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COMMENTS

BITCOINS: TECHNOLOGICAL INNOVATION OR EMERGING THREAT?

R. JOSEPH COOK*

I. INTRODUCTION

During the Civil War, the United States was under immense pressure to keep the Union together. The ability to fund a nation and an army during a time of war was a primary concern for the government. In 1862, a cash-strapped United States enacted two bills permitting the issue of United States legal tender notes, or “greenbacks.”¹ The greenbacks were issued out of necessity during wartime.² In 1875, Congress reinstated gold and silver coin as the medium of exchange and had the U.S. Treasury permit redemption of any greenbacks for coin.³ Only a short time later, in 1878, Congress stopped the redemption of greenbacks, and instead chose to keep the remaining greenbacks in circulation.⁴ This raised a new issue: the country was not at war and Congress was circulating paper currency.⁵ It lacked the exigencies of war as a

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1. Although these bills were later ruled unconstitutional, under *Hepburn v. Griswold* and the initial *Legal Tender Cases* (in 1871), the subsequent law permitting the issuance of notes as legal tender in the second set of *Legal Tender Cases* was held constitutional. See generally *Hepburn v. Griswold*, 75 U.S. 603 (1870); *Legal Tender Cases*, 79 U.S. 457 (1871) [hereinafter 1871 *Legal Tender Cases*]; *The Legal Tender Cases*, 110 U.S. 421, 436-37 (1884) [hereinafter 1884 *Legal Tender Cases*]; *Shollenberger v. Brinton*, 52 Pa. 9, 33 (1865); Act of Feb. 25, 1862, ch. 33, § 1, 12 Stat. 345; Act of Mar. 3, 1863, ch. 73, § 1, 12 Stat. 709.

2. *Shollenberger*, 52 Pa. at 35 (listing the power to issue paper money under Congress’ War Powers and the Necessary and Proper clause as a conceivable reason for the enactment, although disagreeing overall); U.S. CONST. art. 1 § 8, cl. 2; 5; 6.

3. *1884 Legal Tender Cases*, 110 U.S. at 436-37.

4. *Id.* at 437.

5. *Id.*

justification to issue paper currency.⁶ A new justification for currency needed to be considered.

In order to craft a new justification for paper currency, the U.S. Supreme Court used the case of *Julliard v. Greenman* (hereinafter *Legal Tender Case*, the title that the Court used for the case), in 1884, to support Congress' ability to issue paper currency and settle legal tender disputes.⁷ The Court construed Congress' power to borrow money on the government's credit as an ability to borrow from the public for government debt, and to subsequently issue paper currency as a representation of the government obligation to repay the public.⁸ These obligations, or greenbacks, could be exchanged by individuals to satisfy non-governmental debts as well.⁹ In fact, the Court suggested that the power of Congress even permitted the restriction of other currencies.¹⁰ Since the *Legal Tender Case* was decided, federal statutes and court cases have reaffirmed the power of the U.S. government to maintain an exclusive monopoly over creation and issuance of currency within its borders.¹¹

Application of this rule has been straightforward with respect to physical currencies. In the Internet age, however, technology permits currency to exist digitally, independent of any physical form.¹² While this presents new and unprecedented issues for the U.S., the existing laws and policies on currency have a similar application to these digital currencies for the same reasons as physical currency. Specifically, decentralized virtual currencies (DVCs), such as Bitcoins, are of particular concern.

Bitcoins are the pioneer of DVCs.¹³ In addition to traditional exchange, Bitcoins can be created or "mined" by solving complex computational problems.¹⁴ Once mined, the coins can be traded for a variety of goods and services through anonymous transactions.¹⁵ It has become a

6. *Id.* at 450 (providing a new justification for permitting circulation of greenbacks as legal tender).

7. *Id.*

8. 1884 Legal Tender Cases, 110 U.S. 421, 444-45 (1884).

9. *Id.*

10. *Id.* at 446.

11. See Rueben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH L.J. 159, 184 (2012); *United States v. Falvey*, 676 F.2d 871, 876 (1st Cir. 1982); James Ching, *The Federalization of Bitcoins*, 30 LAW J. NEWSLETTERS 1, 2 (2013).

12. Notably, in Bitcoins, one of the many DVCs that exist solely in digital form. Grinberg, *supra* note 11, at 162.

13. Nikolei M. Kaplanov, Comment, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case against its Regulation*, 25 LOY. CONSUMER L. REV. 111, 115 (2012).

14. *Id.* at 119-20.

15. Although the transactions are all publicly visible, there is no information that

lucrative endeavor, particularly for those investors that started early.¹⁶ Currently, many countries are conflicted about whether to embrace, regulate, or outlaw the digital currency.¹⁷ Bitcoin is a borderless currency that is held exclusively in a peer-to-peer network.¹⁸

The current status of Bitcoin and other DVCs raises many questions, particularly for the United States. Can DVCs be regulated or outlawed by the U.S.? How and when would intervention be justified if at all? What policies are advanced by outlawing these currencies? This Comment will address these questions while explaining why the U.S.'s economic and criminal law interests, in addition to relevant laws, support outlawing DVCs like Bitcoin.

The United States has taken a few steps towards the path of regulation. For example, the U.S. Treasury Department has established some guidelines to regulate the "mining" and exchange of the Bitcoin.¹⁹ A Federal District Court in Texas has also had to address the status of Bitcoin.²⁰ The district court characterized Bitcoin as a currency.²¹ The United States, however, has an established policy prohibiting competition with the national currency because competition debases the national currency's value.²² These policies are at odds with one another and will likely be challenged in the near future.

In navigating the future of DVCs, this Comment will show why DVCs should be outlawed. This conclusion is based on considerations of national interests in preventing currency competition within a country, and what the United States can do to address the rise of DVCs in the

directly links the transaction to either party involved. Grinberg, *supra* note 11, at 164-66.

16. The Bitcoin was trading around \$1.00 in early 2011 and trades for around \$130.00 as of September 11, 2013. Christopher McKinley, *Demand for Bitcoin Soars but Fluctuations leave it Vulnerable*, IRISH INDEPENDENT, May 9, 2013, Business at 13; Robert McGarvey, *Bitcoin: Getting Down to Virtual Currency Basics*, CREDIT UNION TIMES (Sept. 11, 2013), <http://www.cutimes.com/2013/09/11/bitcoin-getting-down-to-virtual-currency-basics?t=technology&page=2>.

17. Bitcoin has been openly embraced in Germany; Switzerland is taking a more cautious regulatory approach; and the United States has reopened investigation into the concerns regarding the national security threats related to Bitcoin. Karen Epper Hoffman, *How Bitcoin is Blossoming in Germany*, PAYMENTS SOURCE (Sept. 12, 2013), <http://www.paymentssource.com/news/how-bitcoin-is-blossoming-in-germany-3015408-1.html>.

18. Kaplanov, *supra* note 13, at 115.

19. DEPT OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, APPLICATION OF FINCEN'S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES 5 (Mar. 18, 2013), available at http://fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf.

20. SEC v. Shavers, No. 4:13-CV-416, 2013 U.S. Dist. LEXIS 110018 (E.D. Tex. Aug. 6, 2013).

21. *Id.* at *5.

22. Grinberg, *supra* note 11, at 185; Ching, *supra* note 11.

Internet age. The Background provides a brief overview of what DVCs are and how they work. It also discusses the relevant legal policies and authority that have been traditionally applied to currency competition in the United States. The Analysis is broken into two parts. First, the Analysis will provide current economic and national security policies that justify the U.S.'s monopoly on currency, and why a monopoly on currency should be maintained. Second, the Analysis will address how an outright ban on Bitcoin and other DVCs would work and why this method is preferred over regulating and mitigating decentralized digital currency.

II. BACKGROUND

A. BITCOIN BACKGROUND

Although other types of DVCs exist, Bitcoin was the pioneer for decentralized currency, and many other DVCs are modeled on the same or similar principles.²³ The Bitcoin's development was based on a 2009 self-published paper written by Satoshi Nakamoto.²⁴ Bitcoins are digital computer files that rely only on supply and demand to determine their value.²⁵ Because Bitcoins are digital, they may be sent and received instantly, like an email, with little cost, making them a cheap and appealing alternative to conventional currency transfers.²⁶

There is no central authority that governs or regulates Bitcoin, so certain measures are taken to ensure security in transactions.²⁷ First, any user wanting to transact in Bitcoins will need a digital wallet, or an application that he either downloads to his computer or accesses through a service on the Internet.²⁸ This digital wallet provides the user with a unique two-part address.²⁹ One part of the address contains

23. Kaplanov, *supra* note 13, at 115; Ian Steadman, *Wary of Bitcoin? A Guide to Some Other Cryptocurrencies*, WIRED (May 7, 2013), <http://www.wired.co.uk/news/archive/2013-05/7/alternative-cryptocurrencies-guide>.

24. Kaplanov, *supra* note 13, at 115. Most believe that the author's name is a pseudonym and that it may be a man, woman, or group of individuals in reality; the actual identity of the creator is unknown and has never been confirmed. *Id.* at 115 n.21; see Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN.ORG, www.bitcoin.org/bitcoin.pdf (last visited Apr. 16, 2014) (explaining how Bitcoin works).

25. Kaplanov, *supra* note 13, at 115-16.

26. *Id.* at 116 (discussing that transactions are as fast as sending an email); Grinberg, *supra* note 11, at 170.

27. Grinberg, *supra* note 11, at 160.

28. Derek A. Dion, Note, *I'll Gladly Trade you Two Bits on Tuesday for a Byte Today: Bitcoin, Regulating Fraud in the E-Economy of Hacker-Cash*, 2013 U. ILL. J.L. TECH. & POL'Y 165, 167 (2013).

29. *Id.* at 167-68.

information about the user and is kept private, while the other part of the address is publicly viewable and contains information pertaining to when the transaction occurred.³⁰ This means transactions keep the parties anonymous, but publicly show that a transaction has occurred.³¹

Once a user has a digital wallet, additional security measures apply to the transactions that he or she participates in. Every exchange of Bitcoins records the time and the public wallet addresses of the parties involved.³² As a result, each Bitcoin carries with it a history of all of its past transactions, the time the transaction took place, and the public addresses of the parties involved.³³ This prevents the Bitcoins from being spent twice, as two transactions cannot occur at the same time.³⁴ It also preserves a record of all past transactions without ever revealing a particular party involved.³⁵

There are two ways to get Bitcoins. One way to acquire Bitcoins is to “mine” them.³⁶ The term “mining” means that a user will run a computer program that attempts to sequence a given encryption.³⁷ In other words, the computer is solving complex math problems.³⁸ If successful, the user is awarded a number of Bitcoins.³⁹ In order to control the production of Bitcoins, the problems become more complex over time and less Bitcoins are awarded for each successful solution.⁴⁰ Solving these problems and earning Bitcoins is an automated process that will continue until there are a total of 21 million Bitcoins in circulation.⁴¹ Despite the limited number of Bitcoins, they can be broken into smaller denominations, called “Satoshis,” in honor of their creator.⁴² This permits a single Bitcoin to be split into 100 million smaller units.⁴³

30. There are actually two addresses: one public address that records the transaction and one private address that authorizes transactions. *Id.*

31. *Id.* at 168.

32. *Id.*

33. *Id.*

34. *Id.*

35. *Virtual Currency Schemes*, EUROPEAN CENTRAL BANK, 1, 23 (Oct. 2012), <http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>.

36. Kaplanov, *supra* note 13, at 119.

37. *Id.* at 119-20.

38. *Id.* at 120.

39. *Id.* at 121.

40. Kirsten Morel, *Who Needs Paper Anyway?*, BUSINESSLIFE.CO (Aug. 9, 2013), <http://www.businesslife.co/Features.aspx?id=who-needs-paper-anyway>.

41. *Id.*

42. Susan Hely, *Pay Your Way with Bitcoins*, EBSCOHOST (Aug. 2013), <http://connection.ebscohost.com/c/articles/89450156/pay-your-way-bitcoins>.

43. *Id.*

The second way to obtain Bitcoins is through exchange for a different currency with other Bitcoin users.⁴⁴ Again, the value of Bitcoin is based on supply and demand, and it has historically fluctuated wildly.⁴⁵ Common markets to exchange Bitcoins include Bitstamp and BTC.⁴⁶ In addition to exchanging, Bitcoins may be bought or sold for a variety of goods and services.⁴⁷ This puts pressure on governments because Bitcoins can currently be used to buy or sell goods to the exclusion of a government currency (and government currency regulations), with anonymity and ambiguous tax implications.⁴⁸

B. UNITED STATES' MONOPOLY ON CURRENCY

Equally unique to the debate over virtual currency is the United States' constitutional right to regulate currency.⁴⁹ The U.S. dollar is known as a "fiat" currency.⁵⁰ The U.S. dollar is not backed by any commodity (like gold or silver), but backed only by an individual's trust in the U.S. government.⁵¹ The evolution of currency in the U.S. from a currency valued on gold to a fiat currency system has been instrumental in establishing laws that exist today for regulating currency. A historical account of past acts and cases shows that the policy applied to the same counterfeiting laws and constitutional provisions can change over time.

When the U.S. government initially adopted the Constitution, it permitted Congress "to coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures."⁵² The Constitution further states that Congress also has the power to punish

44. Kaplanov, *supra* note 13, at 121.

45. McKinley, *supra* note 16, at 13 (noting that the value has jumped from \$1.00 to \$30.00 and back to \$2.00 in a matter of six months).

46. BITSTAMP, <https://www.bitstamp.net> (last visited May 6, 2014); BTC-e, <https://btc-e.com> (last visited May 6, 2014).

47. An example of a website listing companies that accept Bitcoins directly. Potential purchases range from guitar lessons (services), purchasing gift cards, and directly purchasing cell phones to hotel and apartment rentals. *Places that Accept Bitcoins Directly*, SPEND BITCOINS: A CRYPTOSPEND SERVICE,

https://www.spendbitcoins.com/places/?place_type=service (last visited Apr. 16, 2014). Bitcoin.travel is another website that shows where local, physical shops will accept Bitcoins. Acceptors range from bars to legal services. BITCOIN.TRAVEL, <http://bitcoin.travel/> (last visited Apr. 16, 2014).

48. David Stewart & Stephanie D. Soong Johnston, *Digital Currency: A New Worry for Tax Administrators?*, TAX ANALYSTS (Nov. 7, 2012), <http://www.taxanalysts.com/www/features.nsf/Articles/C1A7ED502DD2B84685257AAF0056A2A2?OpenDocument>.

49. U.S. CONST. art. I, § 8, cl. 5; 1884 Legal Tender Cases, 110 U.S. 421, 451 (1884).

50. *Virtual Currency Schemes*, *supra* note 35, at 9-10.

51. *Id.*

52. U.S. CONST. art. I, § 8, cl. 5.

anyone that counterfeits “current U.S. coin.”⁵³ These clauses were understood as granting power to the federal government to coin money to the exclusion of the states and, in certain cases, private parties.⁵⁴ The federal government initially enacted the Mint Act pursuant to this clause.⁵⁵ The Mint Act provided the specific metals and weights of those metals required for coins of certain values.⁵⁶ For example, one coin, called an “Eagle” was valued at “ten dollars . . . and to contain two hundred and forty-seven grains and four eighths of a grain of pure, or two hundred and seventy grains of standard gold.”⁵⁷ Similar values were determined under the Mint Act, and money was coined as a commodity currency that literally contained standard amounts of copper, silver, and gold.⁵⁸ It was not until the Civil War, when these materials were in short supply that any major concerns about currency arose.⁵⁹

In 1862, during the Civil War, the government enacted the Stamp Payments Act.⁶⁰ This Act was a response to rising inflation and a tendency by citizens to hoard coins because the value of the metal in the coins was higher than the face value of the currency.⁶¹ Private businesses began to issue other currency on account of a shortage of U.S. federal currency.⁶² As a result, the Stamp Act prevented the issue of private currency less than one dollar in value.⁶³ It prohibited only coins less than a dollar because the metal only outweighed the value of small denomination coins.⁶⁴ Eliminating competition between privately issued currency and the national currency served as the main purpose of the Act.⁶⁵

At the time of the Stamp Act, the U.S. government also began to issue notes, instead of actual coins, as currency.⁶⁶ Whether these notes

53. U.S. CONST. art. I, § 8, cl. 6.

54. Grinberg, *supra* note 11, at 181; 18 U.S.C. § 336 (2013); 18 U.S.C. § 486 (2013) (describing circumstances that limit the ability of private individuals to mint currency).

55. Act of Apr. 2 1792, ch. 16, § 9, 1 Stat. 248.

56. *Id.*

57. *Id.*

58. *Id.*

59. 1884 Legal Tender Cases, 110 U.S. 421, 455 (1884).

60. Grinberg, *supra* note 11, at 183.

61. *Id.* at 185.

62. *Id.*

63. *Id.*; *see also* 18 U.S.C. § 336 (2013).

64. Grinberg, *supra* note 11, at 181.

65. *See id.* at 183 (explaining that the main thrust of the anti-counterfeiting measure is considered to be preventing competition with the national currency, and not the counterfeiting itself); *United States v. Falvey*, 676 F.2d 871, 876 (1st Cir. 1982); *see also* 18 U.S.C. § 486 (2013) (prohibiting the making of coins to be used as current money in place of the U.S. dollars).

66. *Hepburn v. Griswold*, 75 U.S. 603, 606 (1870) (discussing the Stamp Act, start-

were valid legal tender became the issue of several court cases known as the *Legal Tender Cases*.⁶⁷ The initial case of *Hepburn v. Griswold* held that the government notes were not legal tender.⁶⁸ The subsequent cases, however, permitted the issue of the notes and deemed them a legal alternative to coin.⁶⁹ The first round of *Legal Tender Cases* involved the cases of *Knox v. Lee* and *Parker v. Davis* (hereinafter *Legal Tender Cases*).⁷⁰ In these cases, the court relied on the exigencies of war to justify a move by Congress to issue greenbacks in lieu of coin.⁷¹ It permitted Congress to enforce the Legal Tender Act, permitting the issuance of greenbacks, while recovering from the war effort.⁷² Several years later, the Supreme Court heard the second *Legal Tender Case*⁷³ and affirmed the permanent circulation of greenbacks as a valid exercise of government power.⁷⁴ Since the time of these cases, which permit the U.S. government to operate a fiat currency, several cases have arisen that interpret government issue of legal tender and counterfeiting of that tender. As case law has developed, courts have routinely prohibited privately issued currency that competes with the national currency.⁷⁵

Shortly after *Hepburn v. Griswold* and the *Legal Tender Cases*, the Supreme Court heard *United States v. Van Auken*.⁷⁶ In this case, Van Auken owned a furnace store and he was indicted for giving out notes to individuals that were worth fifty cents in merchandise at his store.⁷⁷ This practice was in violation of the “less than one dollar” prohibition on private currency (much like a modern day coupon).⁷⁸ More importantly, the Supreme Court used this opportunity to elaborate on when and how it intended to enforce the prohibition on private currencies. The Supreme Court defined “currency” as any note or obligation in place of a dollar, for a sum less than a dollar.⁷⁹ Any medium of exchange

ing on February 25, 1862, permitted the issue of notes as legal tender in place of coins).

67. See generally 1871 Legal Tender Cases, 79 U.S. 457 (1871); 1884 Legal Tender Cases, 110 U.S. 421 (1884).

68. *Hepburn*, 75 U.S. at 625.

69. 1871 *Legal Tender Cases*, 79 U.S. at 554; 1884 *Legal Tender Case*, 110 U.S. at 450.

70. 1871 *Legal Tender Cases*, 79 U.S. at 457.

71. *Id.* at 529, 553.

72. *Id.* at 553.

73. 1884 *Legal Tender Case*, 110 U.S. 421, 421 (1884).

74. *Id.* at 450.

75. *United States v. Van Auken*, 96 U.S. 366, 368 (1878); *United States v. Gellman*, 44 F. Supp. 360, 364 (D. Minn. 1942); *United States v. Falvey*, 676 F.2d 871, 876 (1st Cir. 1982).

76. *Van Auken*, 96 U.S. at 366.

77. *Id.* at 367.

78. *Id.* at 368; 18 U.S.C. § 336 (2013).

79. *Van Auken*, 96 U.S. at 368.

measured in any other metric (pounds, gallons, etc.) was not deemed money.⁸⁰ The Supreme Court also provided for two elements for enforcing the Stamp Act: 1) the token or note is for a sum less than one dollar; and 2) “it is intended to circulate as money or in lieu of the money of the United States.”⁸¹ The Supreme Court held that Van Auken had not issued a private currency and dismissed his case.⁸² The Supreme Court’s analysis suggests an early policy against competition with the national currency.⁸³

In a more recent case, *United States v. Falvey*, the First Circuit reaffirmed the prohibition against competing with U.S. currency.⁸⁴ In this case, the government charged the defendants with conspiracy to counterfeit South African Krugerrands, which is a metal coin type of currency.⁸⁵ Ultimately, the court dismissed the case because the Krugerrand was not current money in the United States, but the court discussed the policy behind the United States’ monopoly on currency in its opinion.⁸⁶

There have been numerous other cases based on counterfeiting.⁸⁷ These cases tend to focus on attempting to mimic the U.S. currency more than competing with it.⁸⁸ The only other recent example of currency competition comes from the case of the Liberty Dollar.⁸⁹ A man named Bernard von NotHaus set out to mint his own currency within the United States.⁹⁰ He established the National Organization for the Repeal of the Federal Reserve and Internal Revenue Code (NORFED).⁹¹ The aim of this organization was to place a commodity currency into circulation that was backed by silver.⁹² The currency itself carried many semblances to U.S. currency, so standard counterfeiting was easily charged against him.⁹³ In addition to raising competition with U.S. currency as an additional charge though, the state also suggested in part

80. *Id.*

81. *United States v. Van Auken*, 96 U.S. 366, 368 (1878).

82. *Id.* at 369.

83. Grinberg, *supra* note 11, at 184.

84. *United States v. Falvey*, 676 F.2d 871, 876 (1st Cir. 1982).

85. *Id.* at 872.

86. *Id.* at 876-77.

87. *See United States v. Smith*, No. 08-20201 Ma/P, 2010 U.S. Dist. LEXIS 112499 (W.D. Tenn. Aug. 16, 2010); *Moore v. State*, 18 A.3d 981, 985 (Md. Ct. Spec. App. 2011); *United States v. Colbert*, 261 Fed. App’x 466, 467 (4th Cir. 2008).

88. *Smith*, 2010 U.S. Dist. LEXIS 112499, at *4; *Moore*, 18 A.3d at 985; *Colbert*, 261 Fed. App’x at 467.

89. Ching, *supra* note 11, at 3.

90. *Id.* at 1.

91. *Id.* at 3.

92. *Id.*

93. Notably, the currency said, “Trust in God,” “USA,” and “dollar” along with the dollar sign (\$). *Id.* at 3.

the economic effect of circulating non-U.S. currency. Doing so stimulates doubt in the value of the U.S. dollar.⁹⁴ This suggests the concern that competing currencies debase or devalue the U.S. currency.⁹⁵

To date, there are no cases dealing directly with virtual currency, much less DVCs, and competition with U.S. currency. The case *SEC v. Shavers* has recently characterized Bitcoins as a currency.⁹⁶ *Shavers* involved the defrauding of investors who had traded exclusively in Bitcoins.⁹⁷ The court held that this was similar to fraud involving U.S. dollars because Bitcoins can be used the same way as U.S. dollars.⁹⁸ Similarly, FinCEN, the criminal enforcement branch of the U.S. Department of Treasury, has also made efforts to regulate DVCs, but more importantly, it characterizes DVCs as a *currency*.⁹⁹ This push has been driven in part by request to the FinCEN and the government to do something to reign in the tax implications for Bitcoins.¹⁰⁰ As a result of these two trends, the analysis of Bitcoins and other DVCs will be through the lens of a currency.

III. ANALYSIS

Given the prior established authority for the United States to prevent currency competition raises several issues that will be discussed. The most reasonable course of action for the United States is a ban on DVCs. However, several commentators have expressed opinions to the contrary, hoping to merely regulate Bitcoin and other DVCs in conjunction with U.S. currency.¹⁰¹ An investigation into the United States economic, banking, and drug policies enabled by the United States' control of currency, however, will reveal that these policies are enforceable only without the competition of other currencies.¹⁰² In considering the policy

94. *Id.*

95. *Id.*

96. *SEC v. Shavers*, No. 4:13-CV-416, 2013 U.S. Dist. LEXIS 110018, at *5 (E.D. Tex. Aug. 6, 2013).

97. *Id.* at *3-4.

98. *Id.* at *4.

99. DEPT OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, *supra* note 19.

100. Omri Marian, *Are Cryptocurrencies Super Tax Havens?*, 112 MICH. L. REV. FIRST IMPRESSIONS 38, 46 n.41 (2013) (noting that FinCEN has enacted regulations of DVCs, in part, to curb tax evasion).

101. Dion, *supra* note 28, at 197; Kaplanov, *supra* note 13, at 173.

102. THE FEDERAL RESERVE, THE FEDERAL RESERVE SYSTEM PURPOSES & FUNCTIONS 17-18 (9th ed. 2005) (discussing that the ability to influence inflation and interest rates is based on demand for the dollar, which is reduced by competition); Marian, *supra* note 100, at 41 (using Bitcoins undermines the abilities of governments to counter laundering and tax evasion in official currency); Eileen Ormsby, *The Road's Closed for These Drugs*, CANBERRA TIMES (Oct. 8, 2013), <http://www.canberratimes.com.au/technology/technology-news/the-roads-closed-for-these->

against competition with the currency, there are a few recurring considerations addressed throughout this Comment: (1) At what point does a currency compete with the U.S. dollar? (2) Does Bitcoin rise to this level of competition? (3) What are the United States' modern incentives in continuing to prohibit competition with U.S. currency?¹⁰³

A. RISE IN BITCOIN POPULARITY AND COMPETITION WITH U.S. DOLLARS

The first step in considering the effects of Bitcoin is to determine if it is popular enough and widespread enough to compete with the U.S. currency. As previously mentioned, the United States District Court and the Financial Crimes division of the U.S. Treasury have classified Bitcoin and DVCs as currency.¹⁰⁴ Other articles debate whether Bitcoin is truly a currency, or whether it can be considered a commodity, a security, or other financial instrument.¹⁰⁵ Given the U.S. classification, it is likely that Bitcoin will continue to be treated as a currency, at least by government standards, and will be addressed as such in this Comment. The main question, then, is when does a currency compete with the U.S. dollar?

A review of past cases and statutes sheds light on specifically what it takes to compete with the U.S. currency and when such competition occurs. Together, the "greenback" statute, the two elements set forth in *Van Auken*, and 18 U.S.C. § 486 all restrict the minting of private currency in any form for less than a dollar, and the minting of coins of any value that compete with U.S. dollars.¹⁰⁶ Bitcoin and other DVCs would fall under 18 U.S.C. § 486 because transactions for under one dollar can occur by dividing the currency into smaller portions.¹⁰⁷ The United States is likely to apply a broader interpretation of these laws because coins and denominations less than one dollar of currency are not as common as they were when these laws were enacted.¹⁰⁸

drugs-20131007-2v464.html (noting alternatively, anonymous currency provided a secure means to procure drugs).

103. The concern with competition is derived generally from the case *United States v. Van Auken*, while the major incentives to monopolize currency come from the Federal Reserve's Purposes and Functions handbook. See generally *United States v. Van Auken*, 96 U.S. 366, 367 (1878); THE FEDERAL RESERVE, *supra* note 102.

104. DEP'T OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, *supra* note 19; SEC v. Shavers, No. 4:13-CV-416, 2013 U.S. Dist. LEXIS 110018, at *4 (E.D. Tex. Aug. 6, 2013).

105. Grinberg, *supra* note 11, at 194-204 (considering the different applicable legal frameworks for DVCs, like securities, commodities, currencies, etc.).

106. See *id.* at 183; 18 U.S.C. § 336 (2013); *Van Auken*, 96 U.S. at 368; 18 U.S.C. § 486 (2013).

107. Grinberg, *supra* note 11, at 186; Hely, *supra* note 42 (showing that even at a peak value of \$266 per Bitcoin, a single coin can be broken into fractions of a penny).

108. *Van Auken*, 96 U.S. at 367 (the predecessor to 18 U.S.C. § 336 was enacted in

Furthermore, the laws may be amended or broadly interpreted to encompass the modern emergence of digital currencies today.¹⁰⁹ In either case, Bitcoin and other DVCs fall within the scope of these statutes.

The particular threshold for when a currency is widespread enough to compete with the U.S. dollar can be loosely drawn based on cases of local, private currencies, digital videogame currency, and the Liberty Dollar. First, there are numerous local currencies that are circulated around the United States on small scales.¹¹⁰ For example, there are the Cascadia Hours of Portland, Oregon; Bay Bucks of Traverse City, Michigan; and Potomacs of Washington, D.C.¹¹¹ The widest circulation of any of these currencies is the Potomacs, which are circulated from Washington D.C. to the greater suburbs of Virginia and Maryland.¹¹² The purpose of the Potomacs is to promote buying locally amidst post-2008 recession woes; thus, these currencies have not come under any judicial scrutiny.¹¹³ None of these local currencies are designed to compete outright with the U.S. currency, they do not use values less than a dollar, and many do not use dollars at all.¹¹⁴ Consequently, these currencies represent the lower bound for permissible private currency.

A similar, but more contentious circumstance arises in virtual reality and digital currencies. The most relevant considerations have been made in the context of tax.¹¹⁵ In the videogame, *World of Warcraft*, for example, players can earn virtual, in-game gold by completing certain objectives.¹¹⁶ By itself, this “gold” is worthless for tax purposes.¹¹⁷ However, the issue of taxability, exchange rates, and economics became much more relevant, when it was realized that these videogame assets could be sold for real U.S. dollars on third party exchanges like eBay.¹¹⁸

1863); 18 U.S.C. § 486 (2013) (enacted in 1948).

109. Grinberg, *supra* note 11, at 187.

110. Blake Ellis, *Local Currencies: “In the U.S. We Don’t Trust,”* CNN MONEY (Jan. 27, 2012, 11:13 AM), http://money.cnn.com/2012/01/17/pf/local_currency/.

111. Blake Ellis, *Funny Money? 11 Local Currencies*, CNN MONEY (Jan. 27, 2012, 3:05 PM), <http://www.money.cnn.com/galleries/2012/pf/1201/gallery.community-currencies/5.html> (discussing eleven different local currencies including Cascadia Hours, Potomacs, and Bay Bucks).

112. *Id.*

113. Ellis, *supra* note 110.

114. *United States v. Van Auken*, 96 U.S. 366, 368 (1878) (noting that units other than dollars are acceptable); Ellis, *supra* note 111 (the listed currencies are denoted in something other than dollars or in denominations over \$1, including the Life Dollar, which is listed as a “half dollar,” because it exchanges for \$10-12); 18 U.S.C. § 336 (2013).

115. Julia Layton & Dave Roos, *Can the IRS tax Virtual Money?*, HOW STUFF WORKS, <http://money.howstuffworks.com/personal-finance/personal-income-taxes/virtual-tax.htm> (last visited May 5, 2014).

116. *Id.*

117. *Id.*

118. *Id.*; *see also* EBAY, <http://www.ebay.com> (last visited Feb. 17, 2014) (an Ameri-

These transactions can be taxable income once they are converted into real money.¹¹⁹

More importantly, the different ways Bitcoins and videogames are characterized by the IRS evinces the intent behind them. Videogame transactions are characterized as “closed-flow” transactions because they are restricted to an isolated, virtual arena.¹²⁰ “Hybrid-flow” systems, on the other hand, would be closed-flow except that items and currency procured in the game can be bought and sold by third parties.¹²¹ This is the case that arises with some videogame currencies despite licensing conditions to the contrary.¹²² The tax approach to these virtual currencies suggests that a key distinction for these currencies is the intent behind their existence. They are not intended to compete with U.S. dollars because they are either completely localized (closed-flow), or only exchangeable for U.S. dollars on a prohibited basis (hybrid-flow).¹²³

Bitcoin and DVCs, on the other hand, are characterized as “open-flow” currencies—they can be bought, sold, or exchanged for any purpose without restriction.¹²⁴ Focusing less on the tax implication, and more on the intent behind them, this characterization places Bitcoin in a realm distinct from virtual videogame currencies.¹²⁵ This characterization defines Bitcoin and other DVCs as being intended for universal exchange, and lends support to their intent to compete with the U.S. dollar, at least on the Internet.¹²⁶

Opposite legally sanctioned and localized currencies, there are instances where currencies have been held to compete against U.S. currency. The only recent application of this law has been in the case of the

can multinational consumer-to-consumer corporation).

119. Layton & Roos, *supra* note 115; U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-516, VIRTUAL ECONOMIES AND CURRENCIES: ADDITIONAL IRS GUIDANCE COULD REDUCE TAX COMPLIANCE RISKS 4 (2013) [hereinafter VIRTUAL ECONOMIES AND CURRENCIES].

120. VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119.

121. Layton & Roos, *supra* note 115; VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119.

122. VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119.

123. *Id.*

124. Layton & Roos, *supra* note 115 (indicating that Second Life, a videogame, is characterized as open-flow and exchanges to U.S. dollars must still occur via third-party exchanges; whereas, Bitcoin is called the “ultimate open-flow system” as it is not constrained in any way by a virtual world, but designed specifically to make universal purchases); VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119, at 5 (discussing the third party exchange established for Second Life currency).

125. Grinberg, *supra* note 11, at 186 (noting that virtual world currency is unlike Bitcoins).

126. *Id.* at 187 (noting that face-to-face Bitcoin transactions compete with U.S. currency and online Bitcoin transactions compete with credit cards and checks, which are also based on U.S. currency).

Liberty Dollar, and even then, the currency was equally chargeable for counterfeiting U.S. dollars and circulating metal coins worth more than one dollar.¹²⁷ Despite the multiple charges, however, the case is still an applied use of the anti-competition statute.¹²⁸ Looking at the numbers, Von NotHaus circulated roughly \$20 million worth of Liberty Dollars as currency.¹²⁹ Furthermore, his intention was to compete with U.S. currency outright by circulating Liberty Dollars as if they were U.S. dollars.¹³⁰ As a result, Von NotHaus was charged and convicted, in part, under the anti-competing statute, 18 U.S.C. § 486.¹³¹

Taking all of these considerations into account, the Bitcoin will, if it has not already, compete with the U.S. currency, in violation of the laws against competition. As previously mentioned, the Bitcoin has already been characterized as an open-flow currency, allowing nearly any range of transactions to take place.¹³² Bitcoins may be used for an extremely wide range of purchases and are only constrained by those willing to accept them, which is on the rise.¹³³ One major use is simply trading Bitcoins on different exchanges, an investment that can literally enrich or bankrupt an individual overnight.¹³⁴ Other uses include buying and selling a variety of goods and services.¹³⁵

Although some argue that these transactions are limited to a small Internet community,¹³⁶ the prevalence of online transactions is rising.¹³⁷ As of January 25, 2014, the total value of all Bitcoins (in U.S. dollars) is

127. Von NotHaus was charged for counterfeiting because his currency bore similarities to U.S. currency, in addition to being charged with the 18 U.S.C. § 486 statute against currency competition. Ching, *supra* note 11 (discussing the novelty/rarity of charging someone under the 18 U.S.C. § 486 statute); Press Release, U.S. Mint, Liberty Dollars not Legal Tender, U.S. Mint Warns Consumers (Sept. 14, 2006), *available at* http://www.usmint.gov/pressroom/?action=press_release&id=710 (noting that the coins were circulated with intent to compete with U.S. dollars).

128. 18 U.S.C. § 486 (2012).

129. Grinberg, *supra* note 11, at 194 n.162.

130. Ching, *supra* note 11.

131. Grinberg, *supra* note 11, at 194.

132. VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119, at 5.

133. Hely, *supra* note 42, at 72; Juan Forrer, *Making Bitcoins Legit*, 30 E-COM. L. & STRATEGY, Sept. 1, 2013, at 3; *Number of Transactions per Day*, BLOCKCHAIN, https://blockchain.info/charts/ntransactions?timespan=all&showDataPoints=false&daysAverageString=1&show_header=true&scale=0&address= (last visited Apr. 17, 2014) (a graph of total daily Bitcoin transactions showing a rise since the currency began).

134. Forrer, *supra* note 133 (noting that the value of Bitcoin has fluctuated from \$266 down to \$105 in a single day).

135. *See Places that Accept Bitcoin*, *supra* note 47; *see also* BITCOIN.TRAVEL, *supra* note 47.

136. Grinberg, *supra* note 11, at 187.

137. Marc E. Babej, *Forrester: U.S. E-Commerce to Rise 13% This Year*, FORBES (Mar. 13, 2013, 12:36 PM), www.forbes.com/sites/marcbabej/2013/03/13/forrester-u-s-e-commerce-to-rise-13-this-year/print/.

around \$10 billion,¹³⁸ which far exceeds the value of around \$1 million in the largest local currencies and \$135 million total for virtual, video-game currencies.¹³⁹ Furthermore, this value exceeds the \$20 million that was deemed sufficient to compete with U.S. currency in the case of the Liberty Dollar.¹⁴⁰

Even if that is not enough to render Bitcoin a competing currency, Bitcoins are being produced in physical manifestations.¹⁴¹ The coins themselves are brass with gold electroplating that includes the unique identifying private address on them.¹⁴² One of the most promoted aspects of Bitcoin is the convenience and speed of transactions, which cannot be improved upon with a physical coin for an exclusively digital currency.¹⁴³ The only reasonable conclusion to be drawn is that the coins are intended to be used for transactions beyond the digital arena. Not only is this direct competition with U.S. currency,¹⁴⁴ it is creating Bitcoin in metallic coin form, removing any need for expansive statutory interpretation.¹⁴⁵ Bitcoin ATMs are also on the market for customers to purchase Bitcoins on the go.¹⁴⁶

Perhaps more practical than the physical manifestation of Bitcoin or ATMs is the ability to pay using smartphones.¹⁴⁷ This too

138. *Total Bitcoins in Circulation*, BLOCKCHAIN, <https://blockchain.info/charts/total-bitcoins> (last visited Jan. 25, 2014) (indicating that there are over 12 million total Bitcoins in circulation); *Simple Bitcoin Converter*, PREEV, <http://www.preev.com> (last visited Jan. 25, 2014) (noting that if multiplied by the current exchange rate of \$856.90 (as of Jan. 25, 2014) equals over \$10 billion in circulating currency).

139. Layton & Roos, *supra* note 115 (noting that the entire videogame economy totals around \$135 million); Ellis, *supra* note 110 (noting that Life Dollars, a local currency, were used for about \$1 million in transactions).

140. Grinberg, *supra* note 11, at 194 n. 162.

141. Eric Mack, *Are Physical Bitcoins Legal?*, CNET (Oct. 25, 2011, 3:51 PM), http://news.cnet.com/8301-17938_105-20125470-1/are-physical-bitcoins-legal/; *Physical Bitcoins by Casascius*, CASACIUS, <https://www.casascius.com> (last visited Apr. 17, 2014).

142. Mack, *supra* note 141 (explaining that although the address is on the coins themselves, a sticker must be peeled back to reveal the code, but once it has been exposed, the code can be redeemed online and renders the coin useless until it is coded again).

143. Kaplanov, *supra* note 13, at 116.

144. Ching, *supra* note 11, at 1, 3; 18 U.S.C. § 486 (2012).

145. The metallic coin, designed to compete with U.S. currency, fits the identical description of prohibited conduct under the counterfeiting statute 18 U.S.C. § 486 (2012). The statute states:

Whoever, except as authorized by law, makes or utters or passes, or attempts to utter or pass, any coins of gold or silver or other metal, or alloys of metals, intended for use as current money, whether in the resemblance of coins of the United States or of foreign countries, or of original design, shall be under this title or imprisoned not more than five years, or both. 18 U.S.C. § 486 (2012).

146. Bailey Reutzell, *The Bitcoin ATM's First Owner is a Payments-Industry Insider*, PAYMENTS SOURCE (Oct. 4, 2013), <http://www.paymentssource.com/news/the-bitcoinatms-first-owner-is-a-payments-industry-insider-3015647-1.html>.

147. *Bitcoin Mobile Checkout*, BITPAY, <https://bitpay.com/bitcoin-mobile-checkout>

lends support to the fact that Bitcoin, while still online, is attempting to compete on a scale beyond the confines of the Internet. These developments lend support to the intent of Bitcoins and other DVCs to compete with the U.S. dollar in transactions that are not merely limited to the Internet.¹⁴⁸ If the threshold for currency competition has not been crossed yet, it will certainly be crossed within the near future.

B. THE FEDERAL RESERVE AND THE FEDERAL INTEREST IN CONTROLLING CURRENCY

Why should it matter if a currency competes with U.S. currency? A lot of it relates to the role of central banking in the United States with the Federal Reserve. Through the Federal Reserve, the United States is able to actively encourage stability in the economy and provide some protection to people's faith in the U.S. dollar,¹⁴⁹ while DVCs have shown a tendency to fluctuate wildly with market conditions.¹⁵⁰ Competition with the currency stands to upset the United States' ability to maintain economic stability; thus, there is a strong incentive to prohibit competition.¹⁵¹ Through the establishment of the Federal Reserve as a central banking authority, the U.S. government's intent is to promote "employment, stable prices, and moderate long-term interest rates."¹⁵² In order to achieve these objectives, the Federal Reserve must maintain a high degree of control over the currency.¹⁵³ Looking at the situations where currency spirals out of control and the ramifications of U.S. control of the currency through competition both demonstrate the importance of this objective.

The United States has previously attempted to establish a central bank on two occasions.¹⁵⁴ It was not until 1907 that there was a lasting

(last visited Apr. 17, 2014).

148. Grinberg, *supra* note 11, at 186.

149. THE FEDERAL RESERVE, *supra* note 102, at 16.

150. Mark T. Williams, *Bitcoin Is Not Yet Ready for the Real World*, N.Y. TIMES (Jan. 24, 2014, 11:54 AM), <http://dealbook.nytimes.com/2014/01/24/bitcoin-is-not-yet-ready-for-the-real-world/>.

151. THE FEDERAL RESERVE, *supra* note 102, at 17-18 (showing how a monopoly on the currency permits the Federal Reserve to encourage economic stability).

152. 12 U.S.C. § 225a (2012).

153. THE FEDERAL RESERVE, *supra* note 102, at 15-16 (addressing the goals of controlling the currency and the complexity and precision required to do so).

154. In 1791, the first national bank was established. Weary Americans opposed it, so its 20-year charter was not renewed. The second national bank was established in 1816, and again, the charter was allowed to expire after twenty years. Finally, nationally chartered banks, but not a central bank, were established in 1863, during the Civil War. *History of the Federal Reserve*, FEDERAL RESERVE EDUCATION, <http://www.federalreserveeducation.org/about-the-fed/history/> (last visited Apr. 17, 2014).

push to establish a central bank.¹⁵⁵ At the time, there had been two recent depressions, in 1893 and 1907, requiring private industries to bail out the government.¹⁵⁶ This inspired the public to demand a central banking authority to help ensure stability of the economy. The Federal Reserve Act was passed in 1913, establishing a central bank.¹⁵⁷ The Act served as a direct response to a lack of central banking authority, an oft-praised feature of Bitcoin and DVCs.¹⁵⁸

Since that time, there have been many changes to the Federal Reserve system.¹⁵⁹ As it stands today, the Federal Reserve acts as an independent entity, but it is subject to Congressional oversight and amendment.¹⁶⁰ Its currency regulating powers include controlling supply and demand of the U.S. dollar and bank reserve requirements.¹⁶¹ Control over supply and demand of the U.S. dollar is done through the Federal Reserve's ability to buy and sell government securities using banking reserves.¹⁶² When demand is high, the Federal Reserve may openly buy securities and lend notes to banks at an interest rate known as the federal funds rate.¹⁶³ If demand is low, the Federal Reserve may do the opposite, and sell government securities to reduce the supply.¹⁶⁴ Both of these actions have direct impacts on the federal funds rate, which the Federal Reserve tries to keep at a level that meets the needs of the economy while reigning in the rate of inflation.¹⁶⁵

The federal funds rate has a cascade effect on the economy itself.¹⁶⁶ First, it influences the interest rates on a variety of short-term investments, such as treasury bills.¹⁶⁷ The short-term interest rates then

155. *Id.*

156. *Id.*

157. *Id.*; see generally Federal Reserve Act, 12 U.S.C. §§ 221-522 (2014).

158. *History of the Federal Reserve*, *supra* note 154; Grinberg, *supra* note 11, at 181 (noting that Bitcoin can resist government interference or outlaw because it is decentralized); Kaplanov, *supra* note 13, at 120 n.57 (stating that there is no single entity that can control any transaction because it is decentralized).

159. THE FEDERAL RESERVE, *supra* note 102, at 2.

160. *Id.* at 2-3.

161. *Id.* at 16.

162. *Id.*; 12 U.S.C. § 411 (2013); 12 U.S.C. § 414 (2013); *Monopoly Power over Money*, ECONOMIST (Nov. 18, 1999), www.economist.com/node/260590/.

163. THE FEDERAL RESERVE, *supra* note 102, at 16, 28; 12 U.S.C. § 414 (2012); *Monopoly Power Over Money*, *supra* note 162.

164. THE FEDERAL RESERVE, *supra* note 102, at 28; 12 U.S.C. § 414 (2012); *Monopoly Power Over Money*, *supra* note 162.

165. More specifically, the Federal Open Market Committee, an agency that is intimately tied to the Federal Reserve, determines the ideal federal funds rate; yet, the Federal Reserve carries out this agency's objectives. THE FEDERAL RESERVE, *supra* note 102, at 11, 18, 28.

166. *Id.* at 16-17.

167. Even speculation as to the federal funds rate in the near future causes shifts in

influence long-term interest rates, i.e., mortgages and auto loans.¹⁶⁸ As the economy slows, the Federal Reserve attempts to reduce the federal funds rate to reduce interest and promote subsequent investment.¹⁶⁹ Conversely, in a booming market, the Federal Reserve may raise the federal funds rate to rein in inflation.¹⁷⁰ Although this portrays the Federal Reserve as being able to control the economy, the reality is that it is only able to encourage the economy, while a host of other factors may override its influence.¹⁷¹

For example, in the years following the 2008 housing market crash, the Federal Reserve maintained some of the lowest federal funds rates that it has ever enacted.¹⁷² Despite these efforts, the housing market is still on fragile lending grounds, five years after the fact.¹⁷³

Competing currencies, particularly DVCs, can easily undermine the efforts of central banking. A good example of this occurred recently in Argentina.¹⁷⁴ Argentina underwent a financial collapse in 2001.¹⁷⁵ Yet, it produced economic growth for several years thereafter.¹⁷⁶ Unfortunately, its central bank had not controlled inflation, routinely permitting double-digit inflation rates.¹⁷⁷ After the initial collapse in 2001, many countries were unwilling to invest in Argentina because it was deemed risky.¹⁷⁸ In 2008, it was again in a crisis with high inflation and another economic collapse on the horizon.¹⁷⁹ During this time, Argentina managed to drive away its last remaining supporters, China and Brazil, who had taken a risk on Argentina despite its financial

short-term interest rates. *Id.*

168. *Id.* at 17.

169. *Id.* at 18.

170. *Id.*

171. *Id.* at 19.

172. *Historical Data*, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, <http://www.federalreserve.gov/releases/h15/data.htm> (last visited Apr. 17, 2014) (a downloadable spreadsheet on this page highlights the funds rate by year); E. Scott Reckard, Andrew Khouri, & Alejandro Lazo, *Long Shutdown Could Hurt Housing Market Recovery*, DESERET NEWS (Oct. 4, 2013, 10:38 AM), <http://www.deseretnews.com/article/765639271/Long-shutdown-could-hurt-housing-market-recovery.html>.

173. Reckard, Khouri, & Lazo, *supra* note 172.

174. Lawrence Goodman, *Argentina Just Might Get Its Act Together*, FORBES (Jan. 10, 2013, 2:17 PM), www.forbes.com/sites/greatspeculations/2013/01/10/turn-around-time-for-argentina-2/print/.

175. Brian Winter, *Insight: The Big Money Bails on Argentina – Again*, REUTERS (June 13, 2013), www.reuters.com/assets/print?aid=USBRE95C04T20130613.

176. *Id.*

177. *Id.*; *Argentina Business Forecast Report*, BUS. MONITOR INT'L., Sept. 30, 2013, at 1, 7.

178. Winter, *supra* note 175.

179. *Id.*

track record.¹⁸⁰ Cautious citizens in Argentina began to quickly buy more stable U.S. dollars in anticipation of economic collapse.¹⁸¹ To stave off this flight, the president enacted laws discouraging currency exchange.¹⁸² While this action taken by the Argentinian government was a short-term solution to the inflation problem, stronger central bank intervention was needed to stabilize the economy.¹⁸³ Amidst this inflation crisis, a new method of discretely exporting money emerged: the Bitcoin.¹⁸⁴

While the Bitcoin has been applauded for quickly moving money out of the country without the risk of local inflation, it is precisely this action that will continue to drive up inflation.¹⁸⁵ Although Argentina was doing poorly prior to its citizens exporting wealth,¹⁸⁶ the export of wealth from the economy has only acted to undermine diligent economic recovery efforts.¹⁸⁷ It has been suggested that the same inflation avoiding measures could be taken in the United States.¹⁸⁸

The Federal Reserve is only capable of exerting an influence over inflation and the economy.¹⁸⁹ The effectiveness of the Federal Reserve and its influence on the economy can be undermined by DVCs used as an alternative to U.S. currency.¹⁹⁰ Individuals and even banks may turn

180. In an act of desperation, Argentina even threatened to detain some Brazilian company's employees if Brazil did not change its mind to stay. *Id.*

181. *Id.*

182. *Id.*

183. *Id.*; *Argentina Business Forecast Report*, *supra* note 177 (suggesting strong central bank intervention as the only factor preventing total economic collapse).

184. Timothy B. Lee, *Five Surprising Facts about Bitcoin*, WASH. POST (Aug. 21, 2013, 9:13 AM), www.washingtonpost.com/blogs/the-switch/wp/2013/08/21/five-surprising-facts-about-bitcoin-2/?print=1.

185. One of the main goals of controlling currency and interest rates is to direct both domestic investment and demand for local currency. THE FEDERAL RESERVE, *supra* note 102, at 18; Georgia Wells, *Bitcoin Downloads Surge in Argentina*, WALL ST. J. (Jul. 17, 2013, 4:37 PM), blogs.wsj.com/moneybeat/2013/07/17/bitcoin-downloads-surge-in-argentina/tab/print/.

186. Winter, *supra* note 175.

187. *Id.*

188. *The Winklevoss Twins Just Gave a Presentation on Bitcoin to a Room Full of Investors*, BUSINESS INSIDER (Sept. 17, 2013, 10:04 AM), <http://www.businessinsider.com/winklevoss-bitcoin-bitcoin-presentation-2013-9>.

189. THE FEDERAL RESERVE, *supra* note 102, at 19-20.

190. This is the exact issue that arose in Argentina, where citizens were exchanging pesos (the Argentina currency) for U.S. dollars and Bitcoins, rather than reinvesting in the local economy. Winter, *supra* note 175; *see also* Wells, *supra* note 185; Max Raskin, *Bitcoin's Gains may Fuel Central Bank Concerns: Chart of the Day*, BLOOMBERG (Jan. 27, 2013), www.bloomberg.com/news/print/2013-01-28/bitcoin-s-gains-may-fuel-central-bank-concerns-chart-of-the-day.html (noting that Bitcoins can undermine the role of central banking as an easy alternative to national currency).

to DVCs as an alternative store for money,¹⁹¹ reducing the overall demand for U.S. dollars and the Federal Reserve's ability to stimulate demand.¹⁹² For the world's largest economy, the impact of this can be devastating.¹⁹³ It is in the United States' best interest to prevent its currency from being undermined.

C. CRIMINAL LAW INTERESTS IN CONTROLLING CURRENCY

Aside from strictly economic concerns, there are several concerns surrounding Bitcoin and other DVCs that have attracted the attention of Congress and several U.S. agencies.¹⁹⁴ The main concerns raised revolve around the anonymity of the transactions to facilitate money laundering, buying and selling contraband, and tax evasion.¹⁹⁵

The United States enacted a statute to counter money laundering.¹⁹⁶ The statute itself states that transactions involving money from, or for an illicit purpose, or with the intent to conceal the source of the money is against the law.¹⁹⁷ This includes transferring money while knowing the intent is to conceal the source or to avoid state and federal reporting requirements.¹⁹⁸ The Supreme Court defines money laundering as "taking steps to make funds appear legitimate."¹⁹⁹ However, transporting concealed money, by itself, can be sufficient to satisfy the statutory definition of money laundering.²⁰⁰ This comes into conflict with Bitcoins, which are designed to provide anonymity as to the source and identity of the owner.²⁰¹ Although it is arguably not Bitcoin's

191. John Carney, *Of Course You Can Have Fractional Reserve Bitcoin Banks*, CNBC (Sept. 20, 2013, 9:53 AM), www.cnbc.com/id/101048897 (showing how a Bitcoin bank may operate without the need for any exchange with U.S. currency).

192. The Federal Reserve's main method of encouraging demand is to reduce the supply of reserves available, which is rendered ineffective when a competing currency subverts that demand. THE FEDERAL RESERVE, *supra* note 102, at 18; *see also* Winter, *supra* note 175 (noting a similar situation where citizens were exchanging pesos for inflation-proof U.S. dollars rather than reinvest in the economy).

193. *Default Fears Fuel Angst in Shutdown Washington*, GLOBAL POST (Oct. 7, 2013, 5:46 PM), <http://www.globalpost.com/dispatch/news/afp/131007/default-fears-fuel-angst-shutdown-washington-0>.

194. Among others, the Department of Justice, the Securities and Exchange Commission, and the Department of Homeland Security. Kashmir Hill, *Congress Is Nervous About this Whole Bitcoin Thing*, FORBES (Aug. 15, 2013 6:24 PM), www.forbes.com/sites/kashmirhill/2013/08/15/congress-is-nervous-about-bitcoin/.

195. Hill, *supra* note 194.

196. 18 U.S.C. § 1956 (2012).

197. *Id.* at § 1956(a).

198. *Id.* at § 1956(a)(1)(B)(i)-(ii).

199. *Cuellar v. United States*, 553 U.S. 550, 558 (2008).

200. *Id.* at 558-59.

201. Kaplanov, *supra* note 13, at 119.

primary purpose, it readily facilitates the concealment of ill-gotten money.²⁰²

Other regulatory laws similar to the money laundering statute may also be routinely violated by Bitcoin and DVC transactions. For example, the bulk cash smuggling statute may be violated by DVC transactions over \$10,000.00.²⁰³ It provides that any intent to evade reporting requirements while transferring over \$10,000.00 in currency or *other monetary instruments*, outside the United States is a violation of the law.²⁰⁴ This is only one law encompassed in the larger Bank Secrecy Act, and is only one among numerous banking and financial regulations that may apply to the exchange of DVCs.²⁰⁵ Domestically, the same law applies to any transaction occurring within the United States for over \$10,000.00.²⁰⁶ The inherent anonymity provided by Bitcoin and other DVCs provides an easy avenue to circumvent these requirements, despite recent classification of Bitcoin exchanges as money transmitters within the scope of the Bank Secrecy Act.²⁰⁷

Both the Bank Secrecy Act and the anti-money laundering statutes are typically applied to illicit transactions in United States.²⁰⁸ The registration and record keeping requirements of these laws even apply to overseas operations as long as they are transacting business within the United States.²⁰⁹ This provides the United States with broad powers of enforcement as long as U.S. currency is involved.

For example, in *Cuellar v. United States*, the defendant was charged with money laundering and bulk smuggling of currency after attempting to take \$81,000.00 into Mexico.²¹⁰ The defendant tried to claim that he could not be punished twice for the same act, and that money laundering could not be charged in addition to the bulk smuggling act.²¹¹ The court held, however, that both statutes apply because they hinge on different forms of intent.²¹² As a result, the defendant can

202. Grinberg, *supra* note 11, at 181 n.92.

203. 31 U.S.C. § 5332(a)(1) (2012).

204. *Id.*; *Cuellar*, 553 U.S. at 560.

205. 31 U.S.C. § 5332(a)(1); 31 C.F.R. § 103 (2009) (listing the entire law, which covers over 200 pages of regulations for financial institutions).

206. 31 U.S.C. § 5313(a) (2012) (establishing the general reporting requirements when transacting in U.S. currency); 31 C.F.R. § 103.22 (2009).

207. Dion, *supra* note 28, at 168 (anonymous transactions); DEP'T OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, *supra* note 19, at 5 (stating that exchanges are money transmitters subject to reporting requirements of money transmitters); 31 C.F.R. § 103.11(uu)(5) (2009).

208. Grinberg, *supra* note 11, at 204.

209. *Id.* at 206 n.216.

210. *Cuellar v. United States*, 553 U.S. 550, 550 (2008).

211. *Id.* at 560.

212. *Id.* at 560-61.

be on the hook for multiple claims, providing broad and overlapping means of enforcement in protecting U.S. currency and a host of other illicit activities. With DVCs, however, it is unclear if these rules apply, and undermines U.S. law enforcement's efforts to control crime by applying the laws of U.S. currency.²¹³

Similar to these concerns are the questions raised by taxes on Bitcoins. First, there are the basic tax implications raised by Bitcoins. Any transaction of Bitcoins through a third party, for instance, is subject to reporting requirements laid out by the IRS.²¹⁴ Sales tax is another area that is potentially applicable to Bitcoins.²¹⁵ The Government Accountability Office (GAO) also suggests that mining Bitcoins or accepting Bitcoins in a transaction may be subject to standard income tax.²¹⁶ While the implications may be straightforward, application is a little more difficult.

The enforcement and compliance issues in taxing DVCs are especially difficult given the anonymity and unknown scope of use.²¹⁷ The first problem is that many users simply lack basic knowledge regarding the tax reporting requirements of mining or transacting in Bitcoins.²¹⁸ The Government Accountability Office suggests providing clear and accessible information from the IRS to address this problem.²¹⁹ This solution only provides answers to tax liability, though. The report itself admits uncertainty when addressing how to characterize income from Bitcoins and how a third party is supposed to report transactions that are anonymous.²²⁰ The IRS has recently reported that Bitcoins and other DVCs are to be treated like property.²²¹ This determination is far from definitive, however, because the notice itself requests community input on tax treatment of Bitcoin.²²² While it may be clear that tax implications do exist, DVC users are currently escaping any liability.

The biggest tax concern, however, is intentional tax evasion. As it stands today, there are many laws that compel overseas financial institutions to report suspicious activity that is indicative of tax

213. Grinberg, *supra* note 11, at 206.

214. VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119, at 9.

215. Brian Fung, *What an Internet Sales Tax Could Mean for Your Bitcoin Stash*, NAT'L J. (Apr. 25, 2013), <http://www.nationaljournal.com/tech/what-an-internet-sales-tax-could-mean-for-your-bitcoin-stash-20130425>.

216. VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119, at 12.

217. Marian, *supra* note 100, at 43-44 (noting that many illicit uses can only be determined by voluntarily reporting the violations).

218. VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119, at 12-13.

219. *Id.* at 13.

220. *Id.* at 13-14.

221. See INTERNAL REVENUE SERV., NOTICE 2014-21 2 (2014), *available at* <http://www.irs.gov/pub/irs-drop/n-14-21.pdf>

222. *Id.* at 1-2.

evasion.²²³ Unfortunately, these efforts are only furthered at financial institutions where U.S. or foreign currencies are held.²²⁴ The anonymity of transactions and the lack of a central authority or banks prevent any internal regulation of the currency.²²⁵ Absent these restrictions, it is easy to circumvent financial institutions and any jurisdictional regulations.²²⁶ A single Bitcoin account can be involved in a variety of transactions or simply as a savings account, and the IRS will never know of it unless it is voluntarily reported.²²⁷ The parties lack an incentive to report, however, as it is unlikely that the transaction will be discovered unless reported.²²⁸ The tax issues, in addition to money laundering and banking issues, all raise substantial concerns surrounding Bitcoin's ability to evade financial regulation.

Aside from strictly financial concerns regarding Bitcoin, there are also concerns dealing with illicit transactions.²²⁹ Congress initially began exploring the use of Bitcoin and other DVCs in anonymous drug purchases as early as June 2011.²³⁰ Investigation has expanded as more agencies are inquiring about the currency's impact on illicit transactions.²³¹

The most notable investigation centers around a website known as the "Silk Road."²³² It was a black market for narcotics sales that opened around the same time as the Congressional investigation in 2011.²³³ Almost any illicit drug, in addition to forged documents and illegal services, could be purchased from the site.²³⁴ The site was protected because it made use of special servers to conceal the identity of customers, and it traded exclusively in Bitcoin to maintain anonymity.²³⁵

223. Marian, *supra* note 100, at 41.

224. *Id.* at 41-42.

225. *Id.* at 42.

226. *Id.*

227. *Id.* at 42-44.

228. *Id.* at 42.

229. Brett Wolf, *Senators Seek Crackdown on "Bitcoin" Currency*, REUTERS (June 8, 2011), www.reuters.com/assets/print?aid=USTRE7573T320110608.

230. *Id.*

231. For example, the New York State Department of Financial Services, the IRS, and the U.S. Treasury Department have all investigated regulatory efforts on Bitcoin. Alexandra Frean, *Virtual Currencies Such as Bitcoin Cause the Jitters*, TIMES (Aug. 15, 2013, 12:01 AM), <http://www.thetimes.co.uk/tto/news/world/americas/article3842969.ece#>.

232. Joseph Goldstein, *Arrest in U.S. Shuts down a Black Market for Narcotics*, N.Y. TIMES (Oct. 2, 2013), <http://www.nytimes.com/2013/10/03/nyregion/operator-of-online-market-for-illegal-drugs-is-charged-fbi-says.html>.

233. *Id.*; Wolf, *supra* note 229.

234. Goods and services ranged from LSD, cocaine, and other drugs to forged documents; its owner was arrested, in part, for attempting to hire a hitman. Complaint at 2, 9-10, *United States v. Ulbricht*, No. 1:13cv6919 (S.D.N.Y. Oct. 2, 2013).

235. The servers themselves were able to mask the identity of those that accessed the

On October 1, 2013, the FBI, with the assistance of several government agencies, arrested Ross Ulbricht, also known as “Dread Pirate Roberts,” the mastermind behind the Silk Road.²³⁶ Ulbricht was charged with computer hacking conspiracy, money laundering, and narcotics trafficking conspiracy.²³⁷ The FBI investigation revealed that there were nearly one million registered accounts on the Silk Road and it enabled roughly 9.5 million Bitcoins (\$1.2 billion at the time) in transactions.²³⁸

Although Silk Road was most notorious for enabling illicit drug sales on the Internet, it was facilitated with the exclusive exchange in Bitcoins.²³⁹ More importantly, the FBI seized 26,000 Bitcoins, and stands to seize an additional 574,000 collected (about \$80 million total) as commissions from the website’s transactions.²⁴⁰ The FBI is now in a unique position as to how it should deal with the coins.²⁴¹ In a typical scenario, the FBI seizes U.S. dollars, which are eventually “donated” to the United States.²⁴² However, Bitcoins exist only in cyberspace and the U.S. has issued little guidance in negotiating the legal concerns surrounding them.²⁴³ There is also a bigger implication that the U.S. actions will demonstrate that it either condones or condemns DVCs if it chooses to exchange the Bitcoins in a legitimate transaction.²⁴⁴

The Silk Road seizure also raises questions about the extent of Bitcoins being used for illicit transactions. Until now, the legitimate uses of Bitcoin have been praised, while the illegitimate purposes have been largely unknown.²⁴⁵ The Bitcoins held by Ulbricht from commissions alone constitutes about five percent of all the Bitcoins in existence at the time.²⁴⁶ That is without considering the 9.5 million Bitcoins that

site and who the server administrators were. *Id.* at 5-6, 12.

236. Participating agencies included the DEA, IRS, and Department of Homeland Security, who all have had an interest in determining how to approach the legality of Bitcoins. Graham Templeton, *Silk Road Shutdown: The Rise and Fall of One of the Web’s Most Successful and Naïve Cyber Criminals*, EXTREMETECH (Oct. 3, 2013, 9:32 AM), www.extremetech.com/extreme/167885-silk-road-shutdown-the-rise-and-fall-of-one-of-the-webs-most-successful-and-naive-cyber-criminals?print; Goldstein, *supra* note 232.

237. Complaint at 1-3, *Ulbricht*, No. 1:13cv6919.

238. *Id.* at 14-15.

239. *Id.* at 12.

240. *Id.* at 15; Goldstein, *supra* note 232.

241. Robert McMillan & Cade Metz, *The Ultimate Bitcoin Question: Can the Feds Spend \$3.3M in Seized Digital Currency?*, WIRED (Oct. 8, 2013, 6:30 AM), <http://www.wired.com/wiredenterprise/2013/10/silk-road-bust/>.

242. *Id.*

243. *Id.*

244. *Id.*

245. Kaplanov, *supra* note 13, at 169-70.

246. According to the website, *Blockchain*, there were 11,791,000 Bitcoins (as of October 16, 2013) and the FBI complaint alleged that 614,305 Bitcoins were seized.

moved through the site since its inception.²⁴⁷ Some have argued that this will promote increased legitimacy of Bitcoin.²⁴⁸ In fact, the currency has been promoted as a drug enforcement tool because it keeps a record of past transactions.²⁴⁹ Despite these claims though, it is also noted that new Silk Road doppelgangers are already popping up on the Internet to take its place.²⁵⁰

Overall, there are a number of issues presented that question the legality of Bitcoins. All the laws suggested thus far were enacted as a means to prevent criminal use of U.S. currency.²⁵¹ With the recent characterization of Bitcoin as a currency and the issue of some regulation also interpreting it as a currency, the same laws should hold a similar application.²⁵² The real question is, in light of the circumstances, how to proceed in enforcing the legal issues raised by DVCs.

D. A PROPOSAL TO OUTLAW A CURRENCY WITH NO CENTRAL AUTHORITY

Legal issues surrounding Bitcoin and other DVCs commonly raise considerations of regulation and outlaw.²⁵³ Outlawing the currency while providing a reasonable and centralized alternative is the best course of action to address these concerns. Regulation is an impractical means of solving the legal issues surrounding Bitcoin.²⁵⁴ Instead, outlaws have been successfully implemented in both digital currencies and in decentralized network contexts. With the overwhelming exchange rate to the U.S. dollar, an outlaw within the United States is likely to be strong enough to stop Bitcoin and any other competing DVCs.²⁵⁵

(614,305/11,791,000)X100 = 5.08%). Complaint at 15, *United States v. Ulbricht*, No. 1:13cv6919 (S.D.N.Y. Oct. 2, 2013); *Total Bitcoins in Circulation*, *supra* note 138 (showing the total number of Bitcoins that exist).

247. Complaint at 15, *Ulbricht*, No. 1:13cv6919.

248. Joshua Brustein, *The End of the Internet's Biggest Black Market is Good for Bitcoin, Technology*, BLOOMBERG BUSINESSWEEK (Oct. 2, 2013), <http://www.businessweek.com/articles/2013-10-02/silk-roads-demise-sinks-bitcoin-value-and-saves-bitcoins-reputation> (noting that closure of Silk Road removes the most negative association with Bitcoin while promoting continued use for legitimate purposes).

249. *Id.*; Kaplanov, *supra* note 13 (noting that identification of even one person involved in narcotics trafficking could lead to multiple arrests and ultimately the source of the drug ring).

250. Ormsby, *supra* note 102.

251. 18 U.S.C. § 1956 (2013); 31 C.F.R. § 103 (2009); Marian, *supra* note 100.

252. DEP'T OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, *supra* note 19.

253. Dion, *supra* note 28, at 197.

254. For example, intentional tax evasion is only successful because its members actively *avoid* following regulations. This flies in the face of IRS recommendations to implement regulation by simply informing individuals of tax reporting obligations. Marian, *supra* note 100.

255. Over seventy-five percent of all currency exchanges are between Bitcoin and

While some say that Bitcoin and other DVCs cannot be outlawed,²⁵⁶ there are several similar situations where virtual currency and decentralized network activity has been outlawed and enforced.²⁵⁷ In China, there was a virtual currency that developed known as the Q coin.²⁵⁸ It was developed by Tencent Holdings, Ltd, an online gaming company.²⁵⁹ Like other video games, it began to offer Q coins for playing the game or in exchange for yuan (Chinese currency).²⁶⁰ Q coins enabled players to purchase extra content in the games they were playing.²⁶¹ The coins were so popular that they began to transcend the confines of the game and make their way into everyday, physical transactions for goods and services.²⁶² It became lucrative enough for companies to open “virtual sweatshops” geared exclusively towards procuring the virtual currency.²⁶³

This raised both concerns with currency competition and concerns with illicit activities.²⁶⁴ Initially, China reacted by approaching the currency from a regulatory standpoint and implemented an income tax on the currency.²⁶⁵ However, as time went on, it had to implement a total ban to prevent increased usage.²⁶⁶ The ban, while directed primarily toward the gaming websites that issued the currency, was not expected to harm the gaming industry.²⁶⁷ This is partially because trading in these currencies was occurring through third parties.²⁶⁸

More recently, China has followed this prior precedent by enacting a ban on any financial institution or third party institution from

U.S. dollars as of January 9, 2014. *Exchange Volume Distribution*, BITCOIN CHARTS, <http://bitcoincharts.com/charts/volumepie/> (last visited May 7, 2014).

256. Kaplanov, *supra* note 13; Dion, *supra* note 28, at 197.

257. Mark Lee, *China Government Bans Online Virtual-Currency Dealing Platforms for Minors*, BLOOMBERG, Jun. 22, 2010, www.bloomberg.com/news/print/2010-06-22/tencent-shares-fall-after-china-announces-virtual-currency-ban-for-minors.html; *Next Phase Distrib., Inc. v. Does 1-27*, 284 F.R.D. 165, 166-67 (S.D.N.Y. 2012).

258. Lee, *supra* note 257.

259. *Id.*

260. *Id.*

261. *Id.*

262. Juliet Ye, *China Cracks Down on Virtual Currency for Real*, WALL ST. J. (June 29, 2009), blogs.wsj.com/chinarealtime/2009/06/29/china-cracks-down-on-virtual-currency-for-real/tab/print/.

263. David Barboza, *In China, New Limits on Virtual Currency*, N. Y. TIMES (July 1, 2009), www.nytimes.com/2009/07/01/technology/internet/01yuan.html?pagewanted=print.

264. Lee, *supra* note 257; Ye, *supra* note 262 (discussing that uses include purchase of clothes, food, and online gambling, which is illegal in China).

265. Ye, *supra* note 262.

266. Barboza, *supra* note 263.

267. *Id.*

268. *Id.*

exchanging Bitcoins.²⁶⁹ The action was guided by its own central bank amid similar concerns to those posed by the Q coin.²⁷⁰ As of January 25, 2014, the Chinese were the largest exchangers of Bitcoins and the second largest economy in the world.²⁷¹ Its decision to ban the coin single-handedly caused a fifty percent drop in Bitcoin's value.²⁷² Today, China accounts for around seven percent of all Bitcoin exchanges, far less than before implementing its ban.²⁷³ Other countries are also beginning to view Bitcoin and DVCs as a less reasonable alternative to traditional banking.²⁷⁴

These situations highlight the primary incentives and, to some extent, how the United States would enact a similar ban.²⁷⁵ While DVCs lack a central authority like the Chinese Q coin, they can still be banned by enforcement at the various transaction hubs, similar to the Chinese ban on Bitcoin.²⁷⁶ For example, shutting down the main exchanges that change Bitcoin into U.S. currency would be an effective means to curb Bitcoin transactions. As of January 25, 2014, about seventy-seven percent of all Bitcoin exchanges were for U.S. dollars, and seventy-seven percent of all transactions to U.S. dollars were performed through three exchanges.²⁷⁷ Shutting down the largest exchanges alone would have a significant impact on the Bitcoin economy, especially considering that the U.S. currency and exchange account for a much larger portion of the Bitcoin economy than China's currency.²⁷⁸ If this effort were coupled with restrictions on business transactions in Bitcoin, many businesses' interest and the popularity of the currency

269. Charles Riley, *Alibaba bans Bitcoin amid China Crackdown*, CNN MONEY (Jan. 9, 2014), <http://money.cnn.com/2014/01/09/news/bitcoin-alibaba/>.

270. *Id.*

271. While the second largest exchanger, China only accounts for fourteen percent of the total volume of exchange in Bitcoin. *Exchange Volume Distribution*, *supra* note 255; Williams, *supra* note 150 (discussing that China is the second largest economy in the world).

272. Williams, *supra* note 150.

273. *Exchange Volume Distribution*, *supra* note 255.

274. *Id.*

275. Lee, *supra* note 257 (citing currency competition as one purpose for banning Q coins).

276. Tencent Holdings, Ltd. was the central issuing authority for Q coins. *Id.*; Riley, *supra* note 269 (noting that bans at major banks and businesses have hindered use of Bitcoin in China).

277. *Exchange Volume Distribution*, *supra* note 255.

278. In fact, China only accounted for around fourteen percent of all Bitcoin exchanges as of January 25, 2014, yet it was able to cause a fifty percent drop in Bitcoin value. The United States, on the other hand, could devastate the Bitcoin economy because it accounts for seventy-seven percent of all exchanges, a substantially larger share. *Exchange Volume Distribution*, *supra* note 255; Williams, *supra* note 150.

would likely decline.²⁷⁹

With the major exchanges and businesses driven away from Bitcoin, there would still be the concern with small peer-to-peer exchanges occurring.²⁸⁰ This is not the first time that the United States has been confronted with difficult enforcement efforts in decentralized, peer-to-peer networks. Take the case of *A&M Records v. Napster, Inc.* for example.²⁸¹ Napster, Inc. was the pioneer in peer-to-peer networking.²⁸² At the time, the company required a central server to route music transmission, but more sophisticated file sharing programs have become decentralized.²⁸³ The gist of how it works is very similar to Bitcoin. Each user had to download software and login to a network, much like Bitcoin's virtual wallet and address.²⁸⁴ Once that was done, users were free to communicate with one another and upload/download any music that they wanted.²⁸⁵ Everyone was happy except for those owning copyrights of the data that was traded.²⁸⁶

Since Napster, Inc. had a central authority, it was easy for A&M Records to seek out and sue it for copyright infringement.²⁸⁷ The court held that Napster, Inc. had infringed on numerous copyrights and ordered an injunction that effectively shut the site down.²⁸⁸ Since then,

279. Michael De Groote, *Bitcoin Fever: The Virtual Money Everybody may use Someday*, DESERET NEWS (Oct. 11, 2013), www.deseretnews.com/article/print/865588139/Bitcoin-fever-The-virtual-money-everybody-may-use-someday.html (discussing speculation over Bitcoin and a suggested rise in acceptance of Bitcoins as payment, which would be removed if outlawed); Riley, *supra* note 269 (demonstrating that China's ban on Bitcoin has already lead to popular businesses also prohibiting exchange in the currency).

280. Derek Dion suggests that an outlaw of Bitcoin would leave savvy users to their devices to engage in illicit transactions. Dion, *supra* note 30, at 197.

281. *A&M Records v. Napster, Inc.*, 239 F.3d 1004, 1010-12 (9th Cir. 2001); *see generally* Next Phase Distrib., Inc. v. Does 1-27, 284 F.R.D. 165 (S.D.N.Y. 2012) (addressing a more recent and analogous situation to Napster).

282. Marshall Brain, *How Gnutella Works*, HOW STUFF WORKS, computer.howstuffworks.com/file-sharing.htm/printable (last visited Apr. 17, 2014).

283. More recent examples include Gnutella and Scour. Gnutella maintains a decentralized network by seeking out other Gnutella users. As more users connect to one another, a large, decentralized network is established. This network can be accessed with a variety of programs like LimeWire, Morpheus, etc. Jeff Tyson, *How the Old Napster Worked*, HOW STUFF WORKS, www.howstuffworks.com/napster.htm/printable (last visited Apr. 17, 2014); Brain, *supra* note 282.

284. Tyson, *supra* note 283.

285. *Id.*

286. *Napster, Inc.*, 239 F.3d at 1010-11.

287. For example, *A&M Records in the case against Napster, Inc. A&M Records v. Napster, Inc.*, 239 F.3d 1004, 1010-11 (9th Cir. 2001).

288. *Id.* at 1027; *A&M Records, Inc. v. Napster, Inc.*, No. C 99-05183 MHP, MDL No. C 00-1369 MHP, 2001 U.S. Dist LEXIS 2186 at *3-9 (N.D. Cal. Mar. 5, 2001) (affirming an injunction that prevents Napster from distributing music).

other groups have copied the *Napster* concept.²⁸⁹ Applying a decentralized network, they mimic the model that Bitcoin operates on and highlights some of the difficulties in regulation.²⁹⁰ Although there is no central authority, the music and movie industry still made efforts to curb illegal file sharing by investigating and suing the largest infringers.²⁹¹ Initially, these efforts had a positive impact on the industry by demonstrating that file-sharing copyrighted material was illegal.²⁹² The music and movie industries also went after any intermediary that facilitated file-sharing.²⁹³

Although these efforts have historically had mixed success,²⁹⁴ a similar application to Bitcoin would operate successfully.²⁹⁵ Unlike pirated movies and music, which hold inherent entertainment value, there is little, if any, incentive to possess or exchange the coins once there are no legitimate places to spend or exchange them.²⁹⁶ Without a continued incentive to obtain Bitcoins, the enforcement policy applied to the music industry avoids the pitfall presented by the illegal exchange of movies and music, where other decentralized networks appear almost immediately after one is shut down.²⁹⁷

As a result, the United States could successfully maintain a similar stance that the music industry has applied in strictly limiting intermediaries from exchanging or accepting Bitcoins, while prosecuting the most egregious offenders to raise public awareness of the illegality.²⁹⁸ Coupling these efforts with press releases similar to those warning

289. Brain, *supra* note 282.

290. *Id.*

291. Stephanie Watson, *How Kazaa Works*, HOW STUFF WORKS, computer.howstuffworks.com/kazaa.htm/printable (last visited Apr. 17, 2014); *Artista Records, LLC v. Lime Wire, LLC*, 06 Civ. 05936, 2010 U.S. Dist. LEXIS 115675 at *17 (S.D.N.Y. Oct. 27, 2010) (issuing a permanent injunction against Lime Wire, a Gnutella network access provider); *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 941 (2005) (holding Grokster and Streamcast, two Gnutella providers, partly responsible for copyright infringement).

292. Christopher M. Swartout, *Toward a Regulatory Model of Internet Intermediary Liability: File-Sharing and Copyright Enforcement*, 31 NW. J. INT'L L. & BUS. 499, 506 (2011).

293. *Id.*

294. *Id.* at 505-06.

295. Marian, *supra* note 100.

296. While the actual amounts of music and movie piracy are unclear, music and movie industry investment in stopping the practice demonstrates the inherent value in controlling the distribution of music and films. Unlike movies and music with inherent value, DVCs do not have inherent value, but are governed by supply and demand. Swartout, *supra* note 292, at 504; Grinberg, *supra* note 11, at 200.

294. Swartout, *supra* note 292, at 506 (showing an increase in file sharing over time after initial declines from the music industry's enforcement efforts).

298. *Id.* at 505-07; Grinberg, *supra* note 11, at 200.

consumers about illicit circulation of Liberty Dollars would restrict Bitcoin use to only the most avid users.²⁹⁹ Due to Bitcoin's lack of inherent value, however, the practicality and value for continued use of Bitcoins would be low due to reduced demand by only a small group.³⁰⁰ While it is unlikely that all exchange of Bitcoin could be eliminated, enforcement of an outlaw would be easier to manage, and could probably be handled by one of the existing agencies (FBI, IRS, etc.) that has already expressed a concern over the trade in DVCs.³⁰¹

To implement this policy, Congress should enact laws that prohibit the exchange of DVCs (similar to China's Bitcoin ban).³⁰² This would not be a unique stance given the United States' historical prohibition on competing currencies.³⁰³ The United States would need to craft a clear definition for what a DVC is and delegate enforcement of the law to a particular agency. Fortunately, many of these details have already been considered and can be adapted to fit the needs of a ban. Thus far, the Department of the Treasury and the GAO have defined DVCs with specificity and the Silk Road bust demonstrated that the FBI or IRS would be competent agencies to enforce the law.³⁰⁴ Any of these agencies could take part in enforcing shutdowns and prohibitions on exchanging Bitcoins within the United States by any bank or company.

In conjunction with these efforts, the United States could go further to reduce overall use and demand (even by small numbers of individuals) for DVCs by implementing its own form of digital currency. This would increase pressure on any remaining DVC to remain viable amidst a convenient and legal alternative.³⁰⁵ Canada is already piloting a program like this.³⁰⁶ The idea is to create a digital form of currency

299. Press Release, U.S. Mint, *supra* note 127; Dion, *supra* note 28, at 197 (discussing that a small group of tech savvy individuals will always use Bitcoins); Marian, *supra* note 100 (pointing out that government intervention would act to reduce overall liquidity and value and drive down popularity).

300. The alternative to this would be to admit that there are enough avid users that are engaging in illicit transactions to maintain the currency. However, this only highlights an alternative justification for outlaw. Marian, *supra* note 100 (addressing that those that intend to evade taxes are not going to stop because they are informed it is against the law); Kaplanov, *supra* note 13.

301. Templeton, *supra* note 236.

302. Riley, *supra* note 269.

303. *United States v. Van Auken*, 96 U.S. 366, 367 (1878) (identifying a Constitutional right to prohibit currency competition); Ching, *supra* note 11 (highlighting a modern application of the law against currency competition).

304. DEP'T OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, *supra* note 19; VIRTUAL ECONOMIES AND CURRENCIES, *supra* note 119, at 3-4; Templeton, *supra* note 236.

305. Brustein, *supra* note 248 (noting that many like Bitcoin because of its fast and inexpensive transactions and would like to distance themselves from illegitimate uses).

306. John Greenwood, *Canadian Mint Ready to Test its own Digital Money*, CANADA.COM (Sept. 19, 2013), www.canada.com/story_print.html?id=8931925&sponsor=

that at least matches the proposed convenience of DVCs.³⁰⁷ The currency is supposed to be able to perform small, routine transactions electronically without the need for any third parties, such as credit card companies.³⁰⁸ In doing so, they are attempting to dig into the popular DVC market.³⁰⁹ There is nothing that would stop the United States from implementing a similar plan. In controlling and issuing a government-run digital currency, the United States would be able to also implement many of the legal oversights that are lacking with DVCs.³¹⁰

As far as practical application is concerned, most organizations would simply need to refuse to accept Bitcoins in compliance with the law.³¹¹ In practice this has already been applied in China by the Internet retailer, Alibaba, which banned Bitcoin in compliance with the Chinese ban.³¹² Prohibiting exchange, as opposed to possession, would be a much easier method of enforcement as well and would avoid the legal concerns that could be raised with those that already are in possession of Bitcoins.³¹³ As far as law enforcement is concerned, many of the same laws that exist with respect to counterfeiting, tax evasion, and currency competition could continue to be charged.³¹⁴

The major criticism of this plan is largely an ideological one. Aside from those that tout convenience and anonymity, many applaud Bitcoin for getting away from central banking, government authority, and the uncontrolled printing of money.³¹⁵ Despite these criticisms, the government has strong precedent in both the U.S. Constitution and prior cases dealing with currency competition.³¹⁶ The United States would be deviating from past policy and precedent if it *did not* outlaw the currency.³¹⁷

307. *Id.*; see generally Kaplanov, *supra* note 13, at 116.

308. Ian Austin, *Canada Seeks to Turn Coins into Digital Currency*, N. Y. TIMES (Apr. 12, 2012), bits.blogs.nytimes.com/2012/04/12/canada-seeks-to-turn-coins-into-digital-currency/?pagewanted=print.

309. Greenwood, *supra* note 306.

310. Jon Matonis, *MintChip Misses the Point of Digital Currency*, FORBES (Apr. 12, 2012), www.forbes.com/sites/jonmatonis/2012/04/12/mintchip-misses-the-point-of-digital-currency/print/.

311. Riley, *supra* note 269.

312. *Id.*

313. *Id.*

314. For instance, the same laws brought against the Liberty Dollar that dealt with counterfeiting and currency competition would be equally applicable here. Ching, *supra* note 11, at 2.

315. Kaplanov, *supra* note 13, at 121 (noting that Bitcoin is inflation-proof because it automatically limits the production rate of currency and cannot be interfered with by central banks).

316. U.S. CONST. art. I, § 8, cl. 5-6; see also Ching, *supra* note 11, at 3; United States v. Falvey, 676 F.2d 871, 876 (1st Cir. 1982).

317. 1884 Legal Tender Case, 110 U.S. 421, 445-46 (interpreting an absolute authority for Congress to issue and control a national currency); Ching, *supra* note 11 (illustrat-

Outlaw of DVCs would not only comply with precedent, but can also be easily implemented.³¹⁸ Regulation, on the other hand, has still left a great deal of uncertainty.³¹⁹

Similarly, some criticisms have been raised about developing a virtual currency backed by a country. For example, a major criticism of Canada's plan to implement a digital currency is that it does not adequately address the point of DVCs.³²⁰ Some argue that the purpose of DVCs is to create currency that is "nonpolitical" and functions independent of any country.³²¹ A government-backed digital currency would also inherently remove any of the privacy that Bitcoin users enjoy.³²² Despite these criticisms, however, there would be a positive draw for individuals that use Bitcoins for convenience as opposed to supporting a nonpolitical and anonymous currency.³²³ This includes the individuals that have actively requested that their government issue guidance on regulating Bitcoins to provide more certainty in the currency.³²⁴ They know that regulation will eliminate the anonymity and the nonpolitical nature, to an extent, but will retain the convenience of the currency.³²⁵ An easy solution to this problem is to follow Canada's lead and create a U.S. currency that maintains the functional convenience of Bitcoin, while still applying U.S. banking regulations.³²⁶ This will draw some, if not most, of the support from the DVC community.

ing a modern application of the policy against competing and debasing U.S. currency).

318. The Liberty Dollar was removed from circulation with little more than application of existing laws and a press release. Aside from enacting a law banning DVCs, use could be limited with similar steps. Press Release, U.S. Mint, *supra* note 127; *see also* Riley, *supra* note 269 (showing that a ban on Bitcoin has already lead to compliance with major banks and businesses in China).

319. Williams, *supra* note 150 (noting that some countries have banned the Bitcoin and those that have not have been wary of embracing Bitcoin, which has made American banks and businesses hesitant amidst ambiguous legality).

320. Matonis, *supra* note 310.

321. *Id.*

322. *Id.* (questioning the proposed privacy measures of the Canadian issued digital currency).

323. *Id.* In fact, the Canadian issued digital currency has some advantages over Bitcoin. It can process secure transactions quicker than Bitcoin and does not need an Internet connection to work. *Id.*; *see also* Charles Arthur, *Bitcoin Dealers ask for Official Regulation*, THE GUARDIAN (Sept. 5, 2013), <http://www.theguardian.com/technology/2013/sep/05/bitcoin-dealers-regulation-downing-street>.

324. Arthur, *supra* note 323.

325. For example, applied FinCEN regulations eliminate anonymity for individuals that exchange Bitcoins for U.S. dollars. DEP'T OF TREASURY FIN. CRIMES ENFORCEMENT NETWORK, *supra* note 19.

326. Matonis, *supra* note 310 (suggesting that implementation of digital currency will come with the regulations imposed normally on currency).

While regulation is another proposed means of addressing DVCs, it is an unworkable alternative.³²⁷ The purpose of Bitcoin is to provide a cheap, anonymous alternative to transactions with other currencies.³²⁸ With this in mind, regulation is an impractical option. Any regulatory efforts will certainly require some sort of registration or other means to eliminate anonymity and hamper cheap transaction costs, two of the major features that Bitcoin users praise.³²⁹ This removes an economic incentive for legitimate transactions to occur.³³⁰ Instead, regulation will condone the exchange of DVCs, while illicit uses will be the best reason to do so.³³¹ Regulatory efforts will be further complicated because intentional violators will remain completely anonymous.³³² More importantly, condoning a private currency alters the precedent against currency competition and will open the doors to additional currencies gaining legitimate status.³³³ The better path is the outlaw of DVCs, which will remove any ambiguity as to an individual's purpose in holding certain DVCs.

Another proposed, but also unworkable solution involves the U.S. government buying out Bitcoins and holding them indefinitely.³³⁴ This would help prevent Bitcoin use by removing it from an already limited pool of currency.³³⁵ For other DVCs that spring up suddenly and do not implode immediately,³³⁶ the government could simply buy out or mine

327. Dion, *supra* note 28; Kaplanov, *supra* note 13, at 173; *see also* Grinberg, *supra* note 11, at 187 (stating that banning Bitcoin would not appropriately address competition with U.S. currency, making it an unreasonable course of action).

328. Kaplanov, *supra* note 13, at 116.

329. Bitcoin exchanges, falling under money services businesses, are subject to a variety of reporting requirements including retention of records, which inherently removes a degree of anonymity from the transaction itself. 31 C.F.R. § 103.11(uu)(5) (2009); 31 C.F.R. § 103.20(a) (2009); *see also* McGarvey, *supra* note 16 (noting that compliance under FinCEN regulations as a money transmitter can place burdensome restrictions on Bitcoin and drive up the cost of transactions).

330. McGarvey, *supra* note 16.

331. Dion, *supra* note 28, at 197-98 (even outlawing Bitcoin will lead to a small group still using them for illicit transactions); Grinberg, *supra* note 11, at 206 (concluding that one general purpose for Bitcoin is to promote illicit transactions); *see also* Marian, *supra* note 100, at 44 (suggesting that regulation could facilitate tax evasion).

332. Marian, *supra* note 100, at 43-44 (showing that tax regulations are difficult, if not impossible, to apply to a completely anonymous currency unless voluntarily reported).

333. As of today, there are thirteen other DVCs that are gaining value and would certainly benefit from the same regulations applied to Bitcoin. Stephen Cauchi, *Bitcoin Faces Test of time, and Regulators*, SYDNEY MORNING HERALD (Jan. 25, 2014), <http://www.smh.com.au/business/digital-currencies-bitcoin-faces-test-of-time--and-regulators-20140124-31dt3.html>.

334. Marian, *supra* note 100, at 47.

335. *Id.*

336. SolidCoin, BBQCoin, Fairbrix, Geistgeld are among a few that have started and ended in relatively short periods. Steadman, *supra* note 23. The government would not

more than anyone else and prevent others from using them.³³⁷ This solution, however, is unreasonable because it requires buyouts of entire pools of currency, which is likely more expensive than outlaw enforcement measures.³³⁸ New DVCs will likely follow Bitcoin's pioneering model of gradual increases in supply as well, which further complicates this method of regulation.³³⁹ It also demonstrates an antagonistic stance by the United States, with respect to DVCs, without offering any sort of clear guidance on their legality.³⁴⁰

Overall, outlaw would reduce concerns over illicit uses and drive down demand for DVCs generally. Halting exchanges would reduce the risks for competing with the U.S. currency and would reduce illegitimate transactions by preventing conversion to U.S. dollars.³⁴¹ The United States government could maintain many of its current regulations, while using seized Bitcoins and other DVCs to assist in tracking down suspects in illicit transactions.³⁴² Development of its own, competing digital currency may be an additional measure to combat the rise in DVCs. These measures, when taken together, provide the most efficient and effective solution to dealing with DVCs.

IV. CONCLUSION

As technology progresses, there will be an increasing need for more advanced means of payment. However, longstanding governments and institutions will also go on. That is not to say that virtual currencies cannot exist. Many currently do, and to a practical effect, the dollar is a virtual currency via credit card and Paypal transactions.³⁴³ Even in Canada, there is a speculation of developing a national digital currency.³⁴⁴ The key difference between these sanctioned forms of currency and decentralized virtual currencies is that they all have a central authority that can be held accountable.

need to intervene until it is clear that these currencies gain a stronger market foothold.
Id.

337. Marian, *supra* note 100, at 47.

338. Even at Bitcoin's lowest value, for example, each coin was still worth six cents. Multiplied by all existing Bitcoins (21 million total) would cost around \$1.2 million. *Market Price (USD)*, BLOCKCHAIN, available at http://blockchain.info/charts/market-price?timespan=all&showDataPoints=false&daysAverageString=1&show_header=true&scale=0&address=; see also Grinberg, *supra* note 11, at 163.

339. Grinberg, *supra* note 11, at 163.

340. Marian, *supra* note 100, at 47.

341. *Id.* at 46 (noting that intervention at intermediaries may be an appropriate solution).

342. Brustein, *supra* note 248; Kaplanov, *supra* note 13, at 170-71.

343. Grinberg, *supra* note 11, at 168.

344. Greenwood, *supra* note 306.

The anonymous and decentralized features that are widely praised in Bitcoin³⁴⁵ are also the biggest problem with it. While the currency may have some legitimate purposes, it has gained its notoriety primarily from encouraging illicit transactions.³⁴⁶ The Silk Road bust has been among the biggest signs that this is the case.³⁴⁷ Other concerns relating to tax regulations and tax evasion show that Bitcoins are generating far more money than other currencies limited to local communities and video games.³⁴⁸ The government has not yet been able to determine the extent of that tax liability, let alone how to compel payment of those taxes.³⁴⁹

The most compelling reason that any government has to watch DVCs carefully, though, is that they threaten the effectiveness of central banking.³⁵⁰ The United States has made it clear that it maintains the ultimate authority over controlling the currency within its borders.³⁵¹ Unlike the *Napster case* and other decentralized file-sharing networks, competing currencies stand to undermine the value of U.S. currency and, by extension, the sovereignty of the United States.³⁵² This is why outlaw is the best approach to handling DVCs.

Finally, the best approach to enforce an outlaw is to eliminate access through intermediary businesses and exchanges.³⁵³ Coupling this with cases against continuing offenders will reduce the demand for Bitcoin and incentives to manufacture new DVCs.³⁵⁴ After removing these incentives to exchange DVCs, the United States could adapt its own form of digital currency to eliminate any remaining incentive to exchange them. The intentions of Bitcoin and its popularity have demonstrated a clear demand for virtual currencies and the United States should attempt to meet that demand in a way that still provides it with

345. Kaplanov, *supra* note 13, at 116.

346. Grinberg, *supra* note 11, at 206.

347. Again, five percent of all the existing coins were seized in commissions, notwithstanding the profits generated globally in drug sales. Complaint at 15, *United States v. Ulbricht*, No. 1:13cv6919 (S.D.N.Y. Oct. 2, 2013).

348. Layton & Roos, *supra* note 115; *see also* Ellis, *supra* note 110.

349. Thus far, the only plan is to provide materials to inform people of the income reporting requirements associated with Bitcoin. Marian, *supra* note 100, at 44.

350. Winter, *supra* note 175 (highlighting the shortcomings experienced by central banks when competing with DVCs).

351. 1884 Legal Tender Case, 110 U.S. 421, 444-45 (1884) (explaining how the government is able to issue notes as legal tender instead of the prior gold coin standard).

352. The Federal Reserve, as an entity created by the government and controlled by Congressional Acts, is able to maintain influence so long as there is demand for U.S. dollars; therefore, undermining the function of the Federal Reserve, by extension, undermines the U.S. government's monopoly on the currency. *THE FEDERAL RESERVE*, *supra* note 102; *Monopoly Power over Money*, *supra* note 162.

353. Marian, *supra* note 100, at 47; *see also* Swartout, *supra* note 292, at 505.

354. Swartout, *supra* note 292, at 505-06.

a degree of control.³⁵⁵ Although a monopoly on the currency is a Constitutional guarantee and an important enforcement tool, the United States must also remember that “with great power, comes great responsibility.”³⁵⁶

355. Greenwood, *supra* note 306 (showing how Canada intends to implement a digital currency with the same benefits of Bitcoin but with the security of government backing).

356. SPIDER-MAN (Columbia Pictures 2002); U.S. CONST. art. I, § 8, cl. 5-6.