

CRYPTOCURRENCIES AND THE UNIFORM COMMERCIAL CODE: THE CURIOUS CASE OF BITCOIN

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I. Introduction.....	129
II. The Mechanics and Inner Workings of Bitcoin	130
III. Current Regulatory Framework.....	132
A. Bitcoin as a Currency	132
B. Bitcoin as Property	134
C. Bitcoin as a Security	134
D. Bitcoin as a Commodity	136
E. Bitcoin Classification in Court Rulings	137
IV. Bitcoin Under the Uniform Commercial Code.....	138
V. Towards a New Regulatory Framework.....	142
VI. Conclusion	144

I. INTRODUCTION

Virtual currencies have been gaining traction in the media and markets, with Bitcoin as its most well-known cryptocurrency. They are defined as “digital representations of value, issued by private developers and denominated in their own unit of account.”¹ Advocates praise their decentralized nature, transparency, convenience, and anonymity. Virtual currencies “can be obtained, stored, accessed, and transacted electronically, and can be used for a variety of purposes, as long as the transacting parties agree to use them.”²

Bitcoin was originally introduced as a white paper by an anonymous author or authors under the pseudonym Satoshi Nakamoto in 2008, primarily as a way to negotiate in the Internet’s black market.³ Throughout the years, it has grown in popularity to encompass several sectors and a diversity of uses. Transactions involving bitcoins are like cash payments and are practically anonymous, for the customer is not required to hand over substantial personal information through the use of the blockchain. However, recent federal regulations and court

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¹ DONG HE, *ET AL.*, VIRTUAL CURRENCIES AND BEYOND: INITIAL CONSIDERATIONS, IMF SDN/16/03, 7 (2016) <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>.

² *Id.*

³ James P. Gerkins & Serafima Krikunova, *Bitcoin and Other Virtual Currencies: Approaching U.S. Regulatory Acceptance*, 39 ADMIN. & REG. L. NEWS 4 (2014).

decisions are contradictory as to the true nature of bitcoins: is it property, a currency, a commodity, a security, or something entirely different requiring new legislation to promote its growth?

This article examines the current regulatory framework for Bitcoin and the implications of this virtual currency under the Uniform Commercial Code (hereinafter, U.C.C.), specifically under Article 9. In order to provide a background of how this particular virtual currency works Part II will explain the nature and inner workings of Bitcoin. Part III discusses the conflicting current regulatory framework that has been used to categorize Bitcoin by different federal agencies and court rulings. Part IV of this article proposes how Bitcoin can be categorized under Article 9 of the U.C.C. and, particularly, the implications of its categorization as a general intangible. Lastly, Part V provides arguments for a new regulatory framework away from the limiting definitions of the U.C.C. and the particular interests of parties in a case or of specific agencies, one that incorporates all the categories under which Bitcoin can fall and the advantages it has as a medium of exchange.

II. THE MECHANICS AND INNER WORKINGS OF BITCOIN

As previously discussed, virtual currencies are digital representations of value that are issued by private developers and that are not denominated in fiat currency, but rather have their own unit of account.⁴ Cryptocurrencies are decentralized, meaning there is no central party that administers or issues them, instead, there is “a framework of internal protocols that govern the operation of the system and allow the verification of transactions to be performed by the system participants themselves.”⁵ By operating as decentralized systems, users can make secured transactions, denominated in virtual coins that rely on encryption for security, which are carried out over virtual networks on the Internet.⁶

Additionally, most cryptocurrencies are pseudo-anonymous because users are solely known by addresses that cannot be easily traced back to their real-world identity, but that are publicly recorded in the blockchain.⁷ Lastly, cryptocurrencies derive their value from the expectation that others also value and use them. The main concern with respect to cryptocurrencies is that because of their rigid supply rules due to a fixed number of possible outstanding units, these virtual currencies can pose the risk of structural deflation.⁸ Money demand grows with the growth of the economy, but when the supply is fixed, a growing demand often leads to structural deflation because the supply cannot satisfy the demand.

Bitcoin is an open source, peer-to-peer, decentralized protocol that can be used as a payment system without the use of intermediaries; however, it can also be used as a digital currency.⁹ Bitcoin was created in 2008 by someone anonymously called Satoshi Nakamoto and it is a virtual currency that relies on the principles of cryptography by using a distributed database across nodes of peer-to-peer networks.¹⁰ Bitcoin was built upon the basis of cryptography and blockchain technology, which “are the foundational technologies accomplishing the tracking of

⁴ DONG HE, *ET AL.*, *supra* note 1.

⁵ *Id.* at 9.

⁶ Sam Hampton, *Undermining Bitcoin*, 11 WASH. J. L. TECH. & ARTS 331, 335 (2016).

⁷ DONG HE, *supra* note 1, at 9.

⁸ *Id.* at 34.

⁹ Jeanne L. Schroeder, *Bitcoin and the Uniform Commercial Code*, 24 U. MIAMI BUS. L. REV. 1, 10 (2016).

¹⁰ Octav Neguriță, *Bitcoin – Between Legal and Financial Performance*, 6 CONTEMP. READINGS L. & SOC. JUST. 242 (2014).

transactions without requiring third party verification.”¹¹ No legal entity controls or administers Bitcoin, while no sovereign or commodity backs the currency; consequently, “the value of a [B]itcoin is determined solely by public perception, trust, and adoption, causing great volatility.”¹² The blockchain means that, although at its conception Bitcoin prided itself in being anonymous, it is in fact pseudonymous.¹³ As a result, there is a public record and chain of custody of each Bitcoin, although publicly the identity of the owner may remain unknown.¹⁴

Bitcoins are generated by a process called mining, in which computer programmers known as miners solve complex math problems based on cryptography and, consequently, are rewarded with bitcoins that are stored in a digital wallet, from which miners can electronically distribute them.¹⁵ Additionally, “the Bitcoin algorithm is programmed to release bitcoins in decreasing quantities up to a total of twenty-one million bitcoins. No additional bitcoins will be created once this number is reached.”¹⁶ Besides mining, “users may also obtain bitcoins by purchasing them on various online exchanges, through peer-to-peer transfers, or by receiving them as payment for a product or service.”¹⁷ Transactions are completed “between Bitcoin addresses, which are somewhat like email addresses, though it is important to note that any individual user could control many addresses.”¹⁸ Each transaction has a private key, with exchanges and all transactions are being recorded on a public ledger, which is known as the blockchain.¹⁹ The blockchain is searchable in terms of addresses and transactions,²⁰ which are carried out in the following manner:

To transfer [B]itcoin out of one’s digital wallet, the owner must enter in an account number, known as a public key, and a password or private key. Obviously, one could hide one’s actual identity behind these numbers, but sophisticated computer analyses have enabled large transactions to be tracked. Moreover, although owners theoretically do not need intermediaries to transfer bitcoins, in fact, a variety of intermediaries and exchanges have developed.²¹

Bitcoin has been growing in popularity as more and more businesses use it as a digital form of cash to purchase goods and services.²² Moreover, businesses are using bitcoins in novel ways to perform transactions that at Bitcoin’s conception were not even contemplated. For example:

Overstock, Inc. announced that it was issuing the first “cryptosecurity” —a Regulation D offering of bonds that will be recorded on a blockchain rather than a more traditional security transfer ledger. Overstock’s founder and Chief Executive Officer, Richard Byrne, known as a strong libertarian, has suggested that this may help free finance from the

¹¹ Gregory M. Karch, *Bitcoin, the Law and Emerging Public Policy: Towards a 21st Century Regulatory Scheme*, 10 FLA. A & M U. L. REV. 193, 194 (2014).

¹² Matthew Kien-Meng Ly, *Coining Bitcoin’s “Legal Bits”: Examining the Regulatory Framework for Bitcoin and Virtual Currencies*, 27 HARV. J. L. & TECH. 587, 590 (2014).

¹³ Schroeder, *supra* note 9, at 13.

¹⁴ Gerkis & Krikunova, *supra* note 3.

¹⁵ *Id.*

¹⁶ Kien-Meng Ly, *supra* note 13.

¹⁷ *Id.*

¹⁸ Hampton, *supra* note 7, at 336.

¹⁹ *Id.*

²⁰ *Id.* at 337.

²¹ Schroeder, *supra* note 9, at 13.

²² Kien-Meng Ly, *supra* note 13, at 591.

tyranny of the [S.E.C.] and the brokerage industry or, at least, prevent naked short-selling that he believes is used maliciously to drive down the price of issuer's stock.²³

Bitcoin's growth in popularity is primarily attributed to its benefits and advantages such as privacy, convenience, decentralized nature, and the ease of transfer. It also provides a quick, cheap, and private way to transfer currency across the globe to anyone with a digital wallet and an Internet connection without the need for a bank account.²⁴ Since Bitcoin transactions do not require an intermediary or central agency, it "provides users with high levels of privacy. Transferors and recipients of bitcoins remain nearly anonymous . . . [and] personal information [is not] available by cross-referencing account numbers."²⁵ Additionally, there are minimal or no associated transaction fees.²⁶

However, Bitcoin's pseudonymous ownership can pose certain risks, such as:

While there is a public ledger (the "blockchain") of all Bitcoin transactions, the parties' actual identities are not included because [b]itcoins are held at anonymous digital addresses through encrypted software programs . . . While the actual parties to a Bitcoin transaction might be identified through subpoenas, the necessary information might be outside the U.S.A. (and, therefore, beyond [a] Court's jurisdiction) or too expensive and/or time consuming to obtain.²⁷

Bitcoin's advantage as a decentralized virtual currency that is not subject to any specific regulation can also be a disadvantage. This poses a threat because "anyone can illegally enter in the system and generate a lot of [b]itcoins."²⁸ In turn, this causes Bitcoin's value to be volatile. Additionally, government regulations and intervention can hinder the cryptocurrency's performance, such as, when Bitcoin "experienced a dramatic price drop after regulators in China prohibited banks and payment companies from dealing with Bitcoin by classifying it as a commodity rather than a currency."²⁹

III. CURRENT REGULATORY FRAMEWORK

A. Bitcoin as a Currency

The U.C.C. defines money as "a medium of exchange currently authorized or adopted by a domestic or foreign government . . . includ[ing] a monetary unit of account established by an intergovernmental organization or by agreement between two or more countries."³⁰ On the other hand, the Department of Treasury and the Financial Crimes Enforcement Network (hereinafter, FinCEN) defines currency, also referred to as real currency, as "[t]he 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."³¹ However, contrary to real currencies, "virtual' currency is a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real

²³ Schroeder, *supra* note 9, at 7.

²⁴ Gerkis & Krikunova, *supra* note 3.

²⁵ Kien-Meng Ly, *supra* note 12, at 593.

²⁶ *Id.* at 594.

²⁷ Michael R. Gordon, *et al.*, *Bitcoin to Blockchain: How Laws and Regulations Are Conforming to and Impacting the Use of Virtual Currency*, 20160428P NYCBAR 1, 28 (2016).

²⁸ Neguriță, *supra* note 10, at 247.

²⁹ Gerkis & Krikunova, *supra* note 3.

³⁰ U.C.C. § 1-201(24) (2015).

³¹ 31 C.F.R. § 1010.100(m) (2016).

currency.”³² The FinCEN Guidance also adds that virtual currency does not have any legal tender status in any jurisdiction.³³ FinCEN concludes that convertible virtual currency, much like Bitcoin, “either has an equivalent value in real currency, or acts as a substitute for real currency.”³⁴ Consequently, it appears that this equivalent value or role as a substitute is how “FinCEN then concludes Bitcoin exchanges may be treated as money transmitters, by virtue of acting as a substitute for real currency.”³⁵

Moreover, FinCEN has ruled that “a user who obtains convertible virtual currency and uses it to purchase real or virtual goods or services is not [a money services business] under [the agency’s] regulations,”³⁶ but “an administrator or exchanger that (1) accepts and transmits a convertible virtual currency or (2) buys or sells convertible virtual currency for any reason is a money transmitter under FinCEN’s regulations, unless a limitation to or exemption from the definition applies to the person.”³⁷ The Guidance further adds that the definition of a money transmitter is not different for real currencies and convertible virtual currencies, but that a person is a money transmitter under the regulations implementing the Bank Secrecy Act when they accept and transmit anything of value that is substituted for currency.³⁸ Lastly, the Guidance concludes on decentralized convertible virtual currency by stating that:

A person that creates units of this convertible virtual currency and uses it to purchase real or virtual goods and services is a user of the convertible virtual currency and not subject to regulation as a money transmitter. By contrast, a person that creates units of convertible virtual currency and sells those units to another person for real currency or its equivalent is engaged in transmission to another location and is a money transmitter. In addition, a person is an exchanger and a money transmitter if the person accepts such [decentralized] convertible virtual currency from one person and transmits it to another person as part of the acceptance and transfer of currency, funds, or other value that substitutes for currency.³⁹

It is important to note, that the FinCEN ruling conflicts with the Internal Revenue Service (hereinafter, I.R.S.) decision classifying Bitcoin as property because “FinCEN applies money-laundering regulations against Bitcoin exchanges as if they are money transmitters, meaning FinCEN maintains that [B]itcoin is money or digital currency.”⁴⁰

Notwithstanding, some academics have argued that due to its inherent instability, Bitcoin cannot be a currency. This is “because [of] the built-in limits on the number of bitcoins that can exist, the value of bitcoins will continue to fluctuate radically and trend towards deflation,”⁴¹ making it difficult for Bitcoin to become customarily used and widely accepted by any country. Additionally, a literal application under the U.C.C. definition of money would likely lead to Bitcoin not being defined as a currency or money because it lacks the recognition

³² U.S. Dep’t of Treas., *Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, FIN-2013-G001, 1 (March 18, 2013), <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf> [hereinafter FinCEN].

³³ *Id.*

³⁴ *Id.*

³⁵ Karch, *supra* note 11, at 230.

³⁶ FinCEN, *supra* note 32, at 2.

³⁷ *Id.* at 3.

³⁸ *Id.* at 1.

³⁹ *Id.* at 5.

⁴⁰ Karch, *supra* note 11, at 232.

⁴¹ Mitchell Prentis, Note, *Digital Metal: Regulating Bitcoin as a Commodity*, 66 CASE W. RES. L. R. 609, 622 (2015).

by any state.⁴² However, the innovative nature of virtual currencies could result in the revision of the U.C.C. definition of money by limiting it to “a medium of exchange, regardless of its form and regardless of state backing or legal status by a government.”⁴³

B. Bitcoin as Property

The I.R.S. has defined virtual currency as a “digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value.”⁴⁴ When defining Bitcoin, the I.R.S. characterized it as a convertible virtual currency because it “can be digitally traded between users and can be purchased for, or exchanged into, U.S. dollars, Euros, and other real or virtual currencies.”⁴⁵ Moreover, the agency determined that for tax purposes Bitcoin and other virtual currencies would be classified and treated as property.⁴⁶ With this determination, the I.R.S. “has decided to disregard the characteristics of Bitcoin as a currency and a payment system.”⁴⁷

Nevertheless, this classification by the I.R.S. has been controversial. Taxpayers must now calculate for each virtual currency transaction the capital gains or losses when exchanging virtual currency for other property; consequently, all payments made with virtual currencies are subject to reporting.⁴⁸ What this means is that all taxpayers must calculate the fair market value whenever a Bitcoin is purchased or used in the purchase of goods and services. In the end, “by classifying [B]itcoin as property, the I.R.S. threatens the widespread consumer adoption of bitcoin[s].”⁴⁹ Additionally, the property definition might be off-putting because property does not tend to have the characteristic of anonymity like Bitcoin does; on the contrary, the American legal system has extensive case law, statutes, and regulations regarding the public status of ownership and property rights.⁵⁰

C. Bitcoin as a Security

Some have suggested that Bitcoin is a security, particularly under the dispositions of Article 8 of the U.C.C. For example, an owner of bitcoins could treat it as a financial asset by choosing “to hold it indirectly through a financial intermediary,”⁵¹ but this comes with the price of “eliminating one of the primary attractions of cryptocurrency, namely the ability to engage in financial transactions directly without a third-party intermediary.”⁵² To mitigate this effect, Bitcoin could be classified under uncertificated securities, although these dispositions were created in a time when cryptocurrencies were beyond the wildest imagination of the U.C.C.’s drafters.⁵³

Nonetheless, it is likely that the suggestion of classifying Bitcoin as a security has become popular because many buy bitcoins as an investment part of their portfolio. Moreover,

⁴² Karch, *supra* note 12, at 231.

⁴³ *Id.*

⁴⁴ I.R.S. Notice 2014-21, 2014-16 I.R.B. 938, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> [hereinafter I.R.S.].

⁴⁵ *Id.*

⁴⁶ *Id.* at 2.

⁴⁷ Karch, *supra* note 11, at 228.

⁴⁸ Seth Litwack, *Bitcoin: Currency or Fool's Gold?: A Comparative Analysis of the Legal Classification of Bitcoin*, 29 TEMP. INT'L & COMP. L. J. 309, 332 (2015).

⁴⁹ *Id.* at 333.

⁵⁰ Karch, *supra* note 11, at 239.

⁵¹ Schroeder, *supra* note 9, at 9.

⁵² *Id.*

⁵³ *Id.*

treating Bitcoin as a security could be attractive because of the ample securities regulations that the United States has in place. However, since bitcoins have a decentralized operating framework and are not a backed form of exchange, it is unclear whether Bitcoin meets one of the defining characteristics of a security, which is a claim against an issuer or entity.⁵⁴ If Bitcoin has any possibility of being considered a security, it will be because it meets the requirements of the catchall classification of the investment contract.⁵⁵

The United States Supreme Court, in *S.E.C. v. W.J. Howey Co.*,⁵⁶ first laid out the standard for what is a security, particularly an investment contract. In this particular case the Court had to determine if the sale of a portion of an orange grove, including the service contract for its maintenance, was an investment contract security. The Court concluded that the transactions in the case constituted investment contracts.⁵⁷ However, since the term investment contract was undefined by the Securities Act or by relevant legislative reports, the Court used this case to define what was an investment contract and concluded:

[A]n investment contract for purposes of the Securities Act means a contract, transaction or scheme whereby a person invests his money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party, it being immaterial whether the shares in the enterprise are evidenced by formal certificates or by nominal interests in the physical assets employed in the enterprise.⁵⁸

Using the *Howey Test*, Bitcoin most likely would not be classified as a security and, ultimately, as an investment contract. Although “Bitcoin likely satisfies the first prong of the *Howey* investment test and meets the requirement for an investment of money because bitcoins have value,”⁵⁹ it would likely not satisfy the remaining two elements. It is difficult to find commonality within Bitcoin because it is hard to determine what the common enterprise entails.⁶⁰

Courts analyze and define commonality within horizontal and vertical commonality.⁶¹ Under a horizontal commonality lens, “by buying a [B]itcoin, a person is taking a stake in how the Bitcoin system fares.”⁶² Nonetheless, people don’t solely buy bitcoins for this reason, but rather different people buy the cryptocurrency for different reasons ranging from an investment perspective to an electronic payment use. For this reason, “Bitcoin investors are likely far more concerned with the value of Bitcoin as a whole over the long term, while people only looking to use bitcoins to buy things are arguably more concerned with short term pricing, and whether the retailers they want to transact with will accept bitcoins.”⁶³ Due to the different motivations behind the purchase of bitcoins, the risks can be different; however, “[b]uyers’ risks differing with their motivations is not an issue for traditional securities, because an expectation of profit

⁵⁴ Prentis, *supra* note 41, at 622.

⁵⁵ *Id.* at 622–23.

⁵⁶ *S.E.C. v. W.J. Howey Co.*, 328 U.S. 293 (1946).

⁵⁷ *Id.* at 299.

⁵⁸ *Id.* at 298–99.

⁵⁹ Prentis, *supra* note 41, at 623.

⁶⁰ *Id.* at 624.

⁶¹ “Horizontal commonality examines the relationship between all investors in an enterprise and whether all the investors’ pooled funds are exposed to the same risks. In contrast, vertical commonality examines the relationship between investors and the promoter, and how closely the investors’ profit are tied to the promoter’s efforts.” *Id.*

⁶² *Id.*

⁶³ *Id.*

is a prerequisite for an investment to be a security, under the *Howey* Test.⁶⁴ Similarly, when viewed from a vertical commonality perspective, Bitcoin developers work independently from each other, seeking to make a profit for themselves and not for a general base of users. Consequently, due to the competing dynamic between developers, “it would be difficult to substantiate that they are all working together toward a common end.”⁶⁵ For these reasons, it cannot be concluded that bitcoins meet the commonality standard of the *Howey* Test.

Lastly, the third component of the *Howey* Test requires that investors expect profits from the efforts put forth by others. However, Bitcoin would most likely not satisfy this requirement due to the variety of reasons why people purchase or hold bitcoins. Most people hold “them with the expectation, or at least hope, that they will appreciate, because the limited number of merchants that accept bitcoins make them difficult to spend.”⁶⁶ Consequently, “[t]hose holding bitcoins solely for transacting business, however, would not likely satisfy this prong, for the same reason that it is generally accepted that a person who holds dollars does not expect to make a profit from holding them.”⁶⁷ Additionally, those who hold bitcoins expecting to make a profit don’t necessarily depend on the efforts of an intermediary but rather on the inherent qualities of Bitcoin itself, such as its usefulness, practicality, and scarcity.

D. Bitcoin as a Commodity

In 2015, the Commodity Futures Trading Commission concluded that Bitcoin and other virtual currencies were included in the definition of commodities.⁶⁸ A commodity is defined to include, among other things, “all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in.”⁶⁹ Additionally, “[s]ome countries, such as China, Japan, and Finland, have officially classified bitcoins as commodities.”⁷⁰ Moreover, Bitcoin could be a commodity because it acts as money within its community of users and, “from a pricing standpoint, it is valued like other commodities. The price of traditional commodities, like gold, silver, and agricultural products, vary in accordance with their demand and scarcity. When more people want a commodity that has a fixed supply, the price rises.”⁷¹ Bitcoins are naturally scarce because its algorithm has a set limit that can be created; therefore, they are considered rare, which leads users to pay increasing prices. As a result, the “value of a [B]itcoin is ultimately driven by supply and demand—a coin is worth whatever someone is willing to pay for it.”⁷² Additionally, Bitcoin possesses the characteristics necessary to be traded on a futures exchange:⁷³

Bitcoins are homogenous, imperishable, and susceptible to standardized grading, as all bitcoins are the same, and their quality does not vary. Further, a large supply of bitcoins exists, and demand for them fluctuates in an uncertain manner. And the Bitcoin market is

⁶⁴ *Id.*

⁶⁵ Prentis, *supra* note 41, at 625.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ In re Coinflip, Inc., C.F.T.C. Docket No. 15-29, 3 (Sept. 17, 2015), <http://www.cftc.gov/idc/groups/public/@lrenforcementactions/documents/legalpleading/enfcoinfliporder09172015.pdf>.

⁶⁹ 7 U.S.C. § 1a(9) (2016).

⁷⁰ Chelsea Deppert, *Bitcoin and Bankruptcy: Putting the Bits Together*, 32 EMORY BANKR. DEV. J. 123, 138 (2015).

⁷¹ Prentis, *supra* note 41, at 628.

⁷² *Id.* at 629.

⁷³ “In order to be traded on a futures exchange, a commodity must: 1) be homogenous; 2) be susceptible to standardized grading; 3) have large supply and demand; 4) have an unrestricted market; 5) have uncertain supply and demand; and 6) not be perishable.” *Id.* at 630–31.

unrestricted, as no single entity controls the supply or demand of bitcoins. There is nothing that conceptually prevents bitcoins from being traded on a futures contract. Two parties could easily contract for the sale of some amount of bitcoins at a present price, with the actual exchange of the bitcoins happening in the future. Furthermore, the risks of Bitcoin are such that futures trading would be beneficial to Bitcoin users; futures contracts would be of great use for companies being paid in bitcoins to protect against [B]itcoin price drops.⁷⁴

However, classifying bitcoins as a commodity could clash with other classifications given by different agencies or court rulings.

E. Bitcoin Classification in Court Rulings

To date, the most well-known case relating to the characterization of Bitcoin is *Sec. & Exch. Comm'n v. Shavers*,⁷⁵ in which “the U.S. District Court in Sherman, Texas held that bitcoin is a currency, but also meets the definition of an investment contract and/or note.”⁷⁶ The District Court found that “Shavers created and operated a Ponzi scheme called Bitcoin Savings and Trust (BTCST), defrauding investors of more than 700,000 bitcoin[s] worth \$4.5 million U.S. dollars at the time. He was able to solicit investments from users in various online forums and chats.”⁷⁷ The Securities and Exchange Commission (S.E.C.) argued that these investments were both investment contracts and notes; hence, they were securities. The court concluded that bitcoins could be used as money, even if only accepted by a limited amount of businesses or entities. Moreover, it also found that bitcoins can be used in the purchase of goods or services and that it can be exchanged for conventional currencies; therefore, Bitcoin is a currency or form of money constituting an investment of money in scenarios such as the one at controversy in the case.⁷⁸ Furthermore, the court held that “those who invested in BTCST ‘provided an investment of money’ via [B]itcoin, similar to using U.S. dollars to purchase stock in a corporation; therefore, according to the court, [B]itcoin is a currency.”⁷⁹

On the other hand, the first case in a bankruptcy court to address cryptocurrencies was *Hashfast Technologies LLC v. Lowe (In re Hashfast Technologies, LLC)*⁸⁰ in the state of California, which reached a conflicting ruling with the *S.E.C. v. Shavers* decision. The controversy was over a clawback motion involving a blogger that was paid to promote Hashfast Technologies LLC.⁸¹ The Court determined that, despite defendant’s arguments stating that the bitcoins were currency, Bitcoin is not United States dollars by stating:

The court does not need to decide whether [B]itcoin are currency or commodities for purposes of the fraudulent transfer provisions of the bankruptcy code. Rather, it is sufficient to determine that, despite defendant’s arguments to the contrary, [B]itcoin are not United States dollars.⁸²

⁷⁴ *Id.* at 631.

⁷⁵ *Sec. & Exch. Comm'n v. Shavers*, 2013 WL 4028182 (E.D. Tex. 2013).

⁷⁶ Litwack, *supra* note 48, at 333.

⁷⁷ *Id.* at 333–34.

⁷⁸ Gerkis & Krikunova, *supra* note 3, at 6.

⁷⁹ Litwack, *supra* note 48, at 334.

⁸⁰ *Hashfast Technologies, LLC v. Lowe (In re Hashfast Technologies, LLC)*, No. 14-30725 (Bankr. N.D. Cal. 2016) (order on motion for partial summary judgment), https://www.bloomberglaw.com/public/desktop/document/Kasol_as_v_Lowe_Docket_No_315ap03011_Bankr_ND_Cal_Feb_17_2015_Cour/5?1480287105.

⁸¹ Joyce E. Cutler, *Bitcoins Are Not Dollars in Bankruptcy Court*, 28 BNA BANKR. L. REP. 265 (2016).

⁸² *Hashfast Technologies*, No. 14-30725 at 1.

IV. BITCOIN UNDER THE UNIFORM COMMERCIAL CODE

Although it is not binding law, the Uniform Commercial Code has been adopted in one form or another by a majority of states and Puerto Rico. The U.C.C. includes a framework to govern sales and other commercial contracts. At a quick glance, it might appear that the U.C.C. can be used to validate Bitcoin transactions rather than limit them, regardless of how Bitcoin is classified. However, Article 9 poses a particular challenge to Bitcoin's advantages and can hinder its marketability, for depending on how Bitcoin is classified, attaching and perfecting a security interest may vary. This part will analyze how Bitcoin can be categorized under Article 9 of the U.C.C., particularly the implications of its categorization as a general intangible.

Article 9 governs security interests in personal property—including inventory, goods, and general intangibles, among others—called blanket liens. Generally speaking, when a portion of a debtor's general intangibles includes bitcoins, they “become subject to the blanket lien in which the creditor has a secured interest, assuming the lien has been perfected. However, if the debtor uses the bitcoins to purchase inventory . . . the creditor maintains a security interest in those bitcoins, which persists for subsequent transfers.”⁸³ Nevertheless, “Bitcoin's feasibility as a medium of exchange may nonetheless be challenged once the digital currency's increasing popularity pushes it to confront existing commercial law under the Uniform Commercial Code.”⁸⁴

As previously discussed, the U.C.C. defines money as:

[A] medium of exchange currently authorized or adopted by a domestic or foreign government. The term includes a monetary unit of account established by an intergovernmental organization or by agreement between two or more countries.⁸⁵

At first glance, it seems that Bitcoin cannot be treated as money because no government has adopted it as its currency. It appears that the U.C.C. has limited the definition of money to hand-to-hand currency because it does not include in its definition the most common form of money held in the United States—deposit accounts.⁸⁶ Moreover, Bitcoin's use as collateral if it were money would be difficult because it would be impossible to create a perfected security interest:

[P]ursuant to Sec. 9-312(b)(3) a non-proceeds “security interest in money may be perfected only by the secured party's taking possession.” This means that characterizing [B]itcoin as money under the U.C.C. would actually make it less able to function as a currency.⁸⁷

As a result, it is forceful to conclude that Bitcoin is not money and cannot be money nor a deposit account under the U.C.C.'s current definition.

If held directly by the owner, Bitcoin falls under the catchall category of general intangibles, which is defined as the personal property that does not fall within any other category.⁸⁸ If Bitcoin is a general intangible, then to perfect a security interest, “it should be

⁸³ Deppert, *supra* note 70, at 137.

⁸⁴ Nicolas Wenker, *Online Currencies, Real-World Chaos: The Struggle to Regulate the Rise of Bitcoin*, 19 TEX. R. L. & POL. 145, 190 (2014).

⁸⁵ U.C.C. §1-201(24) (2015).

⁸⁶ Schroeder, *supra* note 9, at 20.

⁸⁷ *Id.* at 23.

⁸⁸ See U.C.C. § 9-102(a)(43) (2015). “General intangible” means any personal property, including things in action, other than accounts, chattel paper, commercial tort claims, deposit accounts, documents, goods, instruments, investment property, letter-of-credit rights, letters of credit, money, and oil, gas, or other minerals before extraction.

enough for the creditor to obtain a Security Agreement sufficiently identifying the Collateral and make an Article 9/UCC-1 Filing.”⁸⁹ However, this characterization can negatively affect the marketability and the advantages of Bitcoin because general intangibles are not negotiable. This is due to the fact that “Article 9 has no negotiation rule for the buyers of general intangibles that are subject to a perfected security interest. That is, once a security interest in a general intangible is perfected, it survives even after multiple transfers to third parties.”⁹⁰

As pointed out by Professors Bob Lawless of the University of Illinois College of Law and Lynn LoPucki of the UCLA School of Law, the potential issue that arises under Article 9 is the attachment and perfection of a security interest to Bitcoin depending on how it is classified.⁹¹ This part will be largely based off their analysis. For purpose of this analysis, let’s suppose a small family-run business sells clothes and other fashion items both to a local clientele and faithful online customers.⁹² Most of their business is conducted in cash, but seeing the growing popularity of Bitcoin as an online payment method, the owners decide to start allowing payments in this cryptocurrency, in order to expand their online presence and because they read that many Bitcoin holders have made large profits on their holdings. It is important to note, that the store has a line of credit with a bank that allows them to borrow at a predetermined rate, which they mainly use to pay suppliers. The terms of the store’s line of credit and loans that the bank provides are that the bank has a security interest in the store’s inventory, goods, accounts, equipment, and intangibles; hence, the bank has a blanket lien.

The problem that the owners could face with respect to Article 9 of the U.C.C. involves the attachment and perfection of a security interest over the bitcoins that the owners might receive as payment from their customers and wish to use in purchasing inventory or paying suppliers. When customers pay for a purchase using bitcoins, the store receives them in their digital wallet and gains possession over them. Consequently, if these bitcoins are viewed as property, much like the I.R.S. has ruled, then the bank’s blanket lien covers these bitcoins because they are the part of the store’s intangible property. For some, this might not be an issue because the argument could be that the owners are in the same position as if they received cash or money for their sales and used it to purchase inventory which is still covered by the bank’s blanket lien. However, if the storeowners want to pay suppliers with these bitcoins the scenario is different:

It is true that transferees of money take free and clear of a pre-existing security interest under [U.C.C.] § 9-332. However, whether or not a Bitcoin is “money” for other purposes, a Bitcoin does not appear to be “money” under the [U.C.C.] and, therefore, [U.C.C.] § 9-332 would not apply. In effect, under [U.C.C.] § 1-201(b)(24), “money” is a “medium of exchange currently authorized or adopted by a domestic or foreign government” and Bitcoins are not authorized or adopted by governments. Perhaps a secured creditor could authorize Bitcoin dispositions for ordinary course operations, but it is unclear how a transferee would confirm that all liens that previously attached to the relevant Bitcoins

The term includes payment intangibles and software. *Id.*

⁸⁹ Gordon *et al.*, *supra* note 27, at 35.

⁹⁰ Schroeder, *supra* note 9, at 30.

⁹¹ Bob Lawless, *Is UCC Article 9 the Achilles Heel of Bitcoin?*, CREDIT SLIPS (Mar. 10, 2014, 8:17 PM), <http://www.creditslips.org/creditslips/2014/03/is-ucc-article-9-the-achilles-heel-of-bitcoin.html>.

⁹² This scenario is based on a real-life example of a bakery accepting payments in Bitcoin, which is described and discussed by Lawless in his article. *Id.*

have been released.⁹³

Specifically, returning to our family-run store example, let us assume that one of the store's suppliers accepts payments in Bitcoin and the owners want to start paying for their purchases with their holdings. Under the U.C.C., the security interest that the bank acquired in the store's property "continues in collateral notwithstanding sale, lease, license, exchange, or other disposition thereof unless the secured party authorized the disposition free of the security interest."⁹⁴ Consequently, unless the bank authorizes the disposition of the asset free and clear of any and all security interests, the bank retains their blanket lien on the store's bitcoins, even if the cryptocurrencies are now under the possession of the suppliers.⁹⁵ The bank's security interest will continue through all subsequent transfers.⁹⁶ Additionally, "a security interest created by a debtor is subordinate to a security interest in the same collateral created by another person if: (1) the debtor acquired the collateral subject to the security interest created by the other person."⁹⁷ This means that, even when the new owner attaches a security interest to the collateral, the bitcoins in this example, this security interest is subordinate to the previous liens on the property, even those made by previous owners; hence, in this example, the bank has priority over all other creditors with a security interest in the bitcoins.

One could argue that the U.C.C. has specific dispositions to protect buyers in the ordinary course. However, these provisions apply to the goods defined within the U.C.C., which exclude general intangibles.⁹⁸ This protection is designed to eliminate security interests in goods when purchased in commercial transactions; therefore, "a buyer in ordinary course of business . . . takes free of a security interest created by the buyer's seller, even if the security interest is perfected and the buyer knows of its existence."⁹⁹ Nonetheless, when defining goods, the U.C.C. definition excludes accounts, general intangibles and investment property, among others,¹⁰⁰ which are essentially all the categories under which Bitcoin might fall. Consequently, the bank would retain its security interest over the store's bitcoins.

As Professors Lawless and LoPucki discuss, the problem of the security interest over Bitcoin comes not only when attaching or perfecting said interest, but also when the bank wants to call in its interest in the Bitcoin collateral if and when the debtors default on their loan.¹⁰¹ Returning to my example, assume that the storeowners are three months behind on their loan payments, which the bank considers a default. Now, the bank has the option to retrieve the collateral included in the blanket lien to satisfy the debt, this includes the bitcoins, regardless of who has possession of them. The problem that this action poses is that it hampers the advantages and marketability of Bitcoin as a commercial asset or form of payment, which might lead to fewer businesses and individuals accepting the cryptocurrency as a form of payment because of the possibility of there being an attached and perfected lien over the property.¹⁰² However, this would not be a problem if bitcoins were viewed as currency or money.¹⁰³ Pursuant

⁹³ Gordon et al., *supra* note 27, at 36.

⁹⁴ U.C.C. § 9-315(a)(1) (2015).

⁹⁵ Lawless, *supra* note 91.

⁹⁶ *Id.*

⁹⁷ U.C.C. § 9-325(a)(1) (2015).

⁹⁸ Lawless, *supra* note 91.

⁹⁹ U.C.C. § 9-320(a) (2015).

¹⁰⁰ U.C.C. § 9-102(44) (2015).

¹⁰¹ Lawless, *supra* note 91.

¹⁰² *Id.*

¹⁰³ *Id.*

to the U.C.C., “[a] transferee of money takes the money free of a security interest unless the transferee acts in collusion with the debtor in violating the rights of the secured party.”¹⁰⁴ Consequently, if bitcoins were considered money, the cryptocurrency could serve as collateral to a loan, but if transferred, the security interest would not follow it; hence, the current owners of the bitcoins are not at risk of having their holdings taken because of the default of some other debtor.¹⁰⁵ Nevertheless, as previously discussed, Bitcoin does not meet the current definition of money under the U.C.C.; therefore, for it to be classified as money, it would have to be recognized as such by the government or a foreign state or the U.C.C. definition would need to be changed.

Bitcoin has the potential to be used as collateral under the limits of Article 9 of the U.C.C.; however, “creditors are likely more concerned with restricting Bitcoin acquisition or use by borrowers due to the uncertain regulatory landscape, irreversible nature of payments, extreme volatility of value, and anonymity of the system.”¹⁰⁶ Moreover, perfecting a security interest in Bitcoin can be challenging due to the following:

Identifying the appropriate wallet may be difficult or impossible due to the system’s anonymity. Bitcoin is not tangible and therefore it does not appear possible to perfect by possession, nor is a Bitcoin wallet a bank deposit account, meaning it does not appear possible to perfect by control either. Instead, if a wallet is identified, the collateral description in the security agreement should be broadened to cover it, and the security interest perfected by filing a [U.C.C.] financing statement. Should a borrower transfer collateral funds out of a Bitcoin wallet, it is likely impossible for a creditor to recover since transactions cannot be reversed. Once again, without a control agreement, the option of sweeping the Bitcoin wallet is not available.¹⁰⁷

All in all, “[r]emoving funds from a payment platform account such as a Bitcoin exchange through a UCC-1 is therefore a lengthier, more expensive, and more uncertain process than exercising control agreements over the actual bank deposit accounts of debtors.”¹⁰⁸ This, “combined with the general anonymity and volatility of the digital currency, [might be] good reasons why creditors may prefer to have nothing to do with borrowers’ Bitcoins.”¹⁰⁹

Even if a secured creditor has a valid, perfected security interest in bitcoins, the concern arises of whether the secured creditor would have an effective remedy over the collateral in case of default. This is due to the fact that Bitcoin transactions are recorded on the blockchain, are pseudonymous, and are irreversible; hence, upon default, “a secured creditor would have difficulty learning that Bitcoin collateral had been transferred or identifying the transferee . . . [and] would have no rapid mechanism to prevent the debtor from transferring Bitcoins (unlike when a secured creditor has a control agreement with a bank and can sweep an account).”¹¹⁰ Lastly, “there is a question as to whether Bitcoins can be described with sufficient specificity to create and perfect a security interest [because,] although each Bitcoin is unique, Bitcoin

¹⁰⁴ U.C.C. § 9-332(a) (2015).

¹⁰⁵ Lawless, *supra* note 91.

¹⁰⁶ Pamela J. Martinson & Christopher P. Masterson, *The Hazards of Lending to Bitcoin Users*, AMERICAN BANKER (Jan. 2, 2014), <http://www.americanbanker.com/bankthink/the-hazards-of-lending-to-bitcoin-users-1064622-1.html> (last visited Aug. 6, 2017).

¹⁰⁷ *Id.*

¹⁰⁸ Wenker, *supra* note 84, at 193.

¹⁰⁹ *Id.*

¹¹⁰ Gordon et al., *supra* note 27, at 36.

exchanges might place all [b]itcoins into a single pot and Bitcoin wallets present an anonymity issue.”¹¹¹

V. TOWARDS A NEW REGULATORY FRAMEWORK

Due to Bitcoin’s innovative and transformative nature and framework, it merits that the regulation and policy regarding this cryptocurrency and others be as unique as the actual digital currency. Some have suggested that this regulation should not come from court rulings or from individual agencies, but rather from Congress by taking into account what the Bitcoin community values and concludes that would work because, ultimately, Congress cannot legislate something that it doesn’t know or fully comprehend.¹¹² There is no constitutional impediment for Bitcoin to be regulated as an alternative currency, as long as it “does not aim to deceive or mimic United States currency.”¹¹³ Yet, the main concern is the inconsistent classification that has been given to Bitcoin throughout a variety of federal agencies and different court rulings; this, in turn, “suggests the need for legislative action to provide a definitive and conclusive classification or classifications for Bitcoin and digital currencies.”¹¹⁴

Some have argued that the best approach would be to amend the U.C.C., particularly, that “for [B]itcoin really to take off as a payment system, let alone a currency, it may be necessary to amend the U.C.C. to add a super-negotiability rule for cryptocurrency.”¹¹⁵ On the other hand, Bitcoin’s classification under the U.C.C. might require the following hypothetical solutions:

[R]evising the UCC definition of money, convincing the U.S. or a foreign jurisdiction to officially authorize or adopt Bitcoin as a recognized medium of exchange, or hoping that courts generally become willing to apply [U.C.C.] legal “outs” for Bitcoin collateral (such as the “equitable principles” directive for resolving debtors’ comingled accounts).¹¹⁶

Nonetheless, amending the U.C.C. would be a difficult task that would not necessarily lead to a uniform classification of Bitcoin because it would not be binding for all 50 states and territories, unless, the local state governments opt to adopt the amendment.

On the other hand, others have discussed the possibility of classifying Bitcoin as both a currency and an investment/asset as a balance between the advantages and the novelties that the cryptocurrency has introduced in the current market landscape, so as not to stifle its growth and further innovation.¹¹⁷ The main goals pursued with this approach, due to Bitcoin’s decentralized structure, are that this classification allows government to effectively “tax huge sources of revenue, protect individuals using [B]itcoin, and prevent crime through the usage of [B]itcoin.”¹¹⁸ Additionally, “governments of other nations [have] recognize[d] this complex nature, and many have determined that the best [way is] to regulate and tax [B]itcoin as both a currency and investment/asset.”¹¹⁹ Ultimately, “the role of the government in regulating [B]itcoin

¹¹¹ *Id.*

¹¹² Karch, *supra* note 11, at 242–43.

¹¹³ *Id.* at 225.

¹¹⁴ *Id.*

¹¹⁵ Shroeder, *supra* note 9, at 18.

¹¹⁶ Wenker, *supra* note 84, at 192.

¹¹⁷ See Litwack, *supra* note 48, at 346.

¹¹⁸ *Id.* at 346–7.

¹¹⁹ *Id.* at 347.

should be to maximize the overall advantages and minimize the risk.”¹²⁰

Arguably, the best approach is for Congress to give Bitcoin legitimacy through a unique classification and treatment as a “dynamic new technology, broadly classified to encompass all of its qualities and develop a legal and regulatory framework that recognizes its unique characteristics.”¹²¹ The current problem is that a sole classification that takes into account only one characteristic will be flawed because regulators will take the approach most beneficial to their interests, in sum:

The [I.R.S.] views Bitcoin as property because that is the best definition for generating maximum tax revenue. FinCEN has defined Bitcoin as currency to ensure Bitcoin falls under the money laundering statutes and enable FinCEN to pursue those engaging in money laundering through Bitcoin. The [S.E.C.] persuaded a district court to define Bitcoin as currency in order to establish the purchase of investments and its jurisdiction of the sale of securities in a Ponzi scheme funded by Bitcoin.¹²²

Consequently, government officials, mainly Congress, should assess and evaluate Bitcoin from a larger perspective because “Bitcoin more and more seems to be its own category, encompassing the characteristics of a commodity, a currency, an investment or security, a payment system, and, probably least of all, an asset or property.”¹²³ As a result, the classification must encompass all of these characteristics because “[a] classification embracing its full capacity as a currency, a commodity, a payments system, and future uses would provide an optimal foundation to advance Bitcoin by establishing credibility and certainty, leading to substantial transformative technologies.”¹²⁴

The International Monetary Fund has proposed some regulatory principles for nations to follow in preparing their virtual currency and cryptocurrency regulations.¹²⁵ Regulator flexibility to the innovative nature of Bitcoin and similar digital currencies is the main factor as “[r]egulatory responses should be commensurate to the risks without stifling innovation . . . [and] should adapt to the changes in the [virtual currency] landscape.”¹²⁶ Future regulations and public policy must “take into account the novel business models inherent in [virtual currency] schemes.”¹²⁷ Moreover, regulations will need to address intermediary participation in the sale and purchase of virtual currencies because “[t]he failure of an intermediary may have implications for the protection of consumers and the stability of the payments system . . . [and] regulators may need to consider imposing prudential regulatory requirements on [virtual currency] intermediaries.”¹²⁸ Finally, “[r]egulators should consider the potential implications of financial institutions (i) having [virtual currency] intermediaries as clients; (ii) holding [virtual currencies] as an investment; and (iii) performing the functions of [virtual currency] intermediaries.”¹²⁹ Consequently, the factors to consider are whether to “[p]rohibit any interaction between the financial institutions and the [virtual currency] market; [a]llow a

¹²⁰ *Id.*

¹²¹ Karch, *supra* note 11, at 225–26.

¹²² *Id.* at 240.

¹²³ *Id.* at 239.

¹²⁴ *Id.* at 226.

¹²⁵ DONG HE, *ET AL.*, *supra* note 1, at 35–36.

¹²⁶ *Id.* at 35.

¹²⁷ *Id.* at 36.

¹²⁸ *Id.*

¹²⁹ *Id.*

certain degree of integration; or [a]llow full integration.”¹³⁰

VI. CONCLUSION

It is undeniable that the popularity of virtual currencies and cryptocurrencies, such as Bitcoin, has been growing. Many praise their flexibility, pseudonymity, decentralization and convenience. Throughout its development, Bitcoin has taken various forms and uses. This has led to recent federal regulations and court decisions that are contradictory as to the true nature of Bitcoin: is it property, a currency, a commodity, a security, or something entirely different requiring new legislation to promote its growth? The conclusion seems to be that Bitcoin is all of the aforementioned, ultimately, being a specific and particular classification all by itself.

Regarding U.C.C. Article 9, the potential issue with Bitcoin's classification concerns the attachment of a security interest to the cryptocurrency when it is considered property or a general intangible. If a business or individual holds bitcoins at the time that a bank or financial lender gains a blanket lien over the borrower's personal property, then the bitcoins would be part of the loan collateral. Pursuant to U.C.C. regulations, this security interest would encumber the bitcoins through further transfers. This significantly hinders the feasibility and marketability of Bitcoin because not many merchants and individuals would be willing to accept a payment that could be taken from them in case of default by the original debtor. Notwithstanding, if Bitcoin were classified as a currency, these issues would not arise. However, Bitcoin does not fall within the U.C.C.'s definition of money and has not been recognized by any state government as money or currency.

Due to the aforementioned problems, the solution is a new regulatory framework away from the limiting definitions of the U.C.C. and the particular interests of parties in a case or of specific agencies, one that incorporates all the categories under which Bitcoin can fall and the advantages it has as a medium of exchange. Any final regulation should incorporate all of these qualities to ensure Bitcoin's credibility and legitimacy as a medium of exchange of value. Additionally, Congress should take action to provide uniformity in the classification of virtual currencies and cryptocurrencies, while also taking into account what the Bitcoin community values and concludes that would work, for Congress cannot legislate something that it doesn't know or fully comprehend.

¹³⁰ *Id.*