoin earnings are not reported to the IRS, users are provided some level of anonymity, and such digital currencies are able to operate without involving a financial institution).

215. See *id.* at 29 (describing the need for countries to take a risk-based approach to identify and mitigate money laundering and terrorist financing risks implicated in virtual currency

exchanges and individuals face in terms of the storage of their bitcoins.²¹⁶ Consequently, bitcoin presents a number of challenges for the federal government, furthering the need for clarity in the classification of bitcoin;²¹⁷ classification is necessary in order to determine which federal agency has regulatory power over bitcoin and how they should regulate bitcoin.

This section will first examine the guidance and papers issued by the United States Financial Crimes Enforcement Network (FinCEN),²¹⁸ the Federal Reserve, and the Internal Revenue Service.

1. FinCEN

On March 18, 2013, FinCEN issued guidance on the application of its regulations to the usage of virtual currencies.²¹⁹ FinCEN described virtual currencies and bitcoin as “a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency.”²²⁰ FinCEN contrasts bitcoin to “real currency,”²²¹ and states that bitcoin/virtual currencies “either ha[ve] equivalent value in real currency, or act as . . . substitute[s] for real currency.”²²² The guidance further states that a person who obtains or creates decentralized virtual currencies and uses them to purchase goods or services is not subject to regulation as a money transmitter.²²³ Next, it will review the recent case, *SEC v. Shavers*, where a U.S. District Court judge held that bitcoin is a currency.²²⁴ Finally, regulations and proposals of New York and California, the states most involved in the regulation of bitcoin, will be discussed.

activities).

216. *See id.* at 8 (detailing notable breaches of the bitcoin network that have occurred).

217. *See* Fed. Bureau of Investigation, (U) *Bitcoin Virtual Currency: Unique Features Present Distinct Challenges for Deterring Illicit Activity*, (Apr. 24, 2012), http://www.wired.com/images_blogs/threatlevel/2012/05/Bitcoin-FBI.pdf (showing the FBI's assessment that it is likely that bitcoin will be used to launder money and to move or steal funds).

218. FinCEN is a bureau of the U.S. Department of Treasury. FinCEN's mission is to “safeguard the financial system from illicit use and combat money laundering and promote national security through the collection, analysis, and dissemination of financial intelligence and strategic use of financial authorities.” *What We Do*, FINCEN, http://www.fincen.gov/about_fincen/wwd (last visited Jan. 17, 2014).

219. *See Guidance (FIN-2013-G001) – Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, *supra* note 15 (containing information regarding how FinCEN's regulations apply to virtual currency).

220. *Id.*

221. FinCEN's regulations define “real currency” as “the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii] circulates and [iii] is customarily used and accepted as a medium of exchange in the country of issuance.” 31 CFR § 1010.100(m), *available at* <http://www.gpo.gov/fdsys/granule/CFR-2011-title31-vol3/CFR-2011-title31-vol3-sec1010-100>.

222. *Id.*

223. *Id.*

224. *S.E.C. v. Shavers*, No. 4:13-CV-416, 2014 WL 4652121, at 1–2.

2. Federal Reserve Working Paper

On October 7, 2014, the Federal Reserve released a working paper, *Bitcoin: Technical Background and Data Analysis*.²²⁵ The paper gives an in-depth technical analysis of bitcoin transactions and computes the amount of users and transactions taking place on the bitcoin ecosystem every day.²²⁶ Interestingly, the Federal Reserve analyzed the “velocity” of bitcoin, or the number of bitcoin addresses that are used to store bitcoin without active use.²²⁷ This is significant because it may help determine whether bitcoin is used as an investment or a currency.²²⁸ The Federal Reserve found that “less than 50 percent of all bitcoin in circulation are used in transactions,” with about half of these transactions being small in value.²²⁹ They also found that “while the number of daily users may have doubled every eight months, the transaction volume is negligible compared to the domestic volume of U.S. payment systems.”²³⁰

3. Internal Revenue Service

In March 2014, the IRS declared all virtual currency,²³¹ and thus bitcoin, “property” for federal tax purposes.²³² Controversially, taxpayers must calculate for each transaction a “gain or loss upon an exchange of virtual currency for other property,” and therefore any “payment made using virtual currency is subject to information reporting.”²³³ In other words, a taxpaying consumer must calculate the “fair market value”²³⁴ in U.S. dollars each time a bitcoin is purchased, and also

225. See generally Anton Badev & Matthew Chen, *Bitcoin: Technical Background and Data Analysis* (Finance and Economics Discussion Series, 2014-104, 2014), <http://www.federalreserve.gov/econresdata/feds/2014/files/2014104pap.pdf>.

226. See *id.* at 1 (“We present the micro-structure of the Bitcoin transaction process and highlight the use of cryptography for the purposes of transaction security and distributed maintenance of a ledger.”).

227. *Id.* at 21–22.

228. See *id.* (showing that the statistics generated by this study provide an estimate of the proportion of demand that is driven by payment motives compared with the proportion that is driven by investment motives).

229. *Id.* at 22. The Federal Reserve defines small value transactions as those that involve less than a \$100 U.S. dollar equivalent. *Id.*

230. *Id.* at 26–27.

231. The IRS describes virtual currency as “a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value. In some environments, it operates like ‘real’ currency—i.e., the coin and paper money of the United States or of any other country that is designated as legal tender, circulates, and is customarily used and accepted as a medium of exchange in the country of issuance—but it does not have legal tender status in any jurisdiction.” I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

232. *Id.* at 938.

233. *Id.* at 939.

234. *Id.* “If a virtual currency is listed on an exchange and the exchange rate is established by market supply and demand, the fair market value of the virtual currency is determined by converting the virtual currency into U.S. dollars (or into another real currency which in turn can be converted into U.S. dollars) at the exchange rate, in a reasonable manner that is consistently applied.” *Id.*

when they are spent on goods or services.²³⁵ This situation may unfold even if a person simply “used [b]itcoin to purchase something as small as a cup of coffee at . . . [a] coffee shop, he would realize a gain or loss.”²³⁶ Consequently, by classifying bitcoin as property, the IRS threatens the widespread consumer adoption of bitcoin.

The IRS classification of bitcoin as property also has an effect on the taxation of bitcoin miners and merchants.²³⁷ An individual or group that invests in bitcoin has a gain or loss depending upon whether the fair market value received for the bitcoin is higher or lower than the adjusted basis.²³⁸ Similarly, for a person/company that mines bitcoin, the fair market value at the time the bitcoin is received is includible in gross income.²³⁹ A merchant or individual who receives payment via bitcoin for goods or services must include the fair marketing value in computing gross income.²⁴⁰

4. SEC v. Shavers

In *Sec. & Exch. Comm'n v. Shavers*,²⁴¹ the U.S. District Court in Sherman, Texas held that bitcoin is a currency, but also meets the definition of an investment contract and/or note.²⁴² The court found that from February 2011 to August 2012, Shavers created and operated a Ponzi scheme called Bitcoin Savings and Trust (BTCST), defrauding investors of more than 700,000 bitcoin worth \$4.5 million U.S. dollars at the time.²⁴³ He was able to solicit investments from users in various

235. *Id.* at 938.

236. Ryan Selkis, *Bitcoin Tax Guide: E-commerce Taxation*, INVESTOPEDIA, <http://www.investopedia.com/university/definitive-bitcoin-tax-guide-dont-let-irs-snow-you/definitive-bitcoin-tax-guide-chapter-2-bitcoin-commerce-taxable-events-ecommerce-taxation.asp> (last visited Jan. 29, 2015).

237. See I.R.S. Notice 2014-21, *supra* note 231, at 939 (showing that the classification of bitcoin as property means that the sale or exchange of convertible virtual currency, or the use of convertible virtual currency to pay for goods or services in a real-world economy transaction, has tax consequences that may result in a tax liability).

238. *Id.* at 938–40. Adjusted basis is the net cost of an asset after adjusting for various tax-related items. *Adjusted Basis Definition & Example*, INVESTINGANSWERS, <http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/adjusted-basis-1383> (last visited Apr. 2, 2015).

239. I.R.S. Notice 2014-21, *supra* note 231, at 939.

240. *Id.* at 938.

241. No. 4:13-CV-416, 2014 WL 4652121 (D. Tex. Sept. 18, 2014).

242. Shavers told investors that BTCST was in the business of “selling Bitcoin to a group of local people.” *S.E.C. v. Shavers*, No. 4:13-CV-416, 2014 WL 4652121, at 1–2 (D. Tex. Sept. 18, 2014). See also Bonnie Barron, *Embattled Bitcoin Dealer Can't Deny It Is Currency*, COURTHOUSE NEWS SERVICE (Aug. 6, 2013, 3:33 PM), <http://www.courthousenews.com/2013/08/06/60044.htm> (describing the court's ruling that bitcoin is a currency or form of money).

243. Press Release, Sec. & Exch. Comm'n, Final Judgment Entered Against Trendon T. Shavers, A/K/A/ “Pirateat40” - Operator of Bitcoin Ponzi Scheme Ordered to Pay More Than \$40 Million in Disgorgement and Penalties, Securities and Exchange Commission v. Trendon T. Shavers and Bitcoin Savings and Trust, Civil Action No. Civil Action No. 4:13-CV-416 (Sept. 22, 2014), <http://www.sec.gov/litigation/litreleases/2014/lr23090.htm>; Press Release, Securities

online forums and chats.²⁴⁴ The Securities and Exchange Commission (SEC) argued that investments in BTCST were “both investment contracts and notes, and, thus, are securities.”²⁴⁵ According to the court, it is clear that bitcoin can be used as money, even if only a limited amount of businesses accept it.²⁴⁶ Additionally, bitcoin can be exchanged for “conventional currencies,” such as the U.S. dollar.²⁴⁷ Consequently, those who invested in BTCST “provided an investment of money” via bitcoin, similar to using U.S. dollars to purchase stock in a corporation; therefore, according to the court, bitcoin is a currency.²⁴⁸

5. U.S. State Regulations

a. California

California has been particularly assertive in its regulation of bitcoin.²⁴⁹

California government officials have determined that they have the power to regulate bitcoin under state law.²⁵⁰ From 2013 to 2014, California state law prohibited the use of “alternative currency that is redeemable for lawful money of the United States,” such as bitcoin.²⁵¹ However, on January 23, 2014, California’s legislature passed an amendment to the “Lawful Money: Alternative Currency” bill legalizing the use of alternative currencies within the state of California.²⁵² It is still unclear how California will regulate bitcoin.²⁵³ Notably, the bill also appears to recognize bitcoin and other alternative currencies as a freedom of speech issue, explaining that these currencies have become a “form of political protest as some communities that use such currency do so in protest of U.S. monetary policies, or large financial institutions.”²⁵⁴

and Exchange Commission, SEC Charges Texas Man With Running Bitcoin-Denominated Ponzi Scheme (July 23, 2013), <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539730583>.

244. Shavers was ordered to pay \$40 million, accounting for the appreciation of bitcoin. *See id.*

245. Barron, *supra* note 242.

246. *See id.*

247. *See id.*

248. *See id.*

249. *See* Michael B. Marois & Carter Dougherty, *California Says State Law Grants Right to Oversee Bitcoin*, BLOOMBERG (Dec. 4, 2014, 4:28 PM), <http://www.bloomberg.com/news/articles/2014-12-04/california-says-state-law-grants-right-to-oversee-bitcoin> (showing that California authorities are deciding on whether or not the wish to regulate virtual currencies).

250. *Id.*

251. Cal. Leg. Assemb. 129, 2013-14 Reg. Sess. (Cal. 2013).

252. Cal. Corp. Code, § 107 (1976) (amended 2014).

253. *See id.* (“The question of how and whether to regulate bitcoin has confounded regulators around the world since it emerged in software form in 2009 from a paper authored by an anonymous computer scientist and cryptographer.”).

254. Brian Cohen, *California Bill to Legalize Bitcoin*, BITCOIN MAGAZINE (Feb. 13, 2014, 7:04 PM), <https://bitcoinmagazine.com/articles/california-bill-legalize-bitcoin-1392336284>.

b. New York (BitLicense)

Following the legalization of bitcoin in California, on July 17, 2014, the New York State Department of Financial Services (NYSDFS) released a proposal for a regulatory framework for businesses that hold, transmit, or convert virtual currencies to everyday currencies.²⁵⁵ The framework defines “virtual currency” as “any type of digital unit that is used as a medium of exchange or a form of digitally stored value or that is incorporated into payment system technology.”²⁵⁶ This broad definition gives the NYSDFS power over the various types of digital currencies.²⁵⁷ Nevertheless, most criticism of the proposal has not come from the definition of “virtual currency.”²⁵⁸ Rather, disapproval has been targeted at the reporting requirements placed on those businesses that are forced to obtain a BitLicense from the NYSDFS in order to operate.²⁵⁹ The new reporting rules, which “require more than the current federal guidelines,” require businesses to not only keep track of the physical addresses of their customers, “but also of anybody who sends their customers money using the bitcoin network.”²⁶⁰ Bitcoin businesses must also “file frequent reports to Lawsky’s organization, the [NYSDFS]. . .to detail changes in ownership, financial forecasts, [and] even strategic business plans.”²⁶¹ The concern is that new businesses will not be able to cope with the “extremely frequent and extremely detailed” reporting requirements given their limited resources.²⁶²

B. Possibilities Under Applicable Federal Laws

This section will examine three possible classifications of bitcoin under current U.S. federal law—a currency, security, or commodity. Classifying bitcoin as either a currency, security, or a commodity will help to determine how bitcoin is regulated and which federal government agency should regulate bitcoin.

255. See Proposed Official Draft 2014, N.Y. STATE DEP’T OF FIN. SERV., <http://www.dfs.ny.gov/about/press2014/pr1407171-vc.pdf> (last visited Oct. 4, 2015) (showing that this proposal was the result of public hearings that NYSDFS conducted in January 2014).

256. *Id.* The framework: (1) defines virtual currency and businesses involved in its use; (2) establishes rules to prevent money laundering and fraud with virtual currency; (3) requires virtual currency businesses to have a cybersecurity program; (4) requires disclosure, recording, and capital requirements on virtual currency businesses; (5) elaborates on consumer protection and complaints. Alan McQuinn, “*BitLicenses*” Explained, INNOVATION FILES (Sept. 2, 2014), <http://www.innovationfiles.org/bitlicenses-explained> (outlining thoroughly the NYSDS BitLicense proposal).

257. *Id.*

258. See *id.*

259. See Robert McMillan, *New York’s New Bitcoin Rules Are Going to Kill Its Startups*, WIRED (July 17, 2014, 2:15 PM), http://www.wired.com/2014/07/ny_bitcoin (stating that the NYSDS BitLicense proposal will be extremely onerous on new businesses).

260. *Id.*

261. *Id.*

262. *Id.*

1. Currency

The U.S. Constitution gives Congress the sole power to regulate and coin “Money.”²⁶³ The Constitution states, “[n]o state shall . . . emit Bills of Credit; make any Thing but gold and silver coin a Tender in Payment of Debts . . .” and that, “[t]he Congress shall have the Power . . . To coin Money, regulate the Value thereof, and of foreign Coin.”²⁶⁴ In *Hepburn v. Griswold*,²⁶⁵ the U.S. Supreme Court held that while Congress “had the power to mint coin and issue bills or notes, it did not have the power to issue notes as legal tender,” or force a particular kind of payment upon a debtor.²⁶⁶ The Court soon overturned this decision, ruling that paper money did not conflict with the Constitution.²⁶⁷ The Court has also found that Congress has the power to regulate legal currency.²⁶⁸

It is arguable that bitcoin is legal currency and therefore illegal under the Stamp Payments Act of 1862 (Stamp Act).²⁶⁹ The Stamp Payments Act proscribes:

Whoever makes, issues, circulates, or pays out any note, check, memorandum, token, or other obligation for a less sum than \$1, intended to circulate as money or to be received or issued in lieu of lawful money of the United States, shall be fined under this title or imprisoned not more than six months, or both.²⁷⁰

Accordingly, the Stamp Act makes it difficult for bitcoin to be considered a legal currency under U.S. law.²⁷¹ Although the Stamp Act makes money illegal if it is circulated in “lieu of lawful money of the United States,” courts have taken the position that the purpose of the Stamp Act is to prevent other currencies from undermining U.S. currency.²⁷² Consequently, according to court interpretation, if a currency does not compete with U.S. currency, it may be considered legal under U.S. law.²⁷³

In *United States v. Gellman*,²⁷⁴ a Minnesota court ruled on a case involving an individual who created coins that were for “amusement only” and “had no cash value.”²⁷⁵ The court focused on whether the coins would “deceive [a] person exercising ordinary caution,” and found that there would be no way that an

263. U.S. CONST. art. I, § 8, cl. 5.

264. *Id.*

265. 75 U.S. 603, 626 (1870).

266. Derek A. Dion, *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, 171 (2013).

267. Legal Tender Cases, 79 U.S. 457, 553 (1870).

268. *Veazie Bank v. Fenno*, 75 U.S. 533, 549 (1869).

269. July 17, 1862, ch. 196, 12 Stat. 592; R.S. Sec 3583.

270. 18 U.S.C. § 336.

271. *Id.*

272. Grinberg, *supra* note 6, at 183.

273. Kevin V. Tu & Michael W. Meredith, *Rethinking Virtual Currency Regulation in the Bitcoin Age*, 90 WASH. L. REV. 271, 320 (2015).

274. 44 F. Supp. 360 (D. Minn. 1942).

275. *Id.* at 362.

ordinary person would be deceived into using it as a currency.²⁷⁶ Unlike bitcoin, the court found that the coins were not used as a “medium of exchange.”²⁷⁷ The court noted that “[i]ndividuals who circulate notes, stamps, or tokens meant to be payable only in goods are not posing a real threat to U.S. coin denominations.”²⁷⁸ Thus, if bitcoin were to pose a real threat to the U.S. government-issued currency, it would likely be an illegal currency under U.S. law.²⁷⁹

Reuben Grinberg, author of *Bitcoin: An Innovative Alternative Digital Currency*, stated that a currency will likely be considered legal under the Stamp Act if it were to: (1) serve a particular community; (2) is for repayment in goods; and (3) does not compete with U.S. coins.²⁸⁰ Currently, bitcoin is used particularly by the libertarian and technologically savvy communities.²⁸¹ Bitcoin has a market-cap²⁸² *de minimis* to the current U.S. gross domestic product (GDP)²⁸³ and U.S. currency in circulation, and therefore does not compete with U.S. coins.²⁸⁴ Additionally, bitcoin is often used for repayment of goods and services.²⁸⁵ Thus, it seems plausible that bitcoin, especially under Grinberg's analysis, is legal under the Stamp Act.

2. Security

A security is broadly defined by the Securities Act of 1933 § 2(a)(1) as “any note, stock, . . . transferable share, [or] investment contract”²⁸⁶ Accordingly, bitcoin is not a stock within the meaning of the Securities Act because it lacks qualities such as the “right to receive dividends contingent upon an apportionment

276. *Id.* at 363.

277. *Id.* at 364.

278. Dion, *supra* note 266, at 175.

279. *See* Tu & Meredith, *supra* note 273, at 319 (describing the circumstances in which bitcoin could challenge the U.S. dollar).

280. Grinberg, *supra* note 6.

281. Nathan Schneider, *Bitcoin for activists — what you need to know*, WAGING NONVIOLENCE, (Apr. 14, 2014), <http://wagingnonviolence.org/feature/bitcoin-activists-need-know/>.

282. The current marketcap of bitcoin is approximately \$3 billion. *Crypto-Currency Market Capitalizations*, COINMARKETCAP, <http://coinmarketcap.com/currencies/bitcoin> (last visited Jan. 21, 2015).

283. Current U.S. GDP is \$16.9 trillion. *GDP (current US\$)*, WORLD BANK, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD> (last visited Jan. 22, 2015). *See What is GDP and why is it so important to economists and investors?*, INVESTOPEDIA, <http://www.investopedia.com/ask/answers/199.asp> (last visited Oct. 4, 2015) (discussing GDP).

284. There is approximately \$1.39 trillion worth of U.S. currency in circulation. *How much U.S. currency is in circulation?*, FEDERAL RESERVE (last visited Jan. 13, 2016), http://www.federalreserve.gov/faqs/currency_12773.htm.

285. *See* John Rampton, *How Bitcoin Is Changing Online eCommerce*, FORBES (July 2, 2014, 4:54 PM), <http://www.forbes.com/sites/johnrampton/2014/07/02/how-bitcoin-is-changing-online-e-commerce> (“Bitcoin is gradually infiltrating the E-commerce because it’s a viable, innovative and somewhat ‘sexy’ solution.”).

286. 15 U.S.C. § 77b(1) (1971).

of profits” and “voting rights in proportion to the number of shares owned.”²⁸⁷ Nevertheless, courts have used the investment contract as a catch-all provision in analyzing and classifying securities.

In *Sec. & Exch. Comm'n v. W.J. Howey Co.*,²⁸⁸ the U.S. Supreme Court formulated a test²⁸⁹ to determine whether a financial instrument qualifies as an investment contract for the purposes of the Securities Act.²⁹⁰ To qualify as an investment contract the instrument must meet four prongs: (1) investment of money due to, (2) an expectation of profits arising from, (3) a common enterprise, (4) which depends solely on the efforts of a promoter or third party.²⁹¹ The strongest argument against the definition of bitcoin as an investment contract lies within the third prong.²⁹² Bitcoin users either purchase bitcoin from exchanges or “mine” the bitcoin themselves.²⁹³ Those who “mine” bitcoin do not depend on the efforts of others.²⁹⁴ There is also no one entity that is seeking to raise funds through investments in bitcoin, and bitcoin holders and promoters are completely independent of one another.²⁹⁵ Each bitcoin has a separate code and therefore is distinct from every other bitcoin generated or transacted, defeating the common enterprise prong.²⁹⁶ Consequently, bitcoin fails to meet the minimum threshold established by the *Howey*²⁹⁷ test, and to qualify as an investment contract under U.S. law.²⁹⁸

The U.S. Supreme Court has noted that:

[t]he fundamental purpose undergirding the Securities Acts is to eliminate serious abuses in a largely unregulated securities market . . . Congress therefore did not attempt to precisely cabin the scope of the Securities Acts. Rather, it enacted a definition of ‘security’ sufficiently broad to encompass virtually any instrument that might be sold as an investment.²⁹⁹

Due to the high number of recent serious abuses by criminals using bitcoin, a court may find the classification of bitcoin as a security valid. Accordingly, under this interpretation by the Court, the SEC may argue that they have the broad power to regulate bitcoin. However, bitcoin still lacks many of the qualities inherent in a

287. *Landreth Timber Co. v. Landreth*, 471 U.S. 681, 686 (1985) (citing *United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 851 (1975)).

288. 328 U.S. 293 (1946).

289. This test is referred to as the “*Howey* Test.” Grinberg, *supra* note 6, at 196.

290. *W. J. Howey Co.*, 328 U.S. at 301.

291. *Id.* at 298–99.

292. Grinberg, *supra* note 6, at 197.

293. *Id.* at 167.

294. *Id.*

295. *Id.* at 197.

296. *Id.* at 174.

297. 328 U.S. 293 (1946).

298. Grinberg, *supra* note 6, at 196.

299. *Reves v. Ernst & Young*, 494 U.S. 56, 60–61 (1990).

common security.³⁰⁰ Bitcoin also likely fails to meet the *Howey*³⁰¹ test, and thus would likely not be considered an investment contract.³⁰²

3. Commodity

Bitcoin may also be considered a commodity investment under U.S. law.³⁰³ Generally, a commodity is considered “in the commercial sense . . . any moveable and tangible thing ordinarily produced or used as the subject of barter or sale.”³⁰⁴ During a recent Senate Committee Hearing on Banking, Housing, and Urban Affairs, various senators and experts asserted the opinion that bitcoin could be regulated as a commodity if its volatility continued.³⁰⁵

Under the Commodity Exchange Act³⁰⁶ a commodity is “wheat, cotton, rice, corn, oats, barley, rye, . . . livestock, livestock products, . . . and all services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt in.”³⁰⁷ Bitcoin, under this broad definition, is arguably a commodity because there are contracts, which exist, for the future delivery of bitcoin.³⁰⁸ However, since these futures contracts are rare,³⁰⁹ the regulation of bitcoin as a commodity under the Commodity Exchange Act seems unlikely.

V. DISCUSSION

Despite its growing use in the international market, there is little agreement about how to legally categorize bitcoin. The following section will analyze the ramifications of categorizing bitcoin as a currency, security, commodity, as both a currency and an investment, and finally with no legal categorization at all. Furthermore, bitcoin not only lacks many of the characteristics of a currency, but also may be deemed illegal if classified as such. With respect to the classification of bitcoin as either a security or commodity, such characterization may present

300. See *Landreth Timber Co. v. Landreth*, 471 U.S. 681, 686 (holding that the definition of security under the Securities Act of 1933 is broad and includes both instruments whose names alone carry well-settled meaning, as well as instruments of more variable).

301. 328 U.S. 293 (1946).

302. See notes 285–293 and accompanying text for an explanation of why bitcoin likely fails to meet the threshold of the *Howey* test.

303. Danny Bradbury, *Bitcoin Could be Regulated as a Commodity, Senate Banking Hearing Advised*, COINDESK (Nov. 19, 2013, 10:15 PM), <http://www.coindesk.com/bitcoin-regulated-commodity-banking-hearing-advised>.

304. *State v. Frank*, 114 Ark. 47, 169 S.W. 333, 336 (1914).

305. See Bradbury, *supra* note 303 (showing that bitcoin may need to be regulated as a commodity or security, based on its market behavior).

306. 7 U.S.C. § 1.

307. *Id.*

308. Here, miners are attempting to lock in a price for future bitcoin. While these contracts are rare, they still exist. See Jeffrey I. Snyder, *Bitcoin: Currency, Commodity or None of the Above?*, NATIONAL L.R. (Oct. 16, 2014), <http://www.natlawreview.com/article/bitcoin-currency-commodity-or-none-above> (discussing whether bitcoin is a commodity under U.S. law).

309. See *id.* (explaining that it is likely that mainstream adoption of Bitcoin will be only for the purpose of immediate conversion to cash).

regulatory and tax challenges. Nevertheless, classification of bitcoin as both a currency and investment help to solve some of these challenges, as demonstrated by its success in Germany.

A. *Bitcoin as a Currency*

Although bitcoin is considered a “medium of exchange” by nations such as the Netherlands, and “effectively” a currency by the United Kingdom, it has not been explicitly declared a currency by any of the nations studied.³¹⁰ Additionally, bitcoin “prices seemingly move separately from the values of the world’s major currencies,” and thus do not follow the major currencies.³¹¹ If bitcoin were to be considered a currency, it would be regulated by the Office of the Comptroller of the Currency, U.S. Department of the Treasury.³¹²

There are a number of reasons that nations across the world have chosen not to classify bitcoin as a currency. According to FinCEN, a currency is “the coin and paper money of . . . any . . . 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.”³¹³ Bitcoin does not fit any of these criteria for a currency.³¹⁴ Bitcoin wallet addresses regularly used in transactions are relatively few, demonstrating that bitcoin may be hoarded, rather than spent.³¹⁵ Furthermore, since the number of bitcoin generated is capped at a maximum amount, the system will likely cause deflation.³¹⁶ Accordingly, “[e]ach bitcoin will be worth more and more as the total number of Bitcoin maxes out,” and thus early adopters will be heavily and unfairly rewarded.³¹⁷ Additionally, currencies are generally believed to be vehicles that are insured by either a commodity or a government’s capability to tax and protect it, and bitcoin is clearly not.³¹⁸

Although bitcoin is arguably legal under the Stamp Act, if bitcoin were to be

310. See *supra* notes 123–138 and 201–211 and accompanying text for a discussion of bitcoin’s classification in the United Kingdom and the Netherlands.

311. Bradbury, *supra* note 303.

312. *About the OCC*, OFFICE OF THE COMPTROLLER OF THE CURRENCY, <http://www.occ.gov/about/what-we-do/mission/index-about.html> (last visited Apr. 5, 2015).

313. *Guidance (FIN-2013-G001) – Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, *supra* note 15.

314. See *id.* (finding that virtual currencies, like bitcoin, are not real currency because virtual currencies do not have legal tender status in any jurisdiction).

315. Lo & Wang, *supra* note 3, at 2. However, it may also be that people generate a lot of addresses that they never use. Additionally, exchanges may be keeping their holdings in “cold” wallets to protect their users’ bitcoin. Badev & Chen, *supra* note 225.

316. Azmaan Onies, Giancarlo Daniele & Tunmise Olayinka, *Bitcoin: Decentralized, Peer-to-peer, Cryptocurrency*, STANFORD, <http://cs.stanford.edu/people/eroberts/courses/cs181/projects/2010-11/DigitalCurrencies/disadvantages/index.html> (last visited Jan. 26, 2014).

317. *Id.*

318. See *Interview with Eric Posner*, GOLDMAN SACHS GLOBAL INVESTMENT RESEARCH, Issue 21 (Mar. 11, 2014), <http://www.paymentlawadvisor.com/files/2014/01/GoldmanSachs-Bit-Coin.pdf> (arguing that bitcoin would be a poor substitute for fiat currency, and would be unable to overcome likely government opposition as well as public distrust).

considered a currency, the Stamp Act may act as a barrier to its legality and regulation.³¹⁹ While unlikely, legislation may be passed to amend or replace the Stamp Act.³²⁰ Nevertheless, if bitcoin were to be deemed illegal, the government could likely never stop it from existing due its decentralized nature.³²¹ It is unlikely that the government will be able to shut down bitcoin operations, and any interference will further move bitcoin underground. Bitcoin may pose substantial risk if it were forced to go completely underground and therefore it is necessary for the U.S. government to recognize bitcoin. Bitcoin, if declared illegal, may be used even more so to conduct illegal activity. The utility of bitcoin in illicit marketplaces has already been demonstrated through the Silk Road, and a further ban on certain activities could actually increase the demand in these illicit goods. The underground world of selling drugs, gambling, and tax evasion would likely become more popular,³²² as seen with alcohol during the Prohibition Period, where a governmental ban “meant to foster temperance instead fostered intemperance and excess.”³²³ Consequently, bitcoin regulation as a currency does not appear to be the best way to classify bitcoin.

B. Bitcoin as a Security

Although it is possible that bitcoin may be considered a security under U.S. law,³²⁴ none of the other nations discussed have classified bitcoin as such.³²⁵ The question then becomes: why have these nations declined to define bitcoin as a security? Internationally, a security generally “implies an investment method or instrument that is secured against something else.”³²⁶ A stock, for example, is secured against the equity of a company.³²⁷ Although a method of exchange can be a security,³²⁸ bitcoin would generally not be considered a security.³²⁹ Bitcoin is not

319. Grinberg, *supra* note 6, at 190.

320. *Id.*

321. See Omri Marian, *Are Cryptocurrencies Super Tax Havens?*, 112 MICH. L. REV. FIRST IMPRESSIONS 38 (2013) (discussing the ability of bitcoin to be the “ultimate” tax haven for wealthy individuals).

322. 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> (reporting that a ban on bitcoin would likely be similar to the Prohibition Period).

323. Michael Lerner, *Prohibition: Unintended Consequences*, PBC (last visited Jan. 15, 2016), <http://www.pbs.org/kenburns/prohibition/unintended-consequences>.

324. See *supra* notes 241–247 and accompanying text for an analysis of bitcoin under U.S. securities regulation.

325. See *supra* notes 115–212 and accompanying text for a discussion of international classifications of bitcoin.

326. Nelson, *supra* note 212. According to Jeff Currie, a security is any instrument that is “secured” against something else. Jeff Currie, *Bullion bests bitcoin, not Bitcoin*, GOLDMAN SACHS GLOBAL INVESTMENT RESEARCH, Issue 21 (Mar. 11, 2014), <http://www.paymentlawadvisor.com/files/2014/01/GoldmanSachs-Bit-Coin.pdf>.

327. *Id.*

328. For instance, the U.S. dollar was backed by gold, which was ended by the Nixon

secured or “backed” by another entity, and therefore is not a security under the general definition.³³⁰

The legal definition of a security under U.S. law is much more expansive and broad than that of other nations.³³¹ For instance, under German law, securities are defined as “shares, certificates representing shares, bonds . . . and . . . other securities which are comparable to shares or bonds.”³³² Australia classifies securities as “debentures, stocks or bonds issued or proposed to be issued by a government”³³³ On the other hand, under U.S. law, the “investment contract act[s] as a catch-all instrument, capable of capturing capital-seeking transactions that [fall] outside the more orthodox categories of securities, such as stocks or bonds.”³³⁴ Under this catchall phrase, it is possible that bitcoin could be considered a security under U.S. law.³³⁵ As previously demonstrated, however, bitcoin likely does not pass the threshold under the *Howey*³³⁶ test to be deemed an investment contract, and therefore is not a security.³³⁷ Bitcoin most likely fails the fourth prong of the *Howey*³³⁸ test which requires an instrument to rely on “the efforts of a promoter or a third party.”³³⁹ Because bitcoin can function in complete independence between bitcoin holders and investors, bitcoin would fail to qualify as an investment contract under the *Howey*³⁴⁰ test.³⁴¹

If bitcoin were to be deemed a security under U.S. law, it would be subject to extensive reporting requirements for tax and regulatory purposes.³⁴² The IRS currently labels bitcoin as “property” and requires extensive reporting,³⁴³ which has been met with substantial criticism.³⁴⁴ For instance, the IRS “force[s] the average

administration.

329. See Nelson, *supra* note 212 (arguing that bitcoin does not fall under regulations of federal securities law).

330. Karl Whelan, *How Is Bitcoin Different from the Dollar?*, FORBES (Nov. 11, 2013, 11:26 AM), <http://www.forbes.com/sites/karlwhelan/2013/11/19/how-is-bitcoin-different-from-the-dollar>.

331. See *Landreth Timber Co. v. Landreth*, 471 U.S. 681, 686 (1985) (discussing the very broad definition of “securities” in U.S. law).

332. Gesetz über den Wertpapierhandel [WpHG] [Securities Trading Act], Sept. 9, 1998, FEDERAL LAW GAZETTE at 1842 (Ger.), <http://www.iuscomp.org/gla/statutes/WpHG.htm#2>.

333. *Corporations Act 2001* (Cth) s 92 (Austl.).

334. Maura K. Monaghan, Note, *An Uncommon State of Confusion: The Common Enterprise Element of Investment Contract Analysis*, 63 FORDHAM L. REV. 2135, 2144 (1995).

335. *Id.*

336. 328 U.S. 293 (1946).

337. See Grinberg, *supra* note 6, at 196.

338. 328 U.S. 293 (1946).

339. *S.E.C. v. W.J. Howey Co.*, 328 U.S. 293, 299 (1946).

340. 328 U.S. 293 (1946).

341. *Id.* at 299.

342. See I.R.S. Notice 2014–21 (2014), *supra* note 231 (describing how existing general tax principles apply to transactions using virtual currency).

343. *Id.* at 2.

344. Jose Pagliery, *New IRS Rules Make Using Bitcoin a Fiasco*, CNN MONEY (Mar. 31,

Bitcoin user to keep a strict record of every purchase made all year long — then perform difficult calculations to account for the changing value of a bitcoin.³⁴⁵ This reporting requirement would be the same if bitcoin were deemed a security for taxation purposes.³⁴⁶ Thus, it appears that bitcoin, under taxation policy, should not be considered a security.

In terms of regulation, if bitcoin were classified as a security, it would be subject to SEC rules and oversight.³⁴⁷ This would require bitcoin exchanges, companies, and maybe even users, to register with the SEC and file a number of reports.³⁴⁸ The exchanges would be liable for any fraud that its users commit, which could inhibit the amount of exchanges and innovation of bitcoin.³⁴⁹ All of these requirements would greatly increase the transaction costs of bitcoin and potentially bring it in line with the costs of its competitors, greatly defeating the purpose of the technology.³⁵⁰ These regulations could also add to the legitimacy of bitcoin and protect investors or consumers from instances of fraud.³⁵¹ Nevertheless, the United States should follow the classification taken by a number of other nations and decline to classify bitcoin solely as a security.

C. Bitcoin as a Commodity

According to Jeff Currie, head of Goldman Sachs' commodities research, "[a] commodity is any item that 'accommodates' our physical wants and needs. And one of these physical wants is the need for a store of value."³⁵² Finnish regulatory officials have stated that bitcoin essentially acts like a commodity.³⁵³ However, while bitcoin may fulfill our "need for a store of value," and thus may be considered a commodity, it is not necessarily the best way for bitcoin to be taxed and regulated, due in part to the onerous requirements it would entail.³⁵⁴

If bitcoin were to be classified as a commodity, it would garner similar criticism as if it were deemed a security.³⁵⁵ For instance, Sweden considers bitcoin to be a "capital investment object," which is treated similar to a commodity in terms of taxation and regulation.³⁵⁶ This has led to criticism, due to the requirements that Swedish consumers must record the price that they paid for the

2014, 7:01 AM), <http://money.cnn.com/2014/03/31/technology/irs-bitcoin> (criticizing the IRS labeling of bitcoin).

345. *Id.*

346. *Id.*

347. Dion, *supra* note 266, at 194.

348. *Id.*

349. *Id.*

350. *Id.*

351. *Id.*

352. See Currie, *supra* note 326.

353. See *supra* notes 191–199 and accompanying text for a discussion on Finnish classification of bitcoin.

354. *Id.*

355. See *supra* notes 151–165 and accompanying text.

356. *Regulation of Bitcoin in Selected Jurisdictions: Sweden*, *supra* note 157.

bitcoin and the price at which they spent the bitcoin.³⁵⁷ If U.S. regulation followed Swedish guidance and classified bitcoin as a commodity, it may garner the same criticism. Bitcoin regulation and taxation would stifle bitcoin's use as a currency and inhibit its ability to gain popularity.³⁵⁸

In addition to difficulty with taxation, labeling bitcoin as a commodity poses problems in terms of regulation.³⁵⁹ For example, as explained above, the U.S. Commodity Futures Trading Commission (CFTC) may have difficulty in establishing jurisdiction over bitcoin.³⁶⁰ Due to the insignificant amount of futures contracts in bitcoin, it does not meet the definition of commodity under the Commodity Exchange Act and thus would likely not fall under CFTC jurisdiction.³⁶¹ If the CFTC were unable to regulate bitcoin, it would likely be unclear as to who holds jurisdiction over bitcoin as a commodity.³⁶² In other words, bitcoin regulation may be non-existent if it were to be considered a commodity. Although the bitcoin system may thrive without regulation, as demonstrated in the Netherlands,³⁶³ it may also lead to further actions of lawlessness as shown by the Silk Road network.³⁶⁴

D. Bitcoin as both a Currency and Investment/Asset

Nations that have issued guidance or regulation on bitcoin seem to generally favor characterizing bitcoin as both a currency and investment.³⁶⁵ Classifying bitcoin in this manner has a number of advantages, including the flexibility to tax and regulate bitcoin in two separate ways.³⁶⁶ The United Kingdom, for example, hopes to be able to use its classification of bitcoin as a payment service, a possible mix between a currency and investment, to become the "capital" of bitcoin around the world.³⁶⁷ Other nations, including Germany, Australia, and Canada, have more definitive classifications of bitcoin as both a currency and investment/asset.³⁶⁸

357. *Id.*

358. Primavera de Filippi, *Bitcoin: A Regulatory Nightmare to a Libertarian Dream*, INTERNET POLICY REVIEW, (Oct. 9, 2015 at 12:41 PM), <http://policyreview.info/articles/analysis/bitcoin-regulatory-nightmare-libertarian-dream>.

359. *What U.S. Regulations Apply to Bitcoin as Commodities?*, BITCOIN TITAN & TRADING TITAN (2012), <http://blog.bitcointitan.com/post/17789738826/what-u-s-regulations-apply-to-bitcoin-as>.

360. *Id.*

361. 7 U.S.C. § 1a(4).

362. *See generally What U.S. Regulations Apply to Bitcoin as Commodities?*, *supra* note 359.

363. *See supra* notes 200-211 on Netherland regulations of bitcoin.

364. *See Yermack, supra* note 7.

365. *See Regulation of Bitcoin in Selected Jurisdictions: Sweden, supra* note 157 (detailing the regulation of bitcoin in 40 jurisdictions).

366. *See supra* notes 302-338 for a discussion on bitcoin as a currency and investment.

367. Samuel Gibbs, *George Osborne Hopes to Turn Britain into Bitcoin Capital*, THE GUARDIAN (Aug. 6, 2014, 5:29 AM), <http://www.theguardian.com/technology/2014/aug/06/george-osborne-britain-bitcoin-capital>.

368. *See supra* notes 138-148 and 164-190 and accompanying discussion for information

In terms of tax, the classification of bitcoin as both a currency and investment/asset allows regulations to adapt to particular situations.³⁶⁹ Currently, the IRS taxes bitcoin as “property.”³⁷⁰ Characterizing bitcoin as property is ill-advised for several reasons.³⁷¹ The government is severely curtailing the advantages of bitcoin by making individuals and businesses record the exact amount each time bitcoin is spent.³⁷² Due to this requirement, bitcoin’s potential of being a highly efficient way to trade could be stifled.³⁷³ Consequently, the current classification of bitcoin as property by the IRS is not a viable approach.³⁷⁴

Germany has classified bitcoin as a “unit of account” or “private money.”³⁷⁵ Accordingly, Germany regulates and taxes bitcoin as both a private means of payment in barter transactions and as an investment, subject to capital gains tax.³⁷⁶ This has afforded Germany great flexibility in tailoring regulation and taxation to particular situations.³⁷⁷ For instance, if a bitcoin user simply buys a product with his or her bitcoin, they do not have to record or report the market price at which they purchased the bitcoin and the market price at which they spent the bitcoin.³⁷⁸ Instead, the customer can use bitcoin as one would use any other currency.³⁷⁹ On the other hand, if the user’s motive is to profit from the use of bitcoin, his or her profit is subject to capital gains tax.³⁸⁰

The main issue with classifying bitcoin as both a currency and investment/asset is that it is left up to the individual to subjectively determine, for tax purposes, whether he or she held bitcoin for profit. For instance, if an investor first gets into bitcoin for profit-making purposes, but then decides to spend the

on the classifications by Germany, Australia, and Canada.

369. See generally Arthur Gervais et al., *Is Bitcoin a Decentralized Currency?*, IACR.ORG, <http://eprint.iacr.org/2013/829.pdf> (last visited Jan. 29, 2015).

370. I.R.S. Notice 2014–21 (2014), *supra* note 231.

371. John McKinnon & Ryan Tracy, *IRS Says Bitcoin is Property, Not Currency*, WALL ST. J. (Mar. 25, 2014, 4:30 PM), <http://www.wsj.com/articles/SB10001424052702303949704579461502538024502>.

372. *Id.*

373. *Id.*

374. Yves Smith, *As Predicted, IRS Deems Bitcoin Property, Limiting its Usefulness in Commercial Transactions*, NAKED CAPITALISM (Mar. 26, 2014), <http://www.nakedcapitalism.com/2014/03/predicted-irs-deems-bitcoin-property-limiting-usefulness-commercial-transactions.html> (showing that the record-keeping burden of having to track bitcoin prices against the dollar at the time of acquisition rather than the time of use will be a substantial deterrent to bitcoin’s use in commerce).

375. See Mimic, *supra* note 128, at 12.

376. *Germany Plans Tax on Bitcoin After Virtual Currency Recognised as ‘Private Money’*, *supra* note 148.

377. See Tanja Aschenbeck-Florange, *Regulation of Bitcoins in Germany*, BITCOIN MAGAZINE (Feb. 5, 2014), <https://bitcoinmagazine.com/articles/regulation-bitcoins-germany-first-comprehensive-statement-bitcoins-german-federal-financial-supervisory-authority-bafin-1391637959> (detailing the implications of Germany’s classification of bitcoin as private money).

378. *Id.*

379. *Id.*

380. *Id.*

bitcoin on products or services after a dramatic increase in bitcoin's fiat price, the government has no way of objectively determining their intentions. This may pose issues for nations like Germany, which currently classify bitcoin in this way.³⁸¹

E. No Classification

By not actually defining the currency and therefore not placing regulations on bitcoin transactions, the Dutch government has allowed bitcoin to flourish in the nation.³⁸² Unlike counterparts in other nations, Dutch Banks are willing to do business with domestic companies that focus on bitcoin and other digital currencies.³⁸³ According to reports, "neither the central bank nor any other official body has required any bitcoin-related businesses to obtain a license or face any type of official scrutiny."³⁸⁴ Because of this, Amsterdam and other parts of the Netherlands have become an attraction for bitcoin-related companies.³⁸⁵ Due to the lack of definition and regulation of bitcoin in the Netherlands, the Dutch are "willing to let this technological experiment unfold."³⁸⁶ However, this lack of regulation and taxation may also aid the expansion of the bitcoin "dark web" in this European nation.³⁸⁷

VI. FINAL THOUGHTS

In recent months, the bitcoin industry has not only attracted an immense amount of venture capital investment,³⁸⁸ but has also been very influential and disruptive in the financial technology realm.³⁸⁹ In order to achieve a reasonable balance between the advantages and innovations of bitcoin and the risks it presents, the U.S. government should classify bitcoin as both a currency and investment/asset. Bitcoin needs clear and uniform guidance from federal and state governments in the United States. However, regulation should not be burdensome and stifle innovation. Government regulation is necessary in order to tax huge

381. *Germany Plans Tax on Bitcoin After Virtual Currency Recognised as 'Private Money'*, *supra* note 148.

382. *See* Wendy Zeldin, *Netherlands: Central Bank Statement on Virtual Currencies*, LAW LIBRARY OF CONGRESS, http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205404010_text (last visited Nov. 15, 2014) ("The Dutch regulators, unlike their foreign counterparts, are not cracking down on big Bitcoin startups, and so those enterprises are setting up business in Amsterdam.").

383. *Id.*

384. *Id.*

385. *Id.*

386. *Id.*

387. *See generally id.*

388. Bitcoin venture capital investment reached approximately \$440 million by Jan. 15, 2014. *Bitcoin Venture Capital*, COINDESK, <http://www.coindesk.com/bitcoin-venture-capital> (last updated Jan. 21, 2015).

389. *See* Tim Swanson, *The 10 Most Promising Startups Building Stuff With Blockchain Technology*, BUSINESS INSIDER (May 1, 2014, 5:36 PM), <http://www.businessinsider.com/10-most-promising-blockchain-companies-2014-5> (showing as an example the number of companies that are using bitcoin technology to innovate in the financial technology space).

sources of revenue, protect individuals using bitcoin, and prevent crime through the usage of bitcoin. Arguably, the classification of bitcoin should be exclusively federal because bitcoin or another virtual currency may present future threats to the U.S. dollar as the leading use of legal tender. Nevertheless, the role of the government in regulating bitcoin should be to maximize the overall advantages and minimize the risk.

Broad classification of bitcoin as both a currency and investment/asset allows the U.S. government flexibility in determining how to regulate bitcoin. The bitcoin system has a complex, decentralized structure, and the ability to flexibly classify bitcoin affords the government the power to effectively regulate and tax bitcoin. The governments of other nations recognize this complex nature, and many have determined that the best ways are to regulate and tax bitcoin as both a currency and investment/asset. Specifically, this allows them to target the exchanges that facilitate the transfer between fiat and bitcoin.³⁹⁰ Requiring these exchanges to monitor the usage and addresses associated with bitcoin accounts, allows the government to regulate and monitor the flow of bitcoin.

Another issue that may arise is whether bitcoin should be regulated under current law or whether new regulations should be specifically produced for bitcoin and virtual currencies. Classification of bitcoin as both a currency and investment/asset may present some challenges as to where bitcoin fits in the current legal framework. For instance, there is no tax and regulatory guidance on how to deal with a classification of both a currency and investment/asset.³⁹¹ An additional concern with bitcoin and virtual currencies in general is that technology usually outpaces the implementation of rules and regulations.³⁹² Even if current bitcoin legal issues are settled, it likely will not be long before new issues arise or additional, distinctive alternative currencies are created. Consequently, the classification of bitcoin broadly would allow newly minted regulations to efficiently evolve alongside future laws and technology.

One of the most promising ways bitcoin can be used is by migrant workers for international remittances.³⁹³ Banks and payment companies extract huge fees from these migrant workers sending small amounts of money home to their family and friends.³⁹⁴ Bitcoin has the capability to dramatically lower the transaction costs in

390. Coinbase has already setup a monitoring system to make sure funds transferred from their exchange were spent on legal products and services. Williams, *supra* note 103.

391. See Bob Durber, *How is Bitcoin Taxed?: A Backgrounder for Policymakers*, COIN CENTER, (Apr. 14, 2015) <https://coincenter.org/2015/04/how-is-bitcoin-taxed/#ftnt13> (discussing U.S. treatment of Bitcoin for tax purposes).

392. See generally Ivan K. Fong, *Law and New Technology: The Virtues of Muddling Through*, 19 YALE L. & POL'Y REV. 443 (2001).

393. Millions of low-income people perform hard work in foreign countries to make money to send back to their family in their home country—over \$400 billion annually, according to the World Bank. John Meech & Ricky Gu, *Bitcoin - The "New Gold for a Safe-Haven Investment?"*, UNIV. OF B.C. (2014), <http://jmeech.mining.ubc.ca/Gu%20R%20-%20Bitcoin%20Paper.pdf>.

394. For instance, Western Union, one of the most popular payment processors in the developing world charges approximately 10% of the total amount that is sent. Katie Lobosco,

international remittance.³⁹⁵ However, if bitcoin transactions were always taxed under the current “property” rules in the United States and other nations, bitcoin may be too expensive to use as the backbone of remittance payment systems.³⁹⁶ Therefore, in order to allow bitcoin to continue to revolutionize the financial payment industry, it should be classified as both a currency and investment/asset in terms of regulation and taxation.

Walmart Offers Less Costly Money Wire Service, CNN MONEY (Apr. 17, 2014, 6:17 PM), <http://money.cnn.com/2014/04/17/news/companies/walmart-money-transfers>.

395. Some companies are already doing this. See, for example, “Rebit,” which transfers remittances from across the world to the Philippines for no cost. Rebit, *Compare Us Against Other Remittance Providers*, <https://rebit.ph/compare> (last visited Jan. 25, 2015).

396. See generally McKinnon & Tracy, *supra* note 371, for a discussion about the ramification of taxing bitcoins as property.