

# **BITCOIN AND BEYOND: CURRENT AND FUTURE REGULATION OF VIRTUAL CURRENCIES**

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Bitcoin is a virtual currency transaction protocol. It also is a type of virtual currency. One of Bitcoin's unique features is that it is decentralized; it is not created or issued by a single person or entity. Rather, it is "mined" by miners that are issued bitcoins in exchange for solving complex math problems with special software. Bitcoins may be converted to government-issued legal tender (commonly referred to as fiat currency) or other types of virtual currency through an exchange, or they may be used to purchase goods and services from any of the tens of thousands of merchants who accept bitcoins for payment. The Bitcoin protocol enables the transfer of bitcoins and also can be used for other purposes, such as providing the infrastructure for smart contracts, escrow systems, smart property/title systems, and much more.

Many other virtual currencies exist. Some are centralized virtual currencies that are created and issued by a single entity. Some of these virtual currencies may be converted to fiat currency, but others may not. Many are "closed loop" virtual currencies that may only be used to obtain goods and services of the issuer.

Virtual currencies, such as Bitcoin, are not backed by a government entity or anything else. Such virtual currencies have value because they are a commonly accepted medium of exchange by a significant number of people. It is that acceptance that maintains their value. Other virtual currencies have intrinsic value because they represent a claim on a commodity, such as gold or silver.

The applicability of various regulations to virtual currency varies widely, depending upon the specific attributes of the virtual currency and how the currency is used. When used as currency, a virtual currency may be subject to state and federal currency transaction regulations. If a virtual currency is used as the basis of a security, such as an investment contract, it may be subject to regulation by the Securities and Exchange Commission ("SEC"). If virtual currency is backed by commodities, then it may be subject to regulation by the Commodities Futures Trading Commission

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(“CFTC”). A virtual currency may also be classified as property and subject to taxation as such by the Internal Revenue Service (“IRS”).

While several federal and state agencies have issued guidance on the application of existing regulations to virtual currency, few have issued legislation or promulgated rules to specifically address the regulation of Bitcoin or other virtual currencies. However, the law is sure to evolve. Little, if any, specific regulatory guidance exists with respect to smart contracts, escrow systems, or smart property/title systems implemented via Bitcoin (or other) virtual currency protocols.

Part I of this Article addresses the existing legal and regulatory framework for virtual currency. It discusses how the different attributes and uses of virtual currencies may impact the legal and regulatory treatment thereof. Part II of this Article addresses some of the seemingly inconsistent classifications of virtual currency as currency, security, and property by different federal and state agencies. It discusses: (i) the characteristics of certain virtual currencies (other than Bitcoin), (ii) the advanced capabilities of the Bitcoin protocol, such as providing infrastructure for smart contracts, escrow systems, and property/title systems, and (iii) some of the potential legal issues related thereto.

## I. EXISTING LEGAL AND REGULATORY FRAMEWORK

The primary public policy objectives that impact the regulation of virtual currencies are: (i) providing consumer protection, (ii) preventing money laundering, (iii) maintaining the safety and soundness of the financial system, and (iv) preventing tax evasion. The following is an overview of the existing legal and regulatory framework relevant to virtual currencies.

### A. *Federal Laws, Regulations, and Guidance*

#### 1. *Bank Secrecy Act Regulations*

##### a. *General Overview*

The Currency and Foreign Transactions Reporting Act of 1970 (commonly referred to as the “Bank Secrecy Act” or “BSA”) requires U.S. financial institutions to assist U.S. government agencies to detect and prevent money laundering. The Bank Secrecy Act’s implementing regulations<sup>1</sup> (“BSA Regulations”) establish extensive customer verification, recordkeeping, reporting, and other anti-money laundering requirements for financial institutions. Certain requirements of the BSA Regulations apply to all entities conducting business in the United States, such as: (i) the

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<sup>1</sup> 31 C.F.R. ch. X (2010).

requirement to report foreign bank accounts in excess of \$10,000 and (ii) the requirement to report cash or currency transactions in excess of \$10,000 that are conducted in one day by or on behalf of a person in connection with a trade or business.

Under the BSA Regulations, the term “financial institution” covers money services businesses (“MSBs”), which include, subject to certain exceptions, “[a] person<sup>2</sup> wherever located doing business, whether or not on a regular basis or as an organized or licensed business concern, wholly or in substantial part within the United States,” in one or more specified capacities, including in the capacity of a money transmitter.<sup>3</sup> A “money transmitter” is a person or entity that provides “money transmission services” or is any other person engaged in the transfer of funds, subject to certain exceptions discussed below.<sup>4</sup> “The term ‘money transmission services’ means ‘the *acceptance* of currency, funds, or other value that *substitutes for currency* from one person and the *transmission* of currency, funds, or other value that *substitutes for currency to another location or person* by any means.’”<sup>5</sup>

The BSA Regulations’ definition of money transmission services does not differentiate between real currencies and virtual currencies.<sup>6</sup>

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<sup>2</sup> For purposes of the BSA Regulations, “[p]erson” means “[a]n individual, a corporation, a partnership, a trust or estate, a joint stock company, an association, a syndicate, joint venture, or other unincorporated organization or group, an Indian Tribe (as that term is defined in the Indian Gaming Regulatory Act), and all entities cognizable as legal personalities.” 31 C.F.R. § 1010.100(mm) (2012).

<sup>3</sup> *Id.* § 1010.100(ff). Under the BSA Regulations, the term “money services business” also means, subject to certain exceptions, a person doing business in the U.S. in one or more of the following capacities: dealer in a foreign exchange, check casher, issuer or seller of traveler’s checks or money orders, provider of prepaid access, U.S. Postal Service, or a seller of prepaid access. *Id.* § 1010.100(ff)(1)–(8).

<sup>4</sup> *Id.* § 1010.100(ff)(5).

<sup>5</sup> *Id.* § 1010.100(ff)(5)(i)(A) (emphases added):

“Any means” includes, but is not limited to, through a financial agency or institution; a Federal Reserve Bank or other facility of one or more Federal Reserve Banks, the Board of Governors of the Federal Reserve System, or both; an electronic funds transfer network; or an informal value transfer system.

*Id.*

<sup>6</sup> Under the BSA Regulations, “currency” (also referred to as real currency) is defined as:

The coin and paper money of the United States or of any other country that is designated as legal tender and that circulates and is customarily used and accepted as a medium of exchange in the country of issuance. Currency includes U.S. silver certificates, U.S. notes and Federal Reserve notes. Currency also includes official foreign bank notes that are customarily used and accepted as a medium of exchange in a foreign country.

Therefore, if a person accepts any value that substitutes for real currency, such as Bitcoin, and transmits that value to another location or person, such person may qualify as a money transmitter under the BSA Regulations, unless the person qualifies for a limitation to, or an exclusion from, the BSA Regulations' definition of a money transmitter.<sup>7</sup>

b. *Anti-Money Laundering Program Requirements Under the BSA Regulations*

The BSA Regulations require MSBs and their agents to develop, implement, and maintain an effective written anti-money laundering (“AML”) program that is reasonably designed to prevent the MSB or agent from being used to facilitate money laundering and the financing of terrorist activities.<sup>8</sup> The AML program must “be commensurate with the risks posed by the location and size of, and the nature and volume of the financial services provided by the [MSB].”<sup>9</sup> At a minimum, the AML program must:

- (i) incorporate policies, procedures, and internal controls reasonably designed to assure compliance with the BSA Regulations, including, without limitation and to the extent applicable, provisions for verifying customer identity, filing reports, creating and retaining records, and responding to law enforcement requests;
- (ii) designate a person to assure day-to-day compliance with the AML program and the BSA Regulations, whose responsibilities will include assuring that: (a) the MSB properly files reports, and creates and retains records, in accordance with applicable requirements of the BSA Regulations; (b) the AML program is updated as necessary to reflect current requirements of the BSA Regulations and related guidance issued by the Department of the Treasury; and (c) the MSB provides appropriate training and education to its personnel in accordance with the BSA Regulations;
- (iii) provide education and/or training of appropriate personnel concerning their responsibilities under the AML program, including training in the detection of suspicious transactions to the extent that the MSB is

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*Id.* § 1010.100(m). See also *Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, DEPT. TREASURY FIN. CRIMES ENFORCEMENT NETWORK 1 (Mar. 18, 2013) [hereinafter FIN-2013-G001], available at [http://fincen.gov/statutes\\_regs/guidance/pdf/FIN-2013-G001.pdf](http://fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf).

<sup>7</sup> See FIN-2013-G001, *supra* note 6, at 2–3.

<sup>8</sup> 31 C.F.R. §§ 1010.100(t) & 1022.210(a), (c) (2010).

<sup>9</sup> *Id.* § 1022.210(b) (2010).

required to report such transactions under the BSA Regulations; and

- (iv) provide for independent review to monitor and maintain an adequate AML program commensurate with the risk of the financial services provided by the MSB.<sup>10</sup>

### c. *FinCEN Guidance*

On March 18, 2013, the Financial Crimes Enforcement Network (“FinCEN”), the federal regulatory agency responsible for enforcing compliance with the BSA Regulations, issued interpretive guidance (“VC Guidance”) to clarify the applicability of the BSA Regulations to persons creating, obtaining, distributing, exchanging, accepting, or transmitting virtual currencies.<sup>11</sup> The VC Guidance specifically addresses the regulatory treatment of “convertible virtual currency” and whether “users,” “exchangers,” and “administrators” of convertible virtual currencies are money transmitters, and therefore MSBs, under the BSA Regulations.<sup>12</sup>

FinCEN distinguishes between real currency and virtual currency, which it defines as “a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency . . . . [and] does not have legal tender status in any jurisdiction.”<sup>13</sup> The VC Guidance addresses a specific type of virtual currency, “convertible virtual currency,” which it defines as virtual currency that either has an equivalent value in real currency or acts as a substitute for real currency.<sup>14</sup> Whether a person engaged in virtual currency transactions as a money transmitter under the BSA Regulations depends, in part, on whether such transactions involved convertible virtual currency. FinCEN considers Bitcoin to be a convertible virtual currency.<sup>15</sup>

<sup>10</sup> *Id.* § 1022.210(d).

<sup>11</sup> See FIN-2013-G001, *supra* note 6.

<sup>12</sup> The VC Guidance addresses whether “users,” “exchangers,” and “administrators” of convertible virtual currencies are money transmitters, rather than other categories of MSBs, such as providers of prepaid access, sellers of prepaid access, or dealers in foreign exchange because such categories only apply to activities involving real currencies. FinCEN clarified that: (1) a person’s acceptance and/or transmission of convertible virtual currency cannot be characterized as providing or selling prepaid access because prepaid access is limited to real currencies and (2) a person must exchange the currency of two or more countries to be considered a dealer in foreign exchange. *Id.*; see also 31 CFR § 1010.100(ff).

<sup>13</sup> FIN-2013-G001, *supra* note 6.

<sup>14</sup> *Id.*

<sup>15</sup> See *Application of FinCEN’s Regulations to Virtual Currency Mining Operations*, DEP’T TREASURY FIN. CRIMES ENFORCEMENT NETWORK (Jan. 30,

In the VC Guidance, FinCEN defines three categories of persons engaged in virtual currency transactions: “users,” “administrators,” and “exchangers.” A “user” is defined as a person that obtains virtual currency to purchase goods or services on the user’s own behalf.<sup>16</sup> An “exchanger” is defined as a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency.<sup>17</sup> An “administrator” is defined as a person engaged as a business in issuing (putting into circulation) a virtual currency, who also has the authority to redeem (to withdraw from circulation) such virtual currency.<sup>18</sup>

FinCEN clarifies that a “user” that obtains convertible virtual currency by, for example, earning, harvesting, mining, creating, auto-generating, manufacturing, or purchasing it, and uses the convertible virtual currency solely to purchase real or virtual goods or services is not a money transmitter, and therefore not an MSB, under the BSA Regulations.<sup>19</sup> In contrast, an administrator or exchanger that (i) accepts and transmits convertible virtual currency or (ii) buys or sells convertible virtual currency, for any reason, is a money transmitter and therefore an MSB, unless the person qualifies for a limitation to, or an exemption from, the definition of a money transmitter.<sup>20</sup>

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

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> FIN-2013-G001, *supra* note 6.

<sup>20</sup> *Id.* at 3. Under the BSA Regulations, the term “money transmitter” does not include a person that only:

- (A) Provides the delivery, communication, or network access services used by a money transmitter to support money transmission services;
- (B) [a]cts as a payment processor to facilitate the purchase of, or payment of a bill for, a good or service through a clearance and settlement system by agreement with the creditor or seller;
- (C) [o]perates a clearance and settlement system or otherwise acts as an intermediary solely between BSA regulated institutions . . . ;
- (D) [p]hysically transports currency, other monetary instruments, other commercial paper, or other value that substitutes for currency as a person primarily engaged in such business, such as an armored car, from one person to the same person at another location or to an account belonging to the same person at a financial institution, provided that the person engaged in physical transportation has no more than a custodial interest in the currency, other monetary instruments, other commercial paper, or other value at any point during the transportation;
- (E) [p]rovides prepaid access; or
- (F) [a]ccepts and transmits funds only integral to the sale of goods or

i. *FinCEN Administrative Rulings*

Since publishing the VC Guidance, FinCEN has issued three administrative rulings<sup>21</sup> to further clarify the regulatory treatment of certain Bitcoin activity under the BSA Regulations.<sup>22</sup>

(1) *Ruling 1—Certain Miners of Convertible Virtual Currency Are Not MSBs*

In Ruling 1, FinCEN concludes that a miner of Bitcoin is a user of Bitcoin, and therefore not an MSB under the BSA Regulations to the extent the miner uses his, her, or its bitcoins:

(a) [T]o pay for the purchase of goods or services, pay debts it has previously incurred (including debts to its owner(s)), or make distributions to owners; or (b) to purchase real currency or another convertible virtual currency, so long as the real currency or other convertible virtual currency is used solely in order to make payments . . . or for [the miner’s] own investment purposes.<sup>23</sup>

FinCEN explains that:

What is material to the conclusion that a person is not an MSB is not the mechanism by which a person obtains the convertible virtual currency [such as earning, harvesting, mining, creating, auto-generating, manufacturing, or purchasing], but what the person uses the convertible virtual currency for, and for whose benefit.<sup>24</sup>

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the provision of services, other than money transmission services, by the person who is accepting and transmitting the funds.

31 C.F.R. § 1010.100(ff)(5)(ii) (2012). It is important to note that even if a person does not qualify as a “money transmitter” under the BSA Regulations, such a person may still be deemed to be an MSB under the BSA Regulations if it engages in other types of activities that are included in the definition of an MSB under the BSA Regulations.

<sup>21</sup> *Application of FinCEN’s Regulations to Virtual Currency Software Development and Certain Investment Activity*, DEP’T TREASURY FIN. CRIMES ENFORCEMENT NETWORK (Jan. 30, 2014) [hereinafter FIN-2014-R002], available at [http://www.fincen.gov/news\\_room/rp/rulings/pdf/FIN-2014-R002.pdf](http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R002.pdf); *Application of Money Services Business Regulations to the Rental of Computer Systems for Mining Virtual Currency*, DEP’T TREASURY FIN. CRIMES ENFORCEMENT NETWORK (Apr. 29, 2014) [hereinafter FIN-2014-R007], available at [http://www.fincen.gov/news\\_room/rp/rulings/pdf/FIN-2014-R007.pdf](http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R007.pdf); FIN-2013-G001, *supra* note 6.

<sup>22</sup> FinCEN has not addressed the regulatory treatment of specific convertible virtual currencies, other than Bitcoin.

<sup>23</sup> FIN-2014-R001, *supra* note 16.

<sup>24</sup> *Id.*

Ruling 1 refines the definition of “user” provided in the VC Guidance to emphasize that a user is a person that obtains virtual currency to purchase goods or services *on the user’s own behalf*:

To the extent that a user mines Bitcoin and uses the Bitcoin solely for the user’s own purposes and not for the benefit of another, the user is *not* an MSB under [the BSA], because these activities involve neither “acceptance” nor “transmission” of the convertible virtual currency and are not the transmission of funds within the meaning of the [BSA Regulations].<sup>25</sup>

Ruling 1 confirms that a user that only engages in virtual currency mining on its own behalf is not an MSB regardless of whether the user is an individual or a corporation, or “whether the user is purchasing goods or services for the user’s own use, paying debts previously incurred in the ordinary course of business, or (in the case of a corporate user) making distributions to shareholders.”<sup>26</sup> Ultimately, if the user’s activities, in and of themselves, do not constitute the acceptance and transmission of currency, funds, or the value of funds, the activities will not be money transmission services under the BSA Regulations, and therefore the user will not be an MSB.

FinCEN also clarifies that a user of virtual currency that converts Bitcoin into real currency or another convertible virtual currency will not be deemed an exchanger of convertible virtual currency based upon such conversion, as long as the conversion is “solely for the user’s own purposes and not as a business service performed for the benefit of another.”<sup>27</sup> Accordingly, a person that converts his, her, or its own convertible virtual currency into real currency or another virtual currency for his, her, or its own purposes will not be deemed a money transmitter and therefore will not be an MSB based upon such conversion. FinCEN cautions, however, that any transfer of convertible virtual currency to third parties at the request of a seller, creditor, owner, or counterparty to the transaction may constitute money transmission services under the BSA Regulations. Thus, a user that pays bitcoins to a third party for goods or services at the direction of a seller may be an MSB under the BSA Regulations, unless the user qualifies for an exemption.

(2) *Ruling 2—Certain Virtual Currency Software Providers and Investors Are Not MSBs*

In the second administrative ruling issued by FinCEN concerning virtual currency (“Ruling 2”), FinCEN addresses whether the following

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<sup>25</sup> *Id.*

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

<sup>27</sup> *Id.*



activities would make a person a money transmitter, and therefore an MSB, under the BSA Regulations: (i) production and distribution of software to facilitate the purchase of virtual currency and (ii) periodic investment in convertible virtual currency.

Ruling 2 confirms that “[t]he production and distribution of software, in and of itself, does not constitute acceptance and transmission of value, even if the purpose of the software is to facilitate the sale of virtual currency.”<sup>28</sup> However, if a software provider engages in other activities or provides other activities in addition to producing and distributing software, such as exchanging convertible virtual currency for real currency, the software provider may be deemed to be a money transmitter, and therefore an MSB, under the BSA Regulations, unless an exemption applies.

Ruling 2 confirms that “to the extent that [a person] limits [his or her] activities strictly to investing in virtual currency for its own account, [he or she] is not acting as a money transmitter and is not an MSB under [the BSA].”<sup>29</sup> As in Ruling 1, FinCEN emphasizes that “[w]hat is material to the conclusion that a person is not an MSB is not the mechanism by which [that] person obtains the convertible virtual currency, but what the person uses the convertible virtual currency for, and for whose benefit.”<sup>30</sup> FinCEN reiterates that, if the activities do not constitute accepting and transmitting currency, funds, or the value of funds, the activities are not money transmission services under the BSA Regulations and therefore are not subject to FinCEN’s registration, reporting, and recordkeeping regulations for MSBs.

Ruling 2 provides that to the extent an entity “purchases and sells convertible virtual currency, paying and receiving the equivalent value in currency of legal tender to and from counterparties, all exclusively as investments for its own account, it is not engaged in the business of exchanging convertible virtual currency for currency of legal tender for other persons.”<sup>31</sup> FinCEN explains that when a person invests in a convertible virtual currency for its own account, and when it realizes the value of its investment, it is acting as a user of that convertible virtual currency within the meaning of the VC Guidance.<sup>32</sup>

### (3) *Ruling 3—Lessors of Computer Systems for Mining Virtual Currency Are Not MSBs*

FinCEN’s third administrative ruling concerning virtual currency (Ruling 3) confirms that renting computer systems for mining virtual currency would not make a person an administrator of virtual currency or a

<sup>28</sup> FIN-2014-R002, *supra* note 21.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

money transmitter under the BSA Regulations.<sup>33</sup> FinCEN explains that the rental of computer systems to third parties is not activity covered by the BSA Regulations because the BSA Regulations specifically exempt from the definition of a “money transmitter” persons that only “[provide] the delivery, communication, or network access services used by a money transmitter to support money transmission services.”<sup>34</sup>

Ultimately, whether a person is a money transmitter under the BSA Regulations is a matter of facts and circumstances.<sup>35</sup> Ruling 1, Ruling 2, and Ruling 3 emphasize that a material aspect of such analysis for users of convertible virtual currency is what the person uses the convertible virtual currency for, and for whose benefit. If a person mines, uses, obtains, distributes, exchanges, accepts, or transmits convertible virtual currency, such as Bitcoin, it may be a money transmitter, and therefore an MSB, under the BSA Regulations and subject to FinCEN’s registration, reporting, and recordkeeping requirements for MSBs.

*d. Potential Penalties for Violations of the BSA Regulations*

The Secretary of the Treasury may assess civil penalties on any person and any directors, officers, or employees who willfully participate in any negligent or willful violation of any reporting, recordkeeping, or other requirements mandated by the BSA Regulations.<sup>36</sup> Depending on the nature of the violation, civil penalties may range from \$500 for negligent violations up to the amount of the currency or monetary instruments transported, mailed, or shipped, less any amount forfeited, for certain willful violations.<sup>37</sup> Furthermore,

Any currency or other monetary instruments which are in the process of any transportation with respect to which a report is required under [Section] 1010.340 [of the BSA Regulations] are subject to seizure and forfeiture to the United States if such report has not been filed as required . . . or contains material omissions or misstatements.<sup>38</sup>

Any person convicted of a willful violation of the BSA Regulations may be fined up to \$500,000 or be imprisoned up to ten years, or both.<sup>39</sup> The BSA Regulations generally assess criminal penalties against persons facilitating

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<sup>33</sup> FIN-2014-R007, *supra* note 22.

<sup>34</sup> *Id.*; 31 C.F.R. § 1010.100(ff)(5)(ii)(A).

<sup>35</sup> 31 CFR § 1010.100(ff)(5)(ii).

<sup>36</sup> *Id.* § 1010.820.

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

<sup>38</sup> *Id.* § 1010.830.

<sup>39</sup> *Id.* § 1010.840.

illicit or fraudulent activity (and not against persons merely engaging in money transmission without registering as an MSB with FinCEN).

## *2. Penalties for Money Laundering under Federal Law*

In addition to the penalties that may be imposed for violations of the BSA Regulations, businesses and individuals may be subject to civil and criminal liability for violations of various state and federal anti-money laundering and terrorist financing laws. Sections 1956 and 1957 of the federal Money Laundering Control Act of 1986, codified at 18 U.S.C. §§ 1956 and 1957, are the primary federal criminal money laundering statutes. In general, these provisions prohibit certain financial transactions and activity designed to conceal or disguise the source, nature, location, ownership, or control of funds derived from unlawful activity.

“Money laundering is the criminal practice of processing ill-gotten gains, or ‘dirty’ money, through a series of transactions” to clean such funds “so they appear to be proceeds from legal activities.”<sup>40</sup> Money laundering generally does not involve currency at every stage of the laundering process.<sup>41</sup> Although money laundering is a diverse and often complex process, it basically involves three independent steps that may occur simultaneously: placement, layering, and integration.<sup>42</sup> “The first and most vulnerable stage of laundering money is placement,” which involves “introduce[ing] the unlawful proceeds into the financial system without attracting the attention of financial institutions or law enforcement” by “structuring currency deposits in amounts to evade reporting requirements or commingling currency deposits of legal and illegal enterprises.”<sup>43</sup> “The second stage of the money laundering process is layering, which involves moving funds around the financial system, often in a complex series of transactions to create confusion and complicate the paper trail.”<sup>44</sup> “The ultimate goal of the money laundering process is integration,” which “create[s] the appearance of legality through additional transactions” that “further shield the criminal from” being connected to the funds “by providing a plausible explanation for the source of the funds.”<sup>45</sup>

Understanding the requirements of the BSA Regulations and criminal money laundering statutes, such as §§ 1956 and 1957, is critical for businesses and individuals engaged in Bitcoin or other virtual currency activities. Criminals use legitimate businesses to disguise the ownership and origin of illicit funds and to inject such funds into the financial system. Any

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<sup>40</sup> FED. FIN. INSTS. EXAMINATION COUNCIL, BANK SECRECY ACT/ANTI-MONEY LAUNDERING EXAMINATION MANUAL 12 (2010).

<sup>41</sup> *See id.*

<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

business that is used by criminals this way, even if unintentionally, may be subject to criminal liability and civil penalties.<sup>46</sup> Bitcoin exchanges and other virtual currency businesses have attracted criminals seeking channels for introducing and moving funds derived from criminal activity into and through the financial system.<sup>47</sup> As a result, some of these businesses, including their principals, have been charged with money laundering crimes under §§ 1956 and 1957.<sup>48</sup> Such charges may result in significant civil and criminal fines and imprisonment.

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<sup>46</sup> See STEVEN MARK LEVY, FEDERAL MONEY LAUNDERING REGULATION: BANKING, CORPORATE AND SECURITIES COMPLIANCE § 17.02 (2014).

<sup>47</sup> See Jennifer Shasky Calvery, Dir., Dep't Treasury Fin. Crime Enforcement Network, Prepared Remarks at the Association of Certified Anti-Money Laundering Specialists (ACAMS) 19th Annual International AML and Financial Crime Conference (Mar. 1, 2014), *available at* [http://www.fincen.gov/news\\_room/speech/html/20140318.html](http://www.fincen.gov/news_room/speech/html/20140318.html):

Because any financial institution, payment system, or medium of exchange has the potential to be exploited for money laundering, fighting such illicit use requires consistent regulation across the financial system. Virtual currency is not different from other financial products and services in this regard. What is important is that financial institutions that deal in virtual currency put effective anti-money laundering and counter terrorist financing (AML/CFT) controls in place to harden themselves from becoming the targets of illicit actors that would exploit any identified vulnerabilities. Indeed, the idea that illicit actors might exploit the vulnerabilities of virtual currency to launder money is not merely theoretical. We have seen both centralized and decentralized virtual currencies exploited by illicit actors.

*Id.*

<sup>48</sup> See, e.g., Sealed Complaint, United States v. Faiella, No. 1:14-cr-00243, 2014 WL 4100897 (S.D.N.Y. Jan. 24, 2014) (seeking criminal charges for engaging in a scheme to sell over one million dollars in bitcoins to users of Silk Road, the underground website that enabled its users to buy and sell illegal drugs anonymously); see also Press Release, U.S. Attorney's Office for the S. Dist. of N.Y., Manhattan U.S. Attorney Announces Charges Against Bitcoin Exchangers, Including CEO of Bitcoin Exchange Company, for Scheme to Sell and Launder over \$1 Million in Bitcoins Related to Silk Road Drug Trafficking (Jan. 27, 2014):

"As alleged, Robert Faiella and Charlie Shrem schemed to sell over \$1 million in [b]itcoins to criminals bent on trafficking narcotics on the dark web drug site, Silk Road. Truly innovative business models don't need to resort to old-fashioned law-breaking, and when Bitcoins, like any traditional currency, are laundered and used to fuel criminal activity, law enforcement has no choice but to act. We will aggressively pursue those who would coopt new forms of currency for illicit purposes."

*Id.*; see also, e.g., Sealed Indictment, United States v. Kats, No. 1:13-cr-00368 (S.D.N.Y. filed May 20, 2013) (seeking criminal charges for money laundering and operating an unlicensed money transmitting business); Press Release, U.S.

a. *Section 1956*

Section 1956 establishes three money-laundering offenses for which a person may be fined and/or imprisoned. In general, it prohibits knowing participation in any type of financial transaction involving unlawful proceeds when the transaction is designed to conceal or disguise the source of the funds. Under Section 1956, a defendant's "knowledge" or "belief" that a financial transaction involves proceeds from some form of illegal activity may be inferred from evidence of the defendant's deliberate indifference or willful blindness.<sup>49</sup> Courts have found that a defendant's knowledge may be proven in situations where the defendant's suspicions are aroused, but further inquiry is deliberately omitted because the defendant wishes to remain ignorant of the true facts.<sup>50</sup> Thus, a person may not escape liability under Section 1956 by pleading a lack of knowledge that a financial transaction involved proceeds of unlawful activity if such person "strongly suspect[ed] [he or she] [was] involved with criminal dealings but deliberately avoid[ed] learning more exact information about the nature or extent of those dealings."<sup>51</sup> The three money laundering offenses established by Section 1956 are discussed in greater detail below.

i. *Financial Transaction Offenses*

Section 1956(a)(1) provides that:

Whoever, knowing that the property involved in a financial transaction represents the proceeds of some form of unlawful activity, conducts or attempts to conduct such a financial transaction which in fact involves the proceeds of specified unlawful activity (A)(i) with the intent to promote the carrying on of specified unlawful activity . . . or (B) knowing that the transaction is designed in whole or in part— (i) to conceal or disguise the nature, the location, the source, the ownership, or the control of the proceeds of

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Dep't of Justice, *One of the World's Largest Digital Currency Companies and Seven of Its Principals and Employees Charged in Manhattan Federal Court with Running Alleged \$6 Billion Money Laundering Scheme* (May 28, 2013), available at <http://www.justice.gov/opa/pr/2013/May/13-crm-608.html>.

<sup>49</sup> BLACK'S LAW DICTIONARY 842 (9th ed. 2009) (defining "deliberate indifference" as "the careful preservation of one's ignorance despite awareness of circumstances that would put a reasonable person on notice of a fact essential to a crime"); *id.* at 1737 (defining "willful blindness" as the "deliberate avoidance of knowledge of a crime, esp. by failing to make a reasonable inquiry about suspected wrongdoing despite being aware that it is highly probable"); see also LEVY, *supra* note 47, §§ 18.11 & 20.08.

<sup>50</sup> See *United States v. Murray*, 154 Fed. App. 740 (11th Cir. 2005).

<sup>51</sup> *United States v. Craig*, 178 F.3d 891, 896 (7th Cir. 1999) (quoting *United States v. Rodriguez*, 929 F.2d 1224, 1227 (7th Cir. 1991)).

specified unlawful activity; or (ii) to avoid a transaction reporting requirement under State or Federal law . . .

may be subject to a fine and/or imprisonment.<sup>52</sup>

ii. *International Transmission or Transportation Offenses*

Section 1956(a)(2) provides that:

Whoever transports, transmits, or transfers, or attempts to transport, transmit, or transfer a monetary instrument or funds from a place in the United States to or through a place outside the United States or to a place in the United States from or through a place outside the United States— (A) with the intent to promote the carrying on of specified unlawful activity; or (B) knowing that the monetary instrument or funds involved in the transportation, transmission, or transfer represent the proceeds of some form of unlawful activity and knowing that such transportation, transmission, or transfer is designed in whole or in part— (i) to conceal or disguise the nature, the location, the source, the ownership, or the control of the proceeds of specified unlawful activity; or (ii) to avoid a transaction reporting requirement under State or Federal law . . .

may be subject to a fine and/or imprisonment.<sup>53</sup>

iii. *“Sting” Offenses*

Section 1956(a)(3) is a variation of the financial transaction offense described in subsection (1) above, but, unlike Section 1956(a)(1), it does not require that the transaction or attempted transaction actually involve “the proceeds of specified unlawful activity.”<sup>54</sup> This offense was added in 1988 to facilitate money laundering convictions based upon evidence gathered during undercover “sting” operations in which law enforcement officials dupe the offender into believing the agent is using the proceeds from a criminal source to promote a predicate offense when in fact the funds are government bait money.<sup>55</sup> Specifically, Section 1956(a)(3) provides that:

Whoever, with the intent— (A) to promote the carrying on of specified unlawful activity; (B) to conceal or disguise

<sup>52</sup> 18 U.S.C. § 1956(a)(1) (2012).

<sup>53</sup> *Id.* § 1956(a)(2).

<sup>54</sup> *See id.* §§ 1956(a)(1), (a)(3).

<sup>55</sup> *See* LEVY, *supra* note 47, at § 20.01.

the nature, location, source, ownership, or control of property believed to be the proceeds of specified unlawful activity; or (C) to avoid a transaction reporting requirement under State or Federal law, conducts or attempts to conduct a financial transaction involving property represented to be the proceeds of specified unlawful activity, or property used to conduct or facilitate specified unlawful activity . . .

may be subject to a fine and/or imprisonment.<sup>56</sup> Thus, proof that the proceeds of the transaction or attempted transaction were in fact derived from specified unlawful activity is not required for conviction of this offense.

Accordingly, under Section 1956, a person or business transacting with Bitcoin or other virtual currency may be subject to a fine, imprisonment, or both if that party exchanges bitcoins for real currency that it knows involves the proceeds of unlawful activity (such as organized crime, drug or human trafficking, sexual exploitation of children, or financial misconduct) with the intent to promote or further the unlawful activity or with knowledge that the transaction was designed in whole or in part to conceal the nature, location, source, ownership, or control of the proceeds of the unlawful activity.

#### b. *Section 1957*

In addition to the money laundering crimes under Section 1956, Section 1957 provides that engaging in a monetary transaction in property derived from specified unlawful activity is a crime.<sup>57</sup> Unlike Section 1956, Section 1957 does not require criminal intent to promote unlawful activity or actual knowledge that the transaction is designed to conceal or disguise funds or avoid a reporting requirement.<sup>58</sup> Rather, Section 1957 punishes the mere deposit, withdrawal, transfer, or exchange through a financial institution of funds in excess of \$10,000 with knowledge that the funds are derived from specified unlawful activity,<sup>59</sup> and, like Section 1956, knowledge may be inferred from evidence of the defendant's deliberate indifference or willful blindness.<sup>60</sup> Specifically, Section 1957 provides that

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<sup>56</sup> 18 U.S.C. § 1956(a)(3).

<sup>57</sup> *See id.* § 1957.

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> *See United States v. Campbell*, 977 F.2d 854, 857 (4th Cir. 1992) (holding that real estate agent who assisted drug dealer in the purchase of a house can be convicted under Section 1957 if she was willfully blind to the fact that the funds were the proceeds of criminal activity); *see also United States v. Wynn*, 61 F.3d 921, 927 (D.C. Cir. 1995) (holding that owner of expensive clothing store knew or was willfully blind to the fact that cash purchases totaling hundreds of thousands of dollars in small bills by notorious drug dealers involved criminally derived property); *see also LEVY, supra* note 47, at § 21.09. However, a mere

“[w]hoever . . . knowingly engages or attempts to engage in a monetary transaction<sup>61</sup> in criminally derived property<sup>62</sup> of a value greater than \$10,000 and is derived from specified unlawful activity”<sup>63</sup> may be subject to a fine and/or imprisonment.<sup>64</sup> Thus, Section 1957 is directed not only at the person who is the source of the illicit funds, such as a drug trafficker who deposits drug proceeds in a bank, but also third parties (bankers, real estate agents, car salesmen, and others) who facilitate the disbursement, receipt, or spending of such criminally derived funds.

*c. Potential Penalties for Violations of Section 1956 or Section 1957*

Section 1956 and Section 1957 prescribe civil and criminal penalties for violations of the BSA Regulations and authorize seizure and forfeiture of cash and other property derived from criminal activity.<sup>65</sup> A person convicted under Section 1956 may be fined up to \$500,000 or twice the value of the property involved in the transaction, whichever is greater, or sentenced up to 20 years in prison, or both.<sup>66</sup> A person convicted under Section 1957 may be fined up to \$500,000 or twice the value of the

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showing of negligence, or that defendant was reckless or foolish in failing to recognize the facts, should be insufficient to support a finding of knowledge. *See* Campbell, 977 F.2d at 857 (stating a defendant “cannot be convicted on what she objectively should have known”); *see also* United States v. Gabriele, 63 F.3d 61, 66 (1st Cir. 1995) (stating the knowledge element is not satisfied merely by evidence that defendant “might have known,” “should have known,” or “could have known”); LEVY, *supra* note 47, at § 21.09.

<sup>61</sup> 18 U.S.C. § 1957(f)(1):

“[M]onetary transaction” means the deposit, withdrawal, transfer, or exchange, in or affecting interstate or foreign commerce, of funds or a monetary instrument (as defined in [Section 1956]) by, through, or to a financial institution (as defined in [Section 1956]), including any transaction that would be a financial transaction under [Section 1956], but such term does not include any transaction necessary to preserve a person’s right to representation as guaranteed by the sixth amendment to the Constitution.

<sup>62</sup> *Id.* § 1957(f)(2) (stating “criminally derived property” means “any property constituting, or derived from, proceeds obtained from a criminal offense”).

<sup>63</sup> *See id.* § 1956(c)(7) (stating “specified unlawful activity” includes a long list of activities that violate federal and/or state law, including organized crime, murder, kidnapping, robbery, drug or human trafficking, or sexual exploitation of children).

<sup>64</sup> *Id.* § 1957.

<sup>65</sup> *Id.* §§ 1956, 1957.

<sup>66</sup> *Id.* §§ 1956(a)(1)–(3) & 1956(b).



property involved in the transaction, whichever is greater, or sentenced up to ten years in prison, or both.<sup>67</sup>

Businesses and individuals engaged in virtual currency transactions should make a concerted effort to understand the nature and purposes for which others are using their products and services in order to prevent them from being used by bad actors to facilitate money laundering or the financing of terrorist activities.

### 3. Securities and Exchange Commission Investor Alerts

The SEC's mission is "to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation."<sup>68</sup> As part of this mission, the SEC periodically issues alerts to warn investors about fraudulent investment schemes and other investment risks.<sup>69</sup> In response to the rising use of virtual currencies, the SEC issued several alerts to inform investors of the potential risks of investing in Bitcoin and other virtual currency enterprises.<sup>70</sup> The SEC described Bitcoin as "a decentralized, peer-to-peer virtual currency," a "new product, technology, or innovation," and a "high-risk investment opportunit[y]," and also noted that the IRS treats Bitcoin as property for federal tax purposes.<sup>71</sup> Regardless of how Bitcoin and other virtual currencies are characterized, the SEC emphasized that

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<sup>67</sup> *Id.* § 1957(b).

<sup>68</sup> *The Investor's Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation*, SEC, <http://www.sec.gov/about/whatwedo.shtml> (last modified June 10, 2013).

<sup>69</sup> *See Investor Alerts and Bulletins*, SEC, <http://www.sec.gov/investor/alerts> (last visited Nov. 16, 2013).

<sup>70</sup> *See* SEC Office of Investor Educ. and Advocacy, *Investor Alert: Ponzi Schemes Using Virtual Currencies*, SEC, [http://www.sec.gov/investor/alerts/ia\\_virtualcurrencies.pdf](http://www.sec.gov/investor/alerts/ia_virtualcurrencies.pdf) (last visited Nov. 16, 2014); SEC Office of Investor Educ. and Advocacy, *Investor Alert: Bitcoin and Other Virtual Currency-related Investments*, SEC (May 7, 2014), <http://investor.gov/news-alerts/investor-alerts/investor-alert-bitcoin-other-virtual-currency-related-investments#.VGj1nVfF9W0> [hereinafter *Investor Alert: Bitcoin*]; *see also Bitcoin: More Than a Bit Risky*, FINRA, <http://www.finra.org/Investors/ProtectYourself/InvestorAlerts/FraudsAndScams/P456458> (last updated May 7, 2014); *Consumer Advisory: Risks to Consumers Posed by Virtual Currencies*, CFPB (Aug. 2014), [http://files.consumerfinance.gov/f/201408\\_cfpb\\_consumer-advisory\\_virtual-currencies.pdf](http://files.consumerfinance.gov/f/201408_cfpb_consumer-advisory_virtual-currencies.pdf); Conference of State Bank Supervisors & N. Am. Sec. Adm'rs Ass'n, *Model State Consumer and Investor Guidance on Virtual Currency*, TEX. DEP'T BANKING (Apr. 23, 2014), <http://www.dob.texas.gov/public/uploads/files/consumer-information/csbsvirtualcurrency.pdf>.

<sup>71</sup> *Investor Alert: Bitcoin*, *supra* note 71.

Bitcoin and other virtual currency investment schemes may present unique and heightened risks for fraud.<sup>72</sup>

Specifically, the SEC warns investors to consider the following risks when evaluating investments involving Bitcoin: (i) such investments are not insured like many securities accounts and bank accounts that are often insured by the Securities Investor Protection Corporation and the Federal Deposit Insurance Corporation (FDIC), respectively; (ii) such investments have a history of volatility; (iii) federal, state, or foreign governments may restrict the use and exchange of Bitcoin; (iv) Bitcoin may be stolen by hackers and Bitcoin exchanges may stop operating or permanently shut down due to fraud, technical glitches, hackers, or malware; and (v) Bitcoin does not have an established track record of credibility and trust.<sup>73</sup>

A recent case, *SEC v. Shavers*, highlights in its complaint some of the risks of buying Bitcoin-denominated investments.<sup>74</sup> In *Shavers*, the SEC charged the organizer of an alleged Ponzi scheme involving Bitcoin with defrauding investors.<sup>75</sup> While the SEC investigates and prosecutes many Ponzi scheme cases each year, this case is notable for the use of Bitcoin as the investment vehicle. According to the SEC, Ponzi scheme operators often lure potential investors by claiming to have a tie to a new and emerging technology.<sup>76</sup> Even though Bitcoin is not legal tender, Andrew M. Calamari of the SEC's New York Regional Office confirmed that "[f]raudsters are not beyond the reach of the SEC just because they use Bitcoin or another virtual currency to mislead investors and violate the federal securities laws."<sup>77</sup> If Bitcoin and other virtual currencies continue to gain popularity as mediums of exchange and investment opportunities, the potential for fraudulent investment schemes involving such virtual currencies will increase as well. If so, the SEC and other regulators will likely take further action to provide additional consumer protections and prosecute bad actors.<sup>78</sup>

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<sup>72</sup> *Id.*

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

<sup>74</sup> Complaint, *SEC v. Shavers*, No. 4:13-cv-416, 2014 WL 4652121 (E.D. Tex. Jul. 23, 2013).

<sup>75</sup> *Id.* at \*36 & \*39; *see also* Press Release, Securities Exchange Commission, SEC Charges Texas Man with Running Bitcoin-Denominated Ponzi Scheme (Jul. 23, 2013), *available at* <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539730583#.VGAPFbHnbDc>.

<sup>76</sup> SEC Charges Texas Man, *supra* note 76.

<sup>77</sup> *Id.*

<sup>78</sup> Several states have also issued alerts to warn investors of the risks associated with virtual currencies. *See* Press Release, Tex. State Sec. Bd., Texas Securities Commissioner Warns About Risks Associated with Investments Tied to Digital Currencies (Feb. 25, 2014),

Shavers moved to dismiss the SEC's complaint against his enterprise, Bitcoin Savings & Trust, arguing that the SEC had no authority to bring the action.<sup>79</sup> According to Shavers, the bitcoins linked to his website were not securities because "Bitcoin is not money, and is not part of anything regulated by the United States."<sup>80</sup> The SEC responded that the investments were both contracts and notes, and therefore were securities that can be regulated.<sup>81</sup> Judge Amos Mazzant of U.S. District Court in the Eastern Division of Texas disagreed with Mr. Shavers' arguments and ruled in favor of the SEC on August 6, 2013, writing, "[i]t is clear that Bitcoin can be used as money"<sup>82</sup> and "[t]he court finds that the [Bitcoin Savings & Trust] investments meet the definition of investment contract, and as such are securities."<sup>83</sup> So at least for SEC enforcement purposes, Bitcoin may be deemed a security.

#### 4. Internal Revenue Service Guidance

The IRS issued its first major ruling on the U.S. federal tax implications of transactions in, or transactions that use, Bitcoin and other

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[http://www.ssb.state.tx.us/News/Press\\_Release/02-25-14\\_press.php](http://www.ssb.state.tx.us/News/Press_Release/02-25-14_press.php); Investor Alert, Ala. Sec. Comm'n, Use of Bitcoins are HIGH RISK with Minimal Protection for Consumers - Largest Bitcoin Exchange Experiences Significant Rise in Complaints (Feb. 25, 2014), <http://www.asc.state.al.us/News/2014%20News/2-25-14%20Investor%20Alert%20-%20Bitcoins.pdf>. In addition, on March 10, 2014, the Texas Securities Commissioner entered an emergency cease and desist order against a Texas oil and gas exploration company that offered working interests in wells for sale to the public in exchange for Bitcoins. The Texas Securities Commissioner concluded, among other things, that such investments are "securities" under the Texas Securities Act that had not been registered and that the company made offers that contained a statement that is materially misleading or otherwise likely to deceive the public. Tex. State Sec. Bd., Order No. ENF-14-CDO-1731, Balanced Energy, LLC Emergency Cease and Desist Order (2014).

<sup>79</sup> Defendant's Motion for Reconsideration of Court Opinion Doc 23, SEC v. Shavers, No. 4:13-Civ-416 2014 WL 2926053, at \*10-\*12; *see also* Defendant's Answer to Complaint, SEC v. Shavers, No. 4:13cv416, at \*3 (E.D. Tex. Jul. 24, 2014).

<sup>80</sup> Memorandum Opinion Regarding the Court's Subject Matter Jurisdiction, SEC v. Shavers, No. 413-CV-416, 2013 WL 4028182, at \*2 (E.D. Tex. Aug. 6, 2013).

<sup>81</sup> Plaintiff's Response In Opposition To Defendants' Motion For Reconsideration of Court Opinion Doc 23 Regarding Subject Matter Jurisdiction and Renewed Rule 12(b)(1) Motion, SEC v. Shavers, No. 413-CV-416, 2014 WL -----, at \*5-\*6 & \*11 (E.D. Tex. Jun. 18, 2014).

<sup>82</sup> Memorandum Opinion, *supra* note 81, at \*3-\*4.

<sup>83</sup> *Id.*

convertible virtual currencies.<sup>84</sup> As with FinCEN's guidance, the IRS guidance relates to convertible virtual currencies.<sup>85</sup>

One of the most significant pronouncements of the notice is that the IRS determined that virtual currency is treated as property for U.S. federal tax purposes.<sup>86</sup> Therefore, general tax principles that apply to property transactions also apply to transactions using virtual currency. The notice indicates that:

“[i] Wages paid to employees using virtual currency are taxable to the employee, must be reported by an employer on a Form W-2, and are subject to federal income tax withholding and payroll taxes; [ii] Payments using virtual currency made to independent contractors and other service providers are taxable and self-employment tax rules generally apply (normally, payers must issue Form 1099); [iii] The character of gain or loss from the sale or exchange of virtual currency depends on whether the virtual currency is a capital asset in the hands of the taxpayer and [iv] A payment made using virtual currency is subject to information reporting to the same extent as any other payment made in property.”<sup>87</sup>

Additional points made by the IRS include the following: convertible virtual currency is a “[v]irtual currency that has an equivalent value in real currency, or that acts as a substitute for real currency,” such as Bitcoin.<sup>88</sup> Also, “[t]he sale or exchange of convertible virtual currency, or the use of convertible virtual currency to pay for goods or services in a real-world economy transaction, has tax consequences that may result in a tax liability.”<sup>89</sup> Next, “virtual currency is not treated as currency” for purposes of determining whether a transaction results in “foreign currency gain or loss under U.S. federal tax laws.”<sup>90</sup> For purposes of computing gross income, a taxpayer who receives virtual currency as payment for goods or services must “include the fair market value of virtual currency” received as “measured in U.S. dollars, as of the date that the virtual currency was received.”<sup>91</sup> The basis of virtual currency received as payment for goods or services “is the fair market value of the virtual currency in U.S. dollars as of

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<sup>84</sup> News Release, Internal Revenue Service, IRS Virtual Currency Guidance: Virtual Currency Is Treated as Property for U.S. Federal Tax Purposes; General Rules for Property Transactions Apply (Mar. 25, 2014).

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

<sup>88</sup> Public Notice, Internal Revenue Service, Notice 2014–21: IRS Virtual Currency Guidance (Apr. 14, 2014), <http://www.irs.gov/pub/irs-drop/n-14-21.pdf>.

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

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

<sup>91</sup> *Id.*

the date of receipt.”<sup>92</sup> Furthermore, “[f]or U.S. tax purposes, transactions using virtual currency must be reported in U.S. dollars” using “the fair market value of virtual currency as of the date of payment or receipt.”<sup>93</sup>

Additional IRS guidance suggests:

If the fair market value of property received in exchange for virtual currency exceeds the taxpayer’s adjusted basis of the virtual currency, the taxpayer has taxable gain. The taxpayer has a loss if the fair market value of the property received is less than the adjusted basis of the virtual currency.<sup>94</sup>

“A taxpayer generally realizes capital gain or loss on the sale or exchange of virtual currency that is a capital asset in the hands of the taxpayer” and “realizes ordinary gain or loss on the sale or exchange of virtual currency that is not a capital asset in the hands of the taxpayer” (e.g., inventory and other property held mainly for sale to customers in a trade or business).<sup>95</sup> Mining virtual currency triggers gross income at the fair market value of the virtual currency as of the date of receipt.<sup>96</sup> If a mining of virtual currency constitutes a trade or business, and the “mining” activity is not undertaken by the taxpayer as an employee, the net earnings from self-employment (generally, gross income “derived from carrying on a trade or business less allowable deductions) resulting from those activities constitute self-employment income and are subject to the self-employment tax.”<sup>97</sup> Payments in virtual currency received for services performed as an independent contractor constitute gross income, if related to any trade or business carried on by the individual as other than an employee, at the fair market value (in U.S. dollars) as of the date of receipt and “constitutes self-employment income and is subject to the self-employment tax.”<sup>98</sup>

Another point the IRS mentions is: “[T]he fair market value of virtual currency paid as wages is subject to federal income tax withholding, Federal Insurance Contributions Act (FICA) tax, and Federal Unemployment Tax Act (FUTA) tax and must be reported on Form W-2, *Wage and Tax Statement*.”<sup>99</sup> Payments made using virtual currency are subject to information reporting “to the same extent as any other payment made in property” (e.g., payments in virtual currency with a value of \$600 or more for fixed and determinable income including rent, salaries, wages, premiums, annuities, and compensation).<sup>100</sup> “[A] person who in the course

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<sup>92</sup> *Id.*

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

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> *Id.*

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

<sup>100</sup> *Id.*

of a trade or business makes a payment of \$600 or more in a taxable year to an independent contractor for the performance of services is required to report that payment to the IRS and to the payee on Form 1099-MISC, *Miscellaneous Income*.<sup>101</sup> Third party settlement organizations are “required to report payments made to a merchant on a Form 1099-K, *Payment Card and Third Party Network Transactions*, if, for the calendar year, both (1) the number of transactions settled for the merchant exceeds 200, and (2) the gross amount of payments made to the merchant exceeds \$20,000.”<sup>102</sup> Finally, “[t]axpayers may be subject to penalties for failure to comply with tax laws” (e.g., “underpayments attributable to virtual currency transactions such as accuracy-related penalties under section 6662,” and “failure to timely or correctly report virtual currency transactions when required to do so under section 6721 and 6722”).<sup>103</sup> “However, penalty relief may be available to taxpayers and persons required to file an information return who are able to establish that the underpayment or failure to properly file information returns is due to reasonable cause.”<sup>104</sup>

i. *Commodity Futures Trading Commission (Lack of) Guidance*

The CFTC’s mission is to protect market participants and the public from fraud, manipulation, abusive practices, and systemic risk related to derivatives – both futures and swaps – and to foster transparent, open, competitive, and financially sound markets.<sup>105</sup> The CFTC has not yet issued guidance on how it might regulate virtual currencies. However, in May 2013, CFTC Commissioner Bart Chilton stated that Bitcoin could come under CFTC jurisdiction as being a commodity for future delivery and that the CFTC would have a colorable claim to regulate derivative products of Bitcoin (i.e., Bitcoin futures, swaps, rolling spot Bitcoin transactions, etc.).<sup>106</sup>

In September 2014, TeraExchange launched a swap based on Bitcoin, reportedly based on approval from the CFTC.<sup>107</sup> The derivative

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<sup>101</sup> *Id.*

<sup>102</sup> *Id.*

<sup>103</sup> *Id.*

<sup>104</sup> *Id.*

<sup>105</sup> *Mission & Responsibilities*, CFTC,

<http://www.cftc.gov/About/MissionResponsibilities/index.htm> (last visited Nov. 16, 2014).

<sup>106</sup> *CFTC’s Chilton Eyes Bitcoin ‘House of Cards’ Risk* (CNBC television broadcast May 7, 2013), available at <http://video.cnbc.com/gallery/?video=3000166533>.

<sup>107</sup> TeraExchange Launches First Regulated Bitcoin Derivatives Trading: Creates Tera Bitcoin Price Index as Global Benchmark, TERA EXCHANGE,

allows clients to protect the value of their Bitcoin holdings by locking in a dollar value and offering an insurance against the price swings that have occurred with Bitcoin. This appears to be the first approval of its kind from the CFTC.

A number of companies have talked about issuing a virtual currency backed by gold or some other commodity. If these move forward, it is likely that the CFTC will closely scrutinize such activities.

### C. State Money Services Laws and Regulatory Guidance

Forty-seven states and the District of Columbia currently regulate money transmission and impose strict licensing and other requirements on entities that engage in money transmission within their jurisdictions, unless the entity or activity qualifies for an exemption from licensure.<sup>108</sup> A state's money services laws are triggered when conduct constituting any element of the regulated activity occurs within the state. In most states, licensure requirements will be triggered if an entity conducts money transmission on behalf of residents of the state or on behalf of businesses located in the state, regardless of whether such entity has a physical location in the state.<sup>109</sup>

State money services laws often include very broad definitions for "money transmission," "money transmitter," and other similar terms. For example, under many states' money services laws, "money transmission" simply means receiving money *or monetary value* from one person for transmission to another person or location by electronic or other means.<sup>110</sup> We are not aware of any existing state money services laws that expressly address virtual currency. Several states have, however, addressed the application of their money services laws to virtual currency transactions by issuing proposed regulations and formal regulatory guidance.<sup>111</sup> Other states

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[http://www.teraexchange.com/news/2014\\_09\\_12\\_Launches%20First%20Regulated%20Bitcoin%20Derivatives.pdf](http://www.teraexchange.com/news/2014_09_12_Launches%20First%20Regulated%20Bitcoin%20Derivatives.pdf)

<sup>108</sup> Montana, New Mexico, and South Carolina do not currently have statutes that require licensure for money transmission, and Massachusetts' money services law currently requires licensure only for money transmission to foreign countries. *See* MASS. GEN. LAWS ch. 169, § 1 (1991) *et seq.* Please note, however, that Massachusetts House Bills 4329 and 4246 are currently pending. *See* H.B. 4246, 188th Gen. Court, Reg. Sess. (Mass. 2014); H.B. 4329, 186th Gen. Court, Reg. Sess. (Mass. 2009). These bills would repeal the state's current law regulating foreign money transmission and replace it with a new statute that governs both domestic and foreign money transmission. *See* Mass. H.B. 4246; Mass. H.B. 4329.

<sup>109</sup> *See, e.g.,* CONN. GEN. STAT. §§ 36a-597(a).

<sup>110</sup> *See, e.g.,* KAN. STAT. ANN. § 9-508(h) (2013); MD. CODE ANN., Fin. Inst. Art. § 12-401(m)(1) (2014); NEB. REV. STAT. § 8-2716 (Supp. 2013).

<sup>111</sup> On July 17, 2014, the New York Department of Financial Services issued proposed regulations that would govern New York virtual currency businesses. *See* Proposed New York Codes, Rules and Regulations, N.Y. Dep't of Fin. Services

have indicated that they are evaluating the regulation of virtual currencies and, in the meantime, have issued advisories to residents concerning the use of virtual currencies.<sup>112</sup>

Despite the lack of specific references to virtual currency in state money services laws, states may nevertheless take the position that the scope of their money services laws currently encompasses virtual currency activity.<sup>113</sup> Some states have indicated that certain persons engaging in virtual currency transactions may be subject to their money services laws, and other states have indicated that their money services laws do not apply to certain virtual currency transactions. As a result, whether a person that engages in virtual currency transactions is required to obtain a license (or whether an exemption from licensure applies) under state money services laws in connection with the specific services being offered or performed must be analyzed on a state-by-state basis and reanalyzed as the states amend their money services laws and regulations, issue or amend their regulatory guidance, and pursue enforcement actions.

Thus, whether a person engaging in virtual currency transactions is subject to licensure under a state's money services law may depend upon whether the virtual currency is considered to be "money" and "monetary value" under the state's money services laws and whether such virtual currency activity also involves the transmission or exchange of real currency. The applicable state agencies that administer and enforce the state money services laws have significant discretion to interpret, waive,

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(July 17, 2014), available at <http://www.dfs.ny.gov/about/press2014/pr1407171-vc.pdf>; see also, e.g., Memorandum from Tex. Dep't of Banking, Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act (Apr. 3, 2014), available at <http://www.dob.texas.gov/public/uploads/files/consumer-information/sm1037.pdf>; Regulatory Treatment of Virtual Currencies Under the Kansas Money Transmitter Act, Office of the State Bank Comm'r of Kansas (June 6, 2014), available at [http://www.osbckansas.org/mt/guidance/mt2014\\_01\\_virtual\\_currency.pdf](http://www.osbckansas.org/mt/guidance/mt2014_01_virtual_currency.pdf).

<sup>112</sup> See, e.g., *What You Should Know About Virtual Currencies*, DEP'T OF BUS. OVERSIGHT CAL.,

[http://www.dbo.ca.gov/Consumers/Advisories/Virtual\\_Currencies\\_0414.pdf](http://www.dbo.ca.gov/Consumers/Advisories/Virtual_Currencies_0414.pdf) (last updated Apr. 2014); *Virtual Currencies: Risks for Buying, Selling, Transacting, and Investing*, OFFICE OF THE COMM'R OF FIN. REGULATION OF MD. (Apr. 24, 2014), <http://www.dllr.state.md.us/finance/advisories/advisoryvirtual.shtml>.

<sup>113</sup> A few states have introduced legislation to amend existing money services laws or introduce regulations that specifically address virtual currency. See H.R. 5886, 98th Gen. Assemb. (Ill. 2014) (amending the Illinois Transmitters of Money Act to define virtual currency as "a medium of exchange that operates like currency in some environments, but does not have all the attributes of real currency"); see also Proposed Regulations, N.Y. COMP. CODES R. & REGS. tit. 23, § 200 (2014), available at <http://www.dfs.ny.gov/about/press2014/pr1407171-vc.pdf>.



and limit the requirements and applicability of such laws.<sup>114</sup> Therefore, a person engaging in virtual currency transactions in one state may be subject to licensure, but not subject to licensure for engaging in the same activity in another state. We identify and discuss the application of certain states' money services laws to persons engaging in virtual currency transactions in more detail below.

### 1. California

Under California's Money Transmission Act ("California Act"), "a person shall not engage in the business of money transmission in [California], or advertise, solicit, or hold itself out as providing money transmission in [California], unless the person is licensed or exempt from licensure under [the California Act] or is an agent of a person licensed or exempt from licensure under [the California Act]."<sup>115</sup> The California Act defines "money transmission" as "any of the following: (1) [s]elling or issuing payment instruments[,] (2) [s]elling or issuing stored value[,] [or] (3) [r]eceiving money for transmission."<sup>116</sup> The terms "receiving money for transmission" or "money received for transmission" mean "receiving money *or monetary value* in the United States for transmission within or outside the United States by electronic or other means."<sup>117</sup> The California Act's definition of "money" is limited to currency that has been designated as legal tender, but the definition of "monetary value" is broader and could be interpreted to include certain virtual currencies.<sup>118</sup> Under the California Act, "monetary value" means "a medium of exchange, whether or not redeemable in money."<sup>119</sup>

Even though the California Act does not expressly address virtual currency, the California Department of Business Oversight ("DBO"), the agency that oversees state-licensed financial institutions, may nevertheless take the position that the scope of the California Act encompasses receiving certain virtual currencies, such as Bitcoin, for transmission. The DBO has not issued any guidance that specifically addresses the application of the California Act to virtual currency activities, but it has issued an advisory regarding the risks associated with virtual currencies.<sup>120</sup> If the use of virtual currencies continues to rise, we anticipate that California and other states

<sup>114</sup> See, e.g., TEX. FIN. CODE § 151.103(c) (2005) ("The [Banking Commissioner of Texas] may impose on any authority, approval, exemption, license, or order issued or granted under [the Texas Money Services Act] any condition the [Banking Commissioner of Texas] considers reasonably necessary or appropriate to carry out and achieve the purposes of [the Money Services Act].").

<sup>115</sup> CAL. FIN. CODE § 2030(a) (2010).

<sup>116</sup> *Id.* § 2003(o).

<sup>117</sup> *Id.* § 2003(s) (emphasis added).

<sup>118</sup> *Id.* § 2003(n).

<sup>119</sup> *Id.* § 2003(m).

<sup>120</sup> See *What You Should Know About Virtual Currencies*, *supra* note 113.

will specifically address the application of their money services laws to virtual currency transactions.<sup>121</sup>

## 2. Texas

Several states, including Texas, have indicated that certain persons involved in virtual currency transactions may be subject to their money services laws. On April 3, 2013, the Texas Department of Banking (“DOB”), the state agency that enforces the Texas Money Services Act, Tex. Fin. Code §§ 151.001 *et seq.* (“Texas Act”), issued a supervisory memorandum outlining its interpretation and application of the Texas Act to certain activities involving decentralized virtual currency.<sup>122</sup> In the supervisory memorandum, the DOB explains that “money transmission licensing determinations regarding transactions with cryptocurrency<sup>123</sup> turn on the single question of whether cryptocurrencies should be considered ‘money or monetary value’ under the [Texas Act].”<sup>124</sup>

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<sup>121</sup> While the California Act has not been amended to address virtual currency, the California Assembly has amended the California Corporations Code to accommodate the issuance and use of virtual currencies. On June 28, 2014, Governor Brown signed Assembly Bill 129, which repeals Section 107 of the California Corporations Code that prohibited persons from issuing or putting in circulation, as money, anything but the lawful money of the U.S. In a hearing on the bill, the Assembly Committee on Banking and Finance emphasized that:

This bill makes clarifying changes to current law to ensure that various forms of alternative currency such as digital currency, points, coupons, or other objects of monetary value do not violate the law when those methods are used for the purchase of goods and services or the transmission of payments.

*Lawful money: Alternative Currency: Hearing on Assemb. B. 192 Before the Assemb. Comm. on Banking and Fin.*, 1–2 (Cal. 2014), available at [http://abnk.assembly.ca.gov/sites/abnk.assembly.ca.gov/files/AB\\_129\\_0\\_ABPCA\\_CX27\\_Dickinson\\_RN\\_SN\\_20140107\\_FAROUKMA\\_20140121\\_FN\\_R092121.pdf](http://abnk.assembly.ca.gov/sites/abnk.assembly.ca.gov/files/AB_129_0_ABPCA_CX27_Dickinson_RN_SN_20140107_FAROUKMA_20140121_FN_R092121.pdf)

<sup>122</sup> Charles G. Cooper, *Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act*, Tex. Dep’t of Banking (Apr. 3, 2014), available at <http://www.dob.texas.gov/public/uploads/files/consumer-information/sm1037.pdf>. This guidance does not address the treatment of centralized virtual currencies under the Texas Act. The DOB explained that it “must individually analyze centralized virtual currency schemes” to make money transmission licensing determinations because “the factors distinguishing the various centralized virtual currencies are usually complicated and nuanced.” *Id.*

<sup>123</sup> The supervisory memorandum focuses on cryptocurrencies, which the DOB describes as virtual currencies that lack intrinsic value and are based on a cryptographic protocol that manages the creation of new units of the currency through a peer-to-peer network. Bitcoin, Litecoin, Peercoin and Namecoin are well-known examples of cryptocurrencies. *Id.* at 3.

<sup>124</sup> *Id.* at 2.

Under the Texas Act, “[a] person may not engage in the business of money transmission or advertise, solicit, or hold itself out as a person that engages in the business of money transmission unless the person: (1) is licensed under [the Texas Act]; (2) is an authorized delegate of a person licensed under [the Texas Act]; (3) is excluded from licensure under Section 151.003 [of the Texas Act]; or (4) has been granted an exemption [from the Banking Commissioner of Texas].”<sup>125</sup> The term “money transmission” means “the receipt of money or monetary value by any means in exchange for a promise to make the money or monetary value available at a later time or different location,” and the terms “money” and “monetary value” mean “currency or a claim that can be converted into currency through a financial institution, electronic payments network, or other formal or informal payment system.”<sup>126</sup> Based upon these definitions, the DOB concludes that cryptocurrencies, as currently implemented, cannot be considered “money” or “monetary value” under the Texas Act, and therefore, receiving cryptocurrency in exchange for a promise to make it available at a later time or different location is not money transmission under the Texas Act.<sup>127</sup>

Even though the DOB indicates that a person who receives cryptocurrency for transmission is not subject to licensure under the Texas Act, it cautions that when a cryptocurrency transaction includes sovereign currency, it may be money transmission depending on how the sovereign currency is handled.<sup>128</sup> To provide further guidance, the DOB identifies some specific types of cryptocurrency transactions and clarifies whether such transactions would be subject to the Texas Act. For example, the DOB concludes that the following activities are not deemed to be “money transmission” under the Texas Act: (i) the exchange of cryptocurrency for sovereign currency between two parties; (ii) the exchange of one cryptocurrency for another cryptocurrency, regardless of how many parties are involved; and (iii) the transfer of cryptocurrency by itself.<sup>129</sup> In contrast, the exchange of cryptocurrency for sovereign currency through a third-party exchanger is generally money transmission under the Texas Act, and the exchange of cryptocurrency for sovereign currency through an automated machine is usually, but not always, money transmission under the Texas Act.<sup>130</sup> Consequently, a person that engages in activity involving both cryptocurrency and sovereign currency may be subject to licensure under the Texas Act, depending on the specific facts and circumstances of the activity.

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<sup>125</sup> TEX. FIN. CODE § 151.302(a) (2005).

<sup>126</sup> *Id.* §§ 151.301(b)(3) & (4) (emphasis added).

<sup>127</sup> Cooper, *supra* note 123.

<sup>128</sup> *Id.* at 3.

<sup>129</sup> *Id.* at 3–4.

<sup>130</sup> *Id.* at 4.

### 3. *Kansas*

Like Texas, Kansas has also indicated that persons engaging in the use and/or transmission of virtual currencies may be subject to the Kansas Money Transmitter Act, Kan. Stat. §§ 9-508 *et seq.* (“Kansas Act”). On June 6, 2014, the Kansas Office of the State Bank Commissioner, the state agency that enforces the Kansas Act (“OSBC”), issued guidance modeled after the virtual currency guidance issued by the DOB.<sup>131</sup> Like the guidance issued by the DOB, the OSBC emphasizes that “[w]hether or not a Kansas money transmitter license is required for an entity to engage in the transmission of cryptocurrency<sup>[132]</sup> turns on the question of whether cryptocurrency is considered ‘money’ or ‘monetary value’ under the [Kansas Act].”<sup>133</sup>

The Kansas Act provides that:

No person shall engage in the business of selling, issuing or delivering its payment instrument, check, draft, money order, personal money order, bill of exchange, evidence of indebtedness or other instrument for the transmission or payment of money or otherwise engage in the business of money transmission with a resident of [Kansas], or . . . act as agent for another in the transmission of money as a service or for a fee or other consideration, unless such person obtains a license from the commissioner [of the OSBC].<sup>134</sup>

Under the Kansas Act, “‘money transmission’ means to engage in the business of . . . receiving money *or monetary value* for transmission to a location within or outside the United States by wire, facsimile, electronic means or any other means . . .”<sup>135</sup> The Kansas Act does not define “money.” For its analysis, the OSBC relies on Black’s Law Dictionary’s definition of “money” (the “medium of exchange authorized or adopted by a government as part of its currency”) to conclude that cryptocurrency is not “money” for purposes of the Kansas Act because no cryptocurrency is currently authorized or adopted by any governmental entity as its currency.<sup>136</sup>

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<sup>131</sup> Guidance Document issued by the Kan. Office of the State Bank Comm’r 1 n.2 (June 6, 2014), *available at* [http://www.osbckansas.org/mt/guidance/mt2014\\_01\\_virtual\\_currency.pdf](http://www.osbckansas.org/mt/guidance/mt2014_01_virtual_currency.pdf) (failing to address the treatment of centralized virtual currencies under the Kansas Act).

<sup>132</sup> *Id.* (following suit of the supervisory memorandum issued by the DOB, the OSBC’s guidance focuses on cryptocurrencies).

<sup>133</sup> *Id.* at 3.

<sup>134</sup> KAN. STAT. ANN. § 9-509(a) (2013).

<sup>135</sup> *Id.* § 9-508(g) (emphasis added).

<sup>136</sup> Regulatory Treatment of Virtual Currencies, *supra* note 112, at 3.

“Monetary value” is, however, defined by the Kansas Act as “a medium of exchange, whether or not redeemable in money.”<sup>137</sup> The Kansas Act does not define “medium of exchange,” and the OSBC again relies on Black’s Law Dictionary, which “defines ‘medium of exchange’ as ‘anything generally accepted as payment in a transaction and recognized as a standard of value.’”<sup>138</sup> In this case, the OSBC also concludes that cryptocurrency is not “monetary value” under the Kansas Act because cryptocurrency is not generally accepted throughout the entire economy nor does it have a recognized standard of value.<sup>139</sup> Based on its conclusion that cryptocurrency is neither “money” or “monetary value” under the Kansas Act, the OSBC, like the DOB, determines that “an entity engaged solely in the transmission of such currency would not be required to obtain a license in the State of Kansas.”<sup>140</sup> And again, like the DOB, the OSBC cautions that if the transmission of cryptocurrency also involves sovereign currency, “it may be considered money transmission” under the Kansas Act, depending on the facts and circumstances.<sup>141</sup>

Both the DOB and the OSBC determine that their states’ money services laws do not apply to cryptocurrency transactions, unless such transactions involve sovereign currency. Unlike the DOB, the OSBC relies primarily on its interpretation of relevant definitions in Black’s Law Dictionary in its guidance. What is notable is that the OSBC could have reached a different outcome if it considered cryptocurrency to be a generally accepted payment method with a recognized standard of value and, therefore, a “medium of exchange,” as defined by Black’s Law Dictionary, and “monetary value” under the Kansas Act. Based upon the rising prevalence of certain cryptocurrencies, other states may apply the same or similar definitions to determine that cryptocurrencies are monetary value under their money services laws.<sup>142</sup>

#### 4. Idaho

In contrast to the position of the DOB and the OSBC that cryptocurrencies are not “monetary value” under the Texas Act or the Kansas Act, respectively, the Idaho Department of Financial Services (“DFS”), the state agency that administers and enforces the Idaho Money

<sup>137</sup> *Id.*; KAN. STAT. ANN. § 9-508(f).

<sup>138</sup> Regulatory Treatment of Virtual Currencies, *supra* note 112, at 3.

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Id.*

<sup>142</sup> See MASSACHUSETTS DIVISION OF BANKS AND CONFERENCE OF STATE BANK SUPERVISORS, *2014 Consumer Survey: Consumer Attitudes on Bitcoin and Other Virtual Currencies* (Aug. 27, 2014), available at <http://www.csbs.org/regulatory/ep/Documents/Final%20Report-VirtualCurrencySurvey2014.pdf> (finding that over half of respondents—fifty-one percent—said they had heard of Bitcoin or another virtual currency).

Transmitters Act, Idaho Code §§ 26-2902 *et seq.* (“Idaho Act”), believes that virtual currency may be considered a type of stored value subject to regulation thereunder. The Idaho Act provides that, subject to certain exceptions, “no person . . . shall engage in the business of money transmission without a license.”<sup>143</sup> Under the Idaho Act, “money transmission” means:

[T]he sale or issuance of payment instruments or engaging in the business of receiving money for transmission or the business of transmitting money within the United States or to locations outside the United States by any and all means including, but not limited to, payment instrument, wire, facsimile or electronic transfer.<sup>144</sup>

The term “payment instrument” means “any check, draft, money order, traveler’s check or other instrument or written order for the transmission or payment of money, sold or issued to one (1) or more persons, whether or not such instrument is negotiable.”<sup>145</sup> Unlike other state money services laws, the Idaho Act does define “money.”

In an email response provided on August 21, 2013, to an inquiry regarding whether a digital currency exchange is subject to the Idaho Act, the DFS acknowledges that virtual currencies

[A]re perceived and used as stores of value. They may be purchased, held, transferred and used in commercial/consumer transactions . . . not unlike old-school money orders, travelers checks, and in some respect money remittances. As such, [the DFS’] present view is that they are a form of payment instrument and fall within the ambit of the [Idaho Act]. We also believe that deferred currency delivery mechanisms (exchangers) might also fall under the [Idaho Act] . . . We expect that a money transmitters license would be necessary . . . to engage in digital currency transactions on behalf of Idaho residents.<sup>146</sup>

Accordingly, it is possible that the DFS may consider Bitcoin and other virtual currencies to be “payment instruments” under the Idaho Act and that

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<sup>143</sup> IDAHO CODE ANN. § 26-2903(1).

<sup>144</sup> *Id.* § 26-2902(11).

<sup>145</sup> *Id.* § 26-2902(13).

<sup>146</sup> IDAHO DEPARTMENT OF FINANCIAL SERVICES, *Opinion Emails Issued by Idaho Dept. of Finance* (Aug. 21, 2013), available at <http://www.finance.idaho.gov/MoneyTransmitter/Documents/MT%20Interpretations%202013.pdf>.

Bitcoin issuance, sale, or exchange requires a money transmitter license, unless an exclusion or exemption applies.<sup>147</sup>

### 5. New York

New York is the state that has most actively pursued efforts to regulate virtual currency activities. The New York Department of Financial Services (“NYDFS”), the state agency that supervises money transmitters in New York and enforces the New York transmitters of money law, N.Y. Banking Law §§ 640 *et seq.*, commenced an inquiry into the use of virtual currencies.<sup>148</sup> The NYDFS expressed concern that virtual currencies help support dangerous criminal activity and are a “virtual Wild West for narcotraffickers and other criminals . . . .”<sup>149</sup> Despite this concern, the NYDFS has indicated a willingness to work “with the virtual currency industry and other stakeholders” to establish “appropriate regulatory guardrails to protect consumers and our national security.”<sup>150</sup> On January 28 and 29, 2014, the NYDFS held hearings to discuss the regulation of virtual currencies, including the potential issuance of a “BitLicense” specific to virtual currencies.<sup>151</sup> Based in part on the issues discussed at these hearings, the NYDFS concluded “that simply applying [its] existing money transmission regulations to virtual currency firms is not sufficient.”<sup>152</sup>

<sup>147</sup> See IDAHO CODE ANN. § 26-2904. The Idaho Act does not apply to:

- (a) The United States or any department, agency or instrumentality of the United States;
- (b) [t]he United States post office;
- (c) [t]he state or any political subdivision of the state; and
- (d) [b]anks, credit unions, savings and loan associations, savings banks or mutual banks organized under the laws of any state or the United States, provided that they do not issue or sell payment instruments through authorized delegates who are not banks, credit unions, savings and loan associations, savings banks or mutual banks [and] [a]uthorized representatives of a licensee, acting within the scope of authority conferred by a written contract conforming to the requirements of [the Idaho Act] shall not be required to obtain a license pursuant to [the Idaho Act].

*Id.*

<sup>148</sup> NEW YORK DEPARTMENT OF FINANCIAL SERVICES, *Notice of Inquiry on Virtual Currencies* (Aug. 12, 2013), available at <http://www.dfs.ny.gov/about/press2013/memo1308121.pdf>.

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

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

<sup>151</sup> Please insert footnote for your source regarding New York’s BitLicense hearings.

<sup>152</sup> Benjamin M. Lawsky *Remarks of Benjamin M. Lawsky, Superintendent of Financial Services for the State of New York, on the Regulation of Virtual Currencies at the New America Foundation in Washington, DC* (Feb. 11, 2014), available at [http://www.dfs.ny.gov/about/speeches\\_testimony/sp140212.htm](http://www.dfs.ny.gov/about/speeches_testimony/sp140212.htm).

On July 17, 2014, the NYDFS issued a proposed BitLicense regulatory framework (“Proposed Regulations”)<sup>153</sup> for a forty-five-day public comment period,<sup>154</sup> which was subsequently extended to a 90-day comment period due to the large volume of public requests for additional information and time to study the proposal.<sup>155</sup> The stated purpose of the Proposed Regulations is “[t]o regulate retail-facing virtual currency business activity in order to protect New York consumers and users and ensure the safety and soundness of New York licensed providers of virtual currency products and services.”<sup>156</sup> The Proposed Regulations provide that, subject to certain exceptions,<sup>157</sup> “[n]o Person shall, without a license obtained from the superintendent as provided in [the Proposed Regulations], engage in any Virtual Currency Business Activity.”<sup>158</sup>

Under the Proposed Regulations:

Virtual Currency Business Activity means the conduct of any one of the following types of activities involving New York or a New York Resident: (1) receiving Virtual Currency<sup>159</sup> for transmission or transmitting the same; (2)

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<sup>153</sup> N.Y. COMP. CODES R. & REGS. tit. 23, Part 200 (proposed July 17, 2014), available at <http://www.dfs.ny.gov/about/press2014/pr1407171-vc.pdf>.

<sup>154</sup> Notice of Rule Making Activities, “Regulation of the Conduct of Virtual Currency Businesses” (July 23, 2014) available at <http://docs.dos.ny.gov/info/register/2014/july23/pdf/rulemaking.pdf>

<sup>155</sup> *How to Submit Comments on Proposed Virtual Currency Regulatory Framework*, N.Y. DEP’T FIN. SRVCS., [http://www.dfs.ny.gov/legal/vcrf\\_submit\\_comments.htm](http://www.dfs.ny.gov/legal/vcrf_submit_comments.htm) (last visited Nov. 16, 2014).

<sup>156</sup> Notice of Rule Making Activities, *supra* note 155.

<sup>157</sup> N.Y. COMP. CODES R. & REGS. tit. 23, § 200.3(c):

The following Persons are exempt from the licensing requirements otherwise applicable under [the Proposed Regulations]: (1) Persons that are chartered under the New York Banking Law to conduct exchange services and are approved by the superintendent to engage in Virtual Currency Business Activity; and (2) merchants and consumers that utilize Virtual Currency solely for the purchase or sale of goods or services.

<sup>158</sup> *Id.* § 200.3(a).

<sup>159</sup> Under the Proposed Regulations, “Virtual Currency” means:

[A]ny type of digital unit that is used as a medium of exchange or a form of digitally stored value or that is incorporated into payment system technology. Virtual Currency shall be broadly construed to include digital units of exchange that (i) have a centralized repository or administrator; (ii) are decentralized and have no centralized repository or administrator; or (iii) may be created or obtained by computing or manufacturing effort. Virtual Currency shall not be construed to include digital units that are used solely within online gaming platforms with no market or application outside of those gaming platforms, nor



securing, storing, holding, or maintaining custody or control of Virtual Currency on behalf of others; (3) buying and selling Virtual Currency as a customer business; (4) performing retail conversion services, including the conversion or exchange of Fiat Currency or other value into Virtual Currency, the conversion or exchange of Virtual Currency into Fiat Currency or other value, or the conversion or exchange of one form of Virtual Currency into another form of Virtual Currency; or (5) controlling, administering, or issuing a Virtual Currency.<sup>160</sup>

The breadth of this definition would likely require the licensure of many persons engaged in virtual currency transactions, such as virtual currency exchanges, wallets, and processors. However, engaging in the same activity with the resident of another state might not otherwise subject someone to licensure under other states' money services laws. For example, engaging in the business of exchanging one cryptocurrency for another cryptocurrency for a New York resident would likely be considered to be "Virtual Currency Business Activity" under the Proposed Regulations and, thus, require a license from the NYDFS. In contrast, the DOB and the OSBC have both indicated that the exchange of one cryptocurrency for another cryptocurrency is not money transmission under the Texas Act and the Kansas Act, respectively, regardless of how many parties are involved.<sup>161</sup>

The application process to obtain a license under the Proposed Regulations is similar to the application process for obtaining a money transmitter license from the NYDFS and includes extensive requirements, such as background reports, biographical information, financial statements, and fingerprints of principal officers and stockholders of the applicant.<sup>162</sup> The requirements for holding a license under the Proposed Regulations are also similar to the requirements for holding a money transmitter license

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shall Virtual Currency be construed to include digital units that are used exclusively as part of a customer affinity or rewards program, and can be applied solely as payment for purchases with the issuer and/or other designated merchants, but cannot be converted into, or redeemed for, Fiat Currency.

*Id.* § 200.2(m).

<sup>160</sup> *Id.* § 200.2(n).

<sup>161</sup> *Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act issued by the Texas Department of Banking* (Apr. 3, 2014), available at <http://www.dob.texas.gov/public/uploads/files/consumer-information/sm1037.pdf>; *Regulatory Treatment of Virtual Currencies Under the Kansas Money Transmitter Act issued by the Office of the State Bank Commissioner of Kansas* (Jun. 6, 2014), available at [http://www.osbckansas.org/mt/guidance/mt2014\\_01\\_virtual\\_currency.pdf](http://www.osbckansas.org/mt/guidance/mt2014_01_virtual_currency.pdf).

<sup>162</sup> N.Y. COMP. CODES R. & REGS. tit. 23, § 200.4; N.Y. BANKING LAW § 641.

issued by the NYDFS. Such requirements include, for example, obligations to implement an anti-money laundering program (including identity verification procedures for accountholders), provide certain consumer disclosures, satisfy certain capital requirements, and maintain certain books and records.<sup>163</sup> The Proposed Regulations may likely serve as a model for other states that consider regulating virtual currencies.

#### 6. *Potential Penalties for Violations of State Money Services Laws*

A person or entity that fails to comply with the state money services laws may be subject to criminal and civil penalties, injunctions, cease and desist orders, and other enforcement actions. In general, states impose criminal penalties against persons facilitating illicit or fraudulent activity, and not against persons merely engaging in money transmission without a license. States may take disciplinary actions against money transmission licensees for failing to comply with applicable regulatory requirements and against non-licensees for failing to obtain a required license to engage in money transmission. States may even take disciplinary actions against a person whose money transmission license application has been filed but remains pending. To resolve alleged violations of money services laws by a person, states may enter into consent orders with the person and assess related fines or penalties.

## II. RATIONALIZATION AND FUTURE ISSUES

### A. *Discussion of Potentially Conflicting Classifications*

At first glance, the various characterizations of convertible virtual currency seem contradictory: currency by FinCEN, a security by the SEC, property by the IRS, and potentially a commodity by the CFTC. Some people have suggested that because these various agencies are trying to “shoehorn” the facts to fit within their respective jurisdiction given the existing legislative structure, this is not a surprising result. However, upon a closer analysis, these classifications may not actually be as contradictory as they appear. A plausible explanation, that at least partially rationalizes these classifications, is that a key issue is how the currency is used rather than what it is.

FinCEN classified convertible virtual currency as having the attributes of currency. However, it does distinguish between real currency and virtual currency, which it defines as “a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency . . . [and] does not have legal tender status in any

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<sup>163</sup> N.Y. COMP. CODES R. & REGS. tit. 23, § 200.8, 200.12, 200.15 & 200.19 (proposed July 17, 2014).

jurisdiction.”<sup>164</sup> Whether a person engaged in virtual currency transactions is a money transmitter under the BSA Regulations depends, in part, on whether such transactions involve convertible virtual currency. The VC Guidance distinguishes between types of persons engaged in virtual currency activities (users, administrators, and exchangers) and the application of the BSA Regulations to such activities. FinCEN’s regulation of convertible virtual currency is based, at least in part, on what such persons use convertible virtual currency for, and for whose benefit.<sup>165</sup>

In *Shavers*, the SEC based its claims, at least in part, on how Bitcoin was used.<sup>166</sup> For example, in the *Shavers* case, a key issue was that Bitcoin served as a basis for an “investment contract,” which falls within the definition of security for purposes of the SEC’s regulations.<sup>167</sup> In *Shavers*, how Bitcoin was used triggered the SEC’s jurisdiction.<sup>168</sup> Bitcoin itself was not determined to be a security.<sup>169</sup>

While the CFTC has not officially ruled or issued formal guidance regarding their regulation of Bitcoin and other virtual currencies, similar logic may apply. Bitcoin itself arguably is not a commodity. Due to the decentralized nature of Bitcoin, no entity backs or supports the value of Bitcoin. Its value derives from someone else being willing to accept Bitcoin and ascribing a value to it. No entity or contract promises or ensures any future value of Bitcoin. As discussed below, certain types of alternative coins (“alt coins”) may be more susceptible to regulation by the CFTC because of their unique characteristics.

The IRS classification of Bitcoin as property focuses on the possessory interest of Bitcoin. The IRS concludes that Bitcoin and other virtual currencies are digital assets, to some extent like music and video games.<sup>170</sup> However, the IRS acknowledges that, for different taxpayers, the nature of their use of virtual currency may implicate different results under the federal tax code.<sup>171</sup> For example, the IRS guidance indicates that “a taxpayer generally realizes capital gain or loss on the sale or exchange of

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<sup>164</sup> See FIN-2013-G001, *supra* note 6.

<sup>165</sup> *Id.*

<sup>166</sup> See generally Complaint, *supra* note 75.

<sup>167</sup> A “security” is defined as “any note, stock, treasury stock, security future, security-based swap, bond...[or] investment contract . . .” 15 U.S.C. § 77b(a)(1). An “investment contract” is any contract, transaction, or scheme involving (1) an investment of money, (2) in a common enterprise, (3) with the expectation that profits will be derived from the efforts of the promoter or a third party. *SEC v. W.J. Howey & Co.*, 328 U.S. 293, 301 (1946); *Long v. Shultz Cattle Co.*, 881 F.2d 129, 132 (5th Cir. 1989).

<sup>168</sup> Complaint, *supra* note 75, at 2.

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

<sup>170</sup> News Release, Internal Revenue Service, IRS Gives Colorado Flood Victims More Time To Decide When To Claim Losses (Mar. 25, 2014).

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

virtual currency that is a capital asset in the hands of the taxpayer” and “realizes ordinary gain or loss on the sale or exchange of virtual currency that is not a capital asset in the hands of the taxpayer” (e.g., inventory and other property held mainly for sale to customers in a trade or business).<sup>172</sup>

It will be interesting to see if the IRS maintains its classification of Bitcoin as property. Shortly after the IRS issued its guidance, Congressman Steve Stockman (R-TX), introduced proposed legislation that would amend the IRS’ classification of Bitcoin as property.<sup>173</sup> The Virtual Currency Tax Reform Act would require the IRS to “treat virtual currencies as foreign currency for [f]ederal tax purposes.”<sup>174</sup>

### B. *Advanced Functionality and Alt Coins*

A number of companies have discussed creating a virtual currency backed by gold or other commodity with intrinsic value.<sup>175</sup> Depending on how these currencies are implemented, it is possible that they may be deemed commodities. For example, if ownership of a unit of virtual currency represents a right to exchange that virtual currency for a fixed quantity of gold or other commodity, then this takes on more of an appearance of a contract for future delivery. However, the specific implementation may be critical in determining how and if the CFTC’s regulations apply.

Other companies have minted physical coins that represent bitcoins or other value. Some of these coins were designed to be novelties, some made of gold or other precious metal that had inherent value and others designed to represent ownership in Bitcoin or virtual currency.

#### 1. *Casascius Coin*

One example is the Casascius coin. The Casascius Bitcoin is a physical coin tied to bitcoins. As stated on the Casascius website: “Each Casascius Bitcoin is a collectible coin backed by real Bitcoins embedded inside. Each piece has its own Bitcoin address and a redeemable ‘private

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

<sup>173</sup> Virtual Currency Tax Reform Act, H.R. 4602, 113th Cong. § 4 (2014).

<sup>174</sup> *Id.*

<sup>175</sup> Such a concept is not new. One of the most well-known prior attempts at this was known as E-gold. E-gold was a gold-backed digital currency operated by Gold & Silver Reserve Inc. that allowed users to create accounts denominated in grams of gold (or other precious metals) and the ability to make instant transfers of value to other E-gold accounts. Allegedly, the company backed these services by actual gold stored in safe deposit boxes. Eventually the company shut down for a variety of legal reasons. The issue of whether E-gold was a commodity or subject to CFTC jurisdiction was not addressed by applicable regulators or the courts.

key' on the inside, underneath the hologram."<sup>176</sup> The coins create a way to use bitcoins without using a computer. Creating physical coins that represent value creates a whole host of potential regulatory issues.

In late 2013, the owner of Casascius coin reportedly received a letter from FinCEN, stating he was operating as an MSB that must be registered with FinCEN. He has since ceased offering the coins. While the CFTC did not take any formal action against the owner, it would be interesting to know how the CFTC would classify these types of coins that appear to represent a form of promise to deliver something of value. Currently, Casascius has suspended the sale of coins that "contain" embedded Bitcoins.

One of the other legal issues potentially raised by the use of physical coins is the Stamp Payments Act, which states that "[w]hoever makes, issues, circulates, or pays out any note, check, memorandum, token, or other obligation for a less sum than \$1, intended to circulate as money or to be received or used in lieu of lawful money of the United States, shall be fined under this title or imprisoned not more than six months, or both."<sup>177</sup>

A Congressional Research Service ("CRS") report indicates that:

It does not seem likely that a currency that has no physicality would be held to be covered by this statute even though it circulates on the internet on a worldwide basis and is used for some payments of less than \$1. The language of the statute, 'not[e], check, memorandum, token,' seems to contemplate a concrete object rather than a computer file; moreover, a digital currency such as Bitcoin, without a third-party issuer, cannot be said to be an obligation.<sup>178</sup>

This CRS conclusion is based on the lack of a physical token and lack of an "obligation."<sup>179</sup> The conclusion may differ in connection with a physical coin, such as Casascius coin. Depending on the value of the coins, the "payments of less than \$1" provision may cause such coins to fall outside the scope of the Stamp Payments Act. However, one of the potential benefits of Bitcoin and other virtual currencies is the ability to handle micropayments. The potential for coins that enable payments of less than \$1 may be an issue in some cases. Additionally, it is possible, depending on the implementation, that the issuer of a physical coin tied to some other virtual currency (or something of value) may undertake some obligation,

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<sup>176</sup> PHYSICAL BITCOINS BY CASASCIUS, <https://www.casascius.com>.

<sup>177</sup> Issuance of Circulating Obligations of Less Than \$1, 18 U.S.C. § 336 (2014).

<sup>178</sup> Craig K. Elwell et al., Cong. Research Serv., R43339, Bitcoin: Questions, Answers, and Analysis of Legal Issues, 12 (July 15, 2014), *available at* <http://fas.org/sgp/crs/misc/R43339.pdf>.

<sup>179</sup> *Id.*

for example if the coin represents an obligation to deliver a fixed quantity of a commodity.

## 2. Namecoin and DNS

Namecoin is the basis of a decentralized, open source, domain name system (“DNS”) based on the Bitcoin protocol.<sup>180</sup> Namecoin “securely record[s] and transfer[s] arbitrary names (keys); [a]ttach[es] a value (data) to the names (up to 520 bytes, more in the future); [and] [t]ransact[s] namecoins, the digital currency (N, NMC).”<sup>181</sup>

Namecoin is a fork of the Bitcoin code base.<sup>182</sup> It is very similar to Bitcoin but adds some code that enables some very important functionality.<sup>183</sup> “Namecoin leverages Bitcoin’s monetary-value store but focuses more on additional information which can be stored, such as a domain name system or an identification/authorization database.”<sup>184</sup>

The Namecoin software is used to register names and store associated values in the blockchain,<sup>185</sup> a shared database distributed by [person-to-person (p2p)] in a secure way. The software can then be used to query the database and retrieve data.<sup>186</sup>

Namecoin enables an alternative to other domain name registrars. This highlights one of the advanced functions of the Bitcoin protocol (as modified by Namecoin). That is to say, it can be used as a title/property ownership registration system. In this first instance, the title reflects ownership of a domain. But the system is not so limited. It is possible that this type of system could be used to main registries of other types of property.

## 3. Smart Contracts and Escrows

Smart contracts<sup>187</sup> are a way of writing computer code to programmatically implement the various phases of contract negotiation,

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<sup>180</sup> NAMECOIN, <http://namecoin.info> (last visited Nov. 16, 2014).

<sup>181</sup> *Id.*

<sup>182</sup> *Id.*

<sup>183</sup> *Namecoin FAQ*, NAMECOIN, <https://wiki.namecoin.info/index.php?title=FAQ> (last visited Nov. 16, 2014).

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

<sup>185</sup> The blockchain is a public ledger that records all transactions that occur using the Bitcoin (or other) protocol.

<sup>186</sup> *Namecoin FAQ*, *supra* note 184.

<sup>187</sup> The concept of smart contracts is often credited to Nick Szabo and his seminal paper entitled *Formalizing and Securing Relationships on Public Networks*. See Nick Szabo, *Formalizing and Securing Relationships on Public Networks*, available at <http://szabo.best.vwh.net/formalize.html>.

formation, execution, and adjudication. The terms of the contract can be enforced by the computer program's execution. A simple example is a loan. If party A borrows \$100 from party B and promises to repay by Day 1, code can be written to model this simple contract. On Day 1, the code can determine if the payment was made or not. Taking things a step further, the parties to the loan could agree that if payment is not made by Day 1, then some mutually agreed event will occur. So code can be written to cause some conditional event to occur (e.g., transfer of digital objects, a certificate of title, etc.)

To facilitate this type of transfer, a "digital escrow" can occur. In this case, the digital escrow could be a title certificate or something else of value. The escrow instructions can depend on the determination the computer program makes on Day 1. If the payment is made, then the escrowed item can be released from escrow back to Party A (the borrower). If not, then the escrowed item can be released from escrow to Party B (the lender).

More advanced examples are easily envisioned. Suppose a car loan is implemented via a smart contract. Further suppose that to start the car you need a key that has a digital authorization code. Part of the smart contract could be that the digital code is valid for so long as the borrower timely makes payments. But if the borrower is in default, the borrower's authorization code is deactivated, thus rendering the car unusable to the borrower. Of course, a new authorization code could be authorized for the lender to take possession of the car.

#### 4. *Mediation of Smart Contracts*

Disputes often arise between contracting parties, and mediation is a common method of dispute resolution. This too can be implemented via smart contracts. For example, the Bitcoin protocol enables (m) of (n) transactions. This functionality requires a total of (m) digital signatures, out of a possible (n) to cause a transaction to be executed. For simplicity, suppose there are two parties to a contract and one mediator. Suppose the smart contract is set up to require 2 (m) of 3 (n) signatures. If the parties each agree, they both can provide their digital signatures and the 2 (m) of 3 (n) criteria are met. But if the parties do not agree, the mediator can resolve the issue. If party A and the mediator agree on the issues, both can provide their digital signatures and the 2 of 3 criteria are met. This requires a trusted mediator but still provides a simple (and largely automated) contract adjudication mechanism.

Another option is to use a "smart oracle", which provides information about the outside world that can be used to help implement and

adjudicate smart contracts.<sup>188</sup> This information can be used to validate if certain steps have been taken or conditions have been satisfied relating to the contract.<sup>189</sup>

All of these functions may be implemented using the Bitcoin protocol and other transaction protocols. A number of companies have built smart contract implementations, including Ripple Labs, Open Transactions, and Ethereum.<sup>190</sup> Clearinghouse is an implementation that is built on an alt coin called viacoin.<sup>191</sup>

##### 5. *Potential Legal and Regulatory Issues Relating to Smart Contracts*

The potential legal and regulatory issues that relate to smart contracts are plentiful. In addition to the potential legal and regulatory issues addressed above, smart contracts raise many contractual issues. In general, parties to a smart contract mutually agree to contract terms similar to traditional contracts. However, one potential issue is contract formation. An entire body of law exists around online contracts and when parties have formed a valid contract online. Similar issues can arise with smart contracts. As parties enter into smart contracts, they will need to ensure that they have formed a valid contract. Another issue relates to contract execution. One of the main facilitators of smart contracts is the ability to create computer code to implement the contract terms.

Nick Szabo has drafted an interesting paper on some of the legal concepts underpinning the smart contracts (assignment of rights and delegation of duties) and their computerized manifestation.<sup>192</sup> One issue that is likely to arise is an error or bug in the code. Suppose an error in the code improperly causes a transfer of title. How and under what circumstances will the aggrieved party be able to reverse the error? Will that party have to go to court and show some mutual mistake of the parties? One of the advantages of Bitcoin is that transactions are generally irreversible. That “advantage” in some contexts may be a disadvantage if an error occurs in connection with adjudication of a smart contract. These issues are likely just the tip of the iceberg. Despite the fact that the

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<sup>188</sup> Stefan Thomas & Evan Schwartz, *Smart Oracles: A Simple, Powerful Approach to Smart Contracts* (July 17, 2014), available at <https://github.com/codius/codius/wiki/Smart-Oracles:-A-Simple,-Powerful-Approach-to-Smart-Contracts>.

<sup>189</sup> *Id.*

<sup>190</sup> Please insert citation for your sources about particular corporations’ use of smart contracts.

<sup>191</sup> Please insert citation for your sources’ general description of Clearinghouse and viacoin.

<sup>192</sup> Nick Szabo, *Rights, Remedies, and Security Models* (2004), available at <http://szabo.best.vwh.net/rrsmodels.html>.



companies building smart contract and smart property platforms are considering these issues, many issues that have not yet been considered are likely to arise.

### III. CONCLUSION

The regulations concerning Bitcoin and other virtual currencies are taking shape, but are still in a state of flux. Most of the relevant agencies have issued guidance based on existing laws and regulations. It is possible that new legislation and/or rules will be implemented to deal with some of the nuances of convertible virtual currency that were not previously envisioned. As the world grapples to understand the basics of Bitcoin and other virtual currencies, many companies are rapidly developing Bitcoin 2.0 technologies, such as smart contracts and smart property. The commercialization of these technologies will usher in a whole new wave of legal issues.

