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Cara R. Baros

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Barter, Bearer, and Bitcoin: The Likely Future of Stateless Virtual Money

Cara R. Baros*

Over the past few years, virtual money has emerged via the Internet. Although currently unregulated, Internal Revenue System Notice 2014-21 will most likely cause virtual money to lose its mass appeal in the United States. Historically, other means of tax avoidance, including barter transactions and bearer bonds, have suffered the same fate. Virtual money will likely have more success as a technology than as a means of value.

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* Executive Editor, University of Miami Business Law Review, Candidate for Juris Doctor 2015, University of Miami School of Law. Undergraduate degree from University of Florida.

I. INTRODUCTION

By definition, “money” is something that is “generally accepted as a medium of exchange, a measure of value, or a means of payment.”¹ Money is constantly evolving and, over time, it has assumed different roles. The role of money has moved progressively from barter transactions, to physical money, to virtual money.

At one time, barter transactions were favored as a means to avoid taxation.² In fact, barter transactions were popular as recent as the 1980s through barter exchanges.³ In a barter transaction, a person can directly exchange a good for a service⁴ or, in a barter exchange, a person can indirectly barter.⁵ However, the Tax Reform Act of 1984⁶ taxed barter exchanges, which were previously able to escape taxation.⁷

Similar to barter transactions, bearer bonds were used as a means to avoid taxation.⁸ Bearer bonds are “bonds that are not registered on the books of the issuer.”⁹ The owner of the bond is able to receive interest payments by physically detaching a portion of the bond.¹⁰

Today, virtual money is one of the most recent evolutions of money. Virtual money is “unregulated digital currency that is issued and often controlled by its developers.”¹¹ The most prevalent form of virtual money is Bitcoin,¹² which was introduced in 2009.¹³ Since Bitcoin’s

¹ MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY 801 (11th ed. 2003).

² Robin Kaufman, “*Living on the Cheap, is Barter Better?: Revenue Rulings and a Selective Analysis of the Effect of TRA 84 on Barter Transactions*,” 37 U. FLA. L. REV. 641, 641 (1985) [hereinafter Kaufman].

³ *Id.*

⁴ The I.R.S. provides an example of a bartering transaction where a plumber exchanges plumbing services for the dental services of a dentist. *See Topic 420 – Bartering Income*, I.R.S. (August 19, 2014), <http://www.irs.gov/taxtopics/tc420.html>.

⁵ The I.R.S. recognizes a barter exchange as “an organization with members who contract with each other (or with the barter exchange) to exchange property or services. The term does not include arrangements that provide solely for the informal exchange of similar services on a noncommercial basis.” *Id.*

⁶ Tax Reform Act of 1984, Pub. L. No. 98-369, 98 Stat. 494 (Div. A).

⁷ Kaufman, *supra* note 2, at 645 (citing Tax Reform Act of 1984, Pub. L. No. 98-369, 98 Stat. 494, 678).

⁸ Guy Bernfeld, *Bearer Bonds: From Popular to Prohibited*, INVESTOPEDIA, <http://www.investopedia.com/articles/bonds/08/bearer-bond.asp> (last visited Sept. 16, 2014) [hereinafter Bernfeld].

⁹ BEARER BOND DEFINITION, NASDAQ, <http://www.nasdaq.com/investing/glossary/b/bearer-bond> (last visited Sept. 16, 2014).

¹⁰ *Id.*

¹¹ Aleksandra Bal, *Stateless Virtual Money in the Tax System*, 53 EUR. TAX’N 351, 351 (2013).

¹² Ryan Tracy, *Authorities See Worth of Bitcoin*, WALL ST. J. (Nov. 18, 2013), available at <http://online.wsj.com/articles/SB10001424052702304439804579205740125297358>.

inception, more than a handful of virtual money systems have surfaced on the market.¹⁴ Although virtual money is currently unrefined and fluctuating,¹⁵ it is being used as money,¹⁶ as currency,¹⁷ and as a store of value.

Many individuals, professionals, and organizations are drawn to virtual money because it seems to be a way to avoid taxation.¹⁸ However, the Internal Revenue Service (IRS) has issued a Notice on how to tax Bitcoin and similar types of virtual money.¹⁹ Because the IRS has suggested tax implications for Bitcoin it is likely that virtual currency will lose its mass appeal. This Comment looks at historical tax avoidance in order to predict how Bitcoin will progress as a means of value.

This Comment will look at barter transactions in Part II and bearer bonds in Part III and their respective treatments and outcomes after being recognized by the IRS. Then, this Comment will discuss how Bitcoin works, Bitcoin's challenges, and other virtual money in Part IV. Finally, this Comment considers tax consequences of virtual money, including its tax classification as property.

II. BARTER TRANSACTIONS

A. *BARTER TRANSACTION HISTORY*

According to the IRS a barter exchange is:

[A]ny person or organization with members or clients that contract with each other (or with the barter exchange) to jointly trade or barter property or services. The term does not include arrangements that provide

¹³ See Satoshi Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System 1 (unpublished manuscript), available at <http://Bitcoin.org/Bitcoin.pdf> [hereinafter Nakamoto].

¹⁴ Joe Light, *Virtual-Currency Craze Spawns Bitcoin Wannabes*, WALL ST. J. (Nov. 20, 2013), available at <http://online.wsj.com/articles/SB10001424052702304607104579210051252568362>.

¹⁵ *Id.*

¹⁶ "Money" is defined as, "[t]he medium of exchange authorized or adopted by a government as part of its currency; esp., domestic currency." See BLACK'S LAW DICTIONARY 1158 (10th ed. 2009).

¹⁷ "Currency" is defined as, "[a]n item (such as coin, government note, or banknote) that circulates as a medium of exchange." *Id.* at 465.

¹⁸ Daniela Rosette, *The Application of Real World Rules to Banks in Online Games and Virtual Worlds*, 16 U. MIAMI BUS. L. REV. 299 (2008) (discussing tax avoidance and virtual money).

¹⁹ I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

solely for the informal exchange of similar services on a noncommercial basis.²⁰

In a barter exchange, there is often no exchange of cash.²¹ “Barter may take place on an informal one-on-one basis between individuals and businesses, or it can take place on a third party basis through a barter exchange company.”²² Barter exchanges have been popular throughout time as a way for people to acquire the goods and services that they want, usually without paying tax. It is seen as its own economy; considered to be part of the underground or shadow economy.²³ “For businesses that barter, barter is a way to get rid of ‘distress merchandise’ or to acquire inventory without cash outflow or the cost of stockpiling.”²⁴

Barter exchanges typically operate using trade credits or trade dollars in order to keep track of the value of the goods or services that they receive.²⁵ However, according to the IRS “[e]arning trade or barter dollars through a barter exchange is considered taxable income, just as if your product or service was sold for cash.”²⁶ Thus, trade credits are reportable income. The IRS has stated that “[t]he recipient of bartered property or services must treat the fair market value of that property or services the same as cash for federal income tax purposes regardless of whether the recipient was bartering on a commercial basis or merely informally.”²⁷

At one time, barter transactions were a way to avoid taxation.²⁸ However, as soon as there was a public insurgence in bartering transactions, the IRS tightened-up on tax compliance in order to prevent income tax evasion.²⁹ Although the IRS concentrates its regulation on all types of barter transactions, its focus is on the regulation of barter exchanges.³⁰

Since the regulation of barter exchanges, “bartering has no tax advantages over cash transactions any more. Before, the only advantage

²⁰ BARTERING TAX CENTER, I.R.S., <http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Bartering-Tax-Center> (last visited Oct. 28, 2014).

²¹ BARTER EXCHANGES, I.R.S., <http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Barter-Exchanges> (last visited Oct. 28, 2014).

²² *Id.*

²³ Kaufman, *supra* note 2, at 642.

²⁴ *Id.* at 643.

²⁵ Barter Exchanges, *supra* note 21.

²⁶ *Id.*

²⁷ Sergio Pareja, *It Taxes a Village: The Problem with Routinely Taxing Barter Transactions*, 59 CATH. U. L. REV. 785, 787 (2010) [hereinafter Pareja].

²⁸ Kaufman, *supra* note 2, at 641.

²⁹ *Id.* at 641.

³⁰ *Id.*

was the ability to avoid taxation and that was only because the Service did not have the manpower to catch the tax evaders. New filing requirements and a powerful computer have alleviated this problem.”³¹

In *U.S. v. Barter Systems, Inc.*, an issue arose on how to properly issue a summons to investigate tax liabilities on named and unnamed parties. While that issue is not pertinent to this discussion, the explanation of the way a barter exchange works is useful.³²

A barter exchange acts as a clearinghouse for the purchase of goods and services by exchange members. Trading between exchange members is conducted in “barter units” with no cash changing hands. If an exchange member wishes to purchase certain goods or services, he [or she] obtains a referral by the exchange to a “providing member” who supplies the desired goods or services. When the purchasing and providing members have agreed on prices and terms, the providing member contacts the exchange. If the exchange determines that the purchasing member has sufficient barter units in his account, it authorizes the trade. For facilitating such barter exchanges . . . [the barter exchange] charges its members a fee of ten percent of the value of each transaction, payable in barter units and credited to [the exchange’s] account. [It] also charges its members an initiation fee and annual dues, both paid in cash. These transactions result in tax consequences for [the exchange] as well as for exchange members engaging in them.

On September 19, 1979, the IRS issued a directive establishing the Barter Exchange Project Unreported Income Program. The purpose of the project was to ‘identify and select returns in need of examination that are associated with organized barter exchanges . . . [including] the returns of bartering exchanges, owners and operators and members of such exchanges’ . . . The procedures described in the September 19, 1979, directive were formally

³¹ *Id.* at 670.

³² *See generally* *U.S. v. Barter Systems, Inc.*, 694 F.2d 163, 164 (8th Cir. 1982).

incorporated into the IRS' Manual Supplement on March 11, 1980.³³

The summons issued by the IRS revenue agent auditing the defendant in *Barter Systems Inc.* included requests for the following items:

1. Books, papers, account cards or other records upon which the following information is recorded:
 - (A) All members' names and account numbers;
 - (B) Exchange member transactions including the price and/or trade units assigned to goods or services rendered or received
 - (C) All initiation or membership fees, and other income, including commissions on members' transactions.
2. The disbursements journal and trade credit ledger.
3. All monthly account statements for each exchange member.³⁴

The district court found that one of the purposes of the barter exchange audit was to aid in the investigation of unknown members of the exchange as a part of the IRS' barter exchange initiative.³⁵

Under section 7602 of the Internal Revenue Code, the IRS has broad powers 'to examine any books, papers, records, or other data which may be relevant' to investigating a person's compliance with the internal revenue laws.³⁶

If the IRS wishes to examine the tax liabilities of unnamed or unknown taxpayers, it may issue 'John Doe' summons to a third party who possesses that information necessary to identify the unnamed taxpayers.³⁷

³³ *Id.*

³⁴ *Id.* at 165.

³⁵ *See generally Barter Systems, Inc.*, 694 F.2d at 165.

³⁶ *Id.* (citing 26 U.S.C. § 7602 (1976)).

³⁷ *Id.*

In order to qualify what might turn into an unregulated “hunt” of unnamed or unknown taxpayers, Congress enacted section 7609(f) as part of the Tax Reform Act of 1976, which provides additional standards in order for the IRS to pursue a John Doe summons.³⁸ The controls are as follows:

Any summons described in subsection (c) which does not identify the person with respect to whose liability the summons is issued may be served only after a court proceeding in which the Secretary establishes that-

- (1) the summons relates to the investigation of a particular person or ascertainable group or class of persons,
- (2) there is a reasonable basis for believing that such person or group or class of persons may fail or may have failed to comply with any provision of any internal revenue law, and
- (3) the information sought to be obtained from the examination of the records (and the identity of the person or persons with respect to whose liability the summons is issued) is not readily available from other sources.³⁹

In reviewing the district court’s decision, the Eighth Circuit Court of Appeals concluded that the summons issued to the barter exchange was for a legitimate purpose.⁴⁰ Thus, the IRS can issue a summons in order to gain information about unknown or unnamed taxpayers.

The IRS has the power to command information from exchanges. This notion has a large impact on how the IRS will affect Bitcoin. The IRS could simply serve a request under section 7602 and find out who is participating in a Bitcoin exchange. This takes away from one of the allures of Bitcoin, that it is, mostly, an anonymous form of payment.

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

B. *BARTER TRANSACTION AND BITCOIN*

There is also a lot to learn from the complicated way that the IRS chose to tax barter transactions. The IRS definition of barter has misled many people in reporting their taxable income.⁴¹

A barter exchange is any person or organization with members or clients that contact with each other (or with the barter exchange) to jointly trade or barter property or services. The term does not include arrangements that provide solely for the informal exchange of similar services on a noncommercial basis.⁴²

This definition has caused people to argue that noncommercial barter transactions are not taxable—which is not correct.⁴³ The law actually means that the person or organization conducting the transaction has the responsibility of reporting the transaction.⁴⁴

It is easy to predict that the same miscommunication will happen with Bitcoin. Just like barter transactions, all exchanges of Bitcoin will be subject to tax, and not just those that are converted on a Bitcoin exchange.

However, it does seem probable that the IRS would attempt to regulate the taxation of Bitcoin in a similar way. The largest volume of Bitcoin transactions will occur through the major exchanges and trusts, which will make Bitcoin interaction easier for people and companies because the exchanges will shoulder the IRS-mandated reporting responsibilities.

III. BEARER BONDS

A. *BEARER BOND HISTORY*

Bearer bonds are a type of bond that was popular in the 1980s. Bearer bonds are still in circulation today, but they are not nearly as popular as they used to be because of IRS treatment.⁴⁵

“Bearer bonds are bonds that are owned by whoever is holding them, rather than having registered owners like most other securities.”⁴⁶ People

⁴¹ Kaufman, *supra* note 2, at 788.

⁴² Bartering Tax Center, *supra* note 20.

⁴³ Kaufman, *supra* note 2, at 644 n. 35.

⁴⁴ *Id.*

⁴⁵ Michael Quint, *Elements in Bearer Bond Issue*, N.Y. TIMES, (August 14, 1984), available at <http://www.nytimes.com/1984/08/14/business/elements-in-bearer-bond-issue.html>.

generally choose bearer bonds because their interest is easily transferred.⁴⁷ “However, in the 20th century, that ease of ownership transfer and the characteristic anonymity afforded holders of bearer bonds were very often exploited to evade taxes or conceal business transaction. In response, new issuances of bearer bonds were banned in the United States in 1982.”⁴⁸

The bonds are still issued by U.S. businesses in foreign markets to foreign individuals according to the IRS.⁴⁹ “Bearer bonds are also called coupon bonds because the physical bond certificates have coupons attached to them that can be redeemed at an authorized agent bank for biannual interest payments”⁵⁰

Ultimately, “[t]he Internal Revenue Service, as expected, proposed regulations today that would virtually destroy the attractiveness of a new type of bank deposit that has proliferated because of the tax evasion opportunity it offers to small investors.”⁵¹ Thus, because bearer bonds created a type of tax haven, the IRS caught on and restricted their issuance.

In 2010, Congress passed restrictions on the issuance of bearer bonds in foreign countries,⁵² which took effect in 2012.⁵³ The IRS issued guidance on how to treat bearer bonds, which are often used by companies in the United States to issue debt in foreign countries.⁵⁴ “This repeal will likely dissuade many U.S. issuers from issuing bearer bonds, as they will no longer be entitled to tax the benefit of deductions for interest paid on such bonds.”⁵⁵ “The IRS cannot determine for tax purposes who receives interest payments from bearer bonds because of the way they are sold and held in foreign countries.”⁵⁶

Now, an issuer may not deduct interest paid with respect to such obligation and is subject to an excise tax equal to one percent of the

⁴⁶ Bernfeld, *supra*, note 8.

⁴⁷ *Id.*

⁴⁸ Tax Equity and Fiscal Responsibility Act of 1982, Pub.L. No. 97–248, 96 Stat. 324 (1982) [hereinafter Tax Equity and Fiscal Responsibility Act].

⁴⁹ Patrick Temple-West, *IRS Bearer Bond Tax Guidance Leaves Issuers Uneasy*, REUTERS, (Mar. 7, 2012, 6:23 PM), <http://www.reuters.com/article/2012/03/07/usa-tax-irs-bearerbonds-idUSL2E8E6CDP20120307> [hereinafter Temple-West].

⁵⁰ Bernfeld, *supra* note 8.

⁵¹ Deborah Rankin, *I.R.S. Moves to Bar Tax Evasion on ‘Bearer Bond’ Certificates*, N.Y. TIMES, Mar. 10, 1978, at D2.

⁵² Hiring Incentives to Restore Employment Act, 26 U.S.C. §§1471–1474 (2010).

⁵³ Temple-West, *supra* note 49.

⁵⁴ Tax Equity and Fiscal Responsibility Act, *supra* note 48.

⁵⁵ Kristen Chang Winckler & Marcia N. Persaud, *Repeal of Bearer Bond Exception Effective March 19, 2012*, PAUL HASTINGS (Mar. 2012), available at <http://www.paulhastings.com/Resources/Upload/Publications/2135.pdf> [hereinafter Winckler].

⁵⁶ Temple-West, *supra* note 49.

principal amount of the obligation multiplied by the number of calendar years (or portions thereof) between the issue date and the maturity date of such obligation.⁵⁷

The law issues penalties on companies and bondholders for not reporting bearer bond interest to the IRS.⁵⁸ “Companies have already started shifting away from issuing bearer bonds. That trend could accelerate without ‘iron-clad’ guidance from the U.S. government”⁵⁹

Now, in an effort towards tax reporting and transparency, “[i]n order to locate the owners of currently outstanding bearer bonds, it is now required that anyone depositing coupons must furnish a name, address and Social Security number to the bank at the time of each deposit.”⁶⁰ The information then becomes immediately available to the IRS.

In Publication 1212, the IRS addressed how bearer bonds should be handled.⁶¹ “If a coupon from a bearer bond is presented to you for collection before the bond matures, you generally must report the interest on Form 1099-INT.”⁶² Further, “[b]ecause you cannot assume the presenter of the coupon also owns the bond, you should not report Original Issue Discount (“OID”) on the bond on form 1099-OID. The coupon may have been ‘stripped’ (separated) from the bond and separately purchased.”⁶³

B. BEARER BONDS AND BITCOIN

Bearer bonds highlight some of the same issues that are brought up with Bitcoin:

Bearer bonds are easily transferable, easily negotiable and anonymous, and in certain circumstances, they have distinct advantages over other forms of currency, such as cash. However, these same advantages have been misused to cover up criminal activity or otherwise circumvent the law. As a result, the future of bearer bonds is uncertain, United States-issued bonds to

⁵⁷ Winckler, *supra* note 55.

⁵⁸ Temple-West, *supra* note 49.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ I.R.S. Pub. No. 1212, *Guide to Original Issue Discount (OID) Instruments* (Dec 20, 2013).

⁶² *Id.*

⁶³ *Id.*

become nearly extinct in the years to come and payment being uncertain even for those still in existence.⁶⁴

Similarly, Bitcoin is easily transferable, easily negotiable and anonymous and in has distinct advantages over currency. It operates like cash, but also has the potential to gain more value, like bearer bonds. The two are similar, for example, once a Bitcoin is stolen, it cannot be retrieved or replaced. Thus, there is a criminal element in the types of transactions that a person can enter using Bitcoin, and there is an advantageous criminal element related to stealing another individual's Bitcoin, straight from his or her computer.

It is likely that the IRS will replicate this forced reporting—which will cripple Bitcoin in the same way that it crippled bearer bonds.

IV. BITCOIN

A. *HOW BITCOIN WORKS*

Bitcoin was first introduced in 2009 as an online monetary system.⁶⁵ It was created by an anonymous programmer or group of programmers under the pseudonym, Satoshi Nakamoto.⁶⁶ Nakamoto created a peer-to-peer network that allows semi-anonymous online payments to be sent directly from one party to another.⁶⁷ The transactions are made without the interference of financial institutions,⁶⁸ operating like Internet cash.

The Bitcoin process begins with a procedure called “mining.”⁶⁹ It is helpful to think of it like mining for gold. Mining is a competitive process in which Bitcoin “miners” use special network processors and hardware to process transactions, secure the network, and solve algorithms that generate new Bitcoin.⁷⁰

Bitcoin are created at a fixed rate, which instigates the competitive process. There are only a finite number of Bitcoin that can ever be mined, which are created at a decreasing and predictable rate.⁷¹ Bitcoin issuance will come to an end once there are twenty-one million in

⁶⁴ Bernfeld, *supra* note 8.

⁶⁵ Sarah Meiklejohn et al., A Fistful of Bitcoin: Characterizing Payments Among Men with No Names (unpublished manuscript), available at <http://cseweb.ucsd.edu/~smeiklejohn/files/imc13.pdf>.

⁶⁶ FAQ, BITCOIN.ORG, <https://bitcoin.org/en/faq> (last visited Sept. 17, 2014).

⁶⁷ *Id.*

⁶⁸ See Nakamoto, *supra* note 13.

⁶⁹ FAQ, *supra* note 66.

⁷⁰ *Id.*

⁷¹ *Id.*

existence.⁷² Although there is a finite number of Bitcoin, it is important to keep in mind that with technology, it is divisible. A Bitcoin can be divided up to eight decimal places at this moment and potentially infinitely divisible if required in the future.⁷³ This means that Bitcoin can retain value—a person will be able to own a fraction of a Bitcoin. Thus, the twenty-one million unit ceiling is not as limiting as it initially seems. However, as more miners join the network, systems have to work harder, more efficiently and effectively in order to make a profit.

There is an argument that Bitcoin has value because it is backed by mathematics, not properties like silver, gold, or governmental credit.⁷⁴ “With these attributes, all that is required for a form of money to hold value is trust and adoption.”⁷⁵

In order to mine a Bitcoin, a computer system performs mathematical calculations to ultimately gain a newly created Bitcoin.⁷⁶ Once the Bitcoin is mined, the network timestamps the transaction by placing the transaction in a “block”. A block is a record in the larger block chain that contains and confirms many waiting transactions.⁷⁷ Every ten minutes, a new block, which includes information on transactions is added to the “block chain.”⁷⁸ The “block chain” is a public record of Bitcoin transactions in chronological order.⁷⁹ The “block chain” is shared between all Bitcoin users.⁸⁰ This is a component of the peer-to-peer network, called the proof-of-work chain.⁸¹ Thus, the block chain proves that the sequence of events that took place, providing the entire network with a record of the transaction.⁸² Then, the users on the network check the block chain to “confirm” that a proper transaction occurred.⁸³

A “confirmation” is a transaction that has been processed by the network and is extremely unlikely to be reversed.⁸⁴ The transaction receives a confirmation when it is included in a block and a confirmation for every block that follows.⁸⁵ For low values, a single transaction can be

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ Nakamoto, *supra* note 13, at 2.

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.* at 3.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ VOCABULARY, <https://bitcoin.org/en/vocabulary> (last visited Sept. 7, 2014).

⁸⁵ *Id.*

secure.⁸⁶ The Bitcoin website recommends waiting for at least six confirmations for larger transactions before making a transaction. Every confirmation increases the security of the transaction while decreasing the risk that that transaction is reversed.⁸⁷

As soon as a transaction is confirmed, a “private key” is sent to the “wallet” that successfully mined the Bitcoin.⁸⁸ A private key is a confidential piece of data that proves the right to spend the Bitcoin. That piece of information goes to your “wallet” on your computer, which functions in the same way that a real wallet would hold cash. Some people use software wallets on their own computers while others use remote servers called web wallets.⁸⁹ Regardless, the private key is sent to the wallet via a cryptographic signature.⁹⁰

Private keys are a combination of numbers, which should never be revealed because the private key is what allows a person to spend the Bitcoin.⁹¹ The private key is not published on the block chain and therefore, keeps the process semi-anonymous.⁹²

The last piece to understanding the Bitcoin mining process involves what is called a cryptographic signature. First, Cryptography is a branch of mathematics which enables the Bitcoin network to create mathematical proofs that provide high levels of security, which then make it impossible for one person to spend another’s Bitcoin or corrupt the block chain.⁹³

It is important to note that spending another person’s Bitcoin is different than the term “double spend.”⁹⁴ Double spending is where a user tries to spend his or her Bitcoin in different places at the same time.⁹⁵ This is why the confirmation process is necessary. Mining and the block chain create a consensus on the network where one of the transactions will be confirmed and considered a valid transaction.⁹⁶

Second, a “signature” is really a cryptographic identity that enables someone to prove ownership.⁹⁷ The signature is the public component of

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.*

the transaction, which allows the whole network to match the signature to the Bitcoin that is being spent.⁹⁸

B. CHALLENGES

Bitcoin is a risky investment. The Winklevoss Bitcoin Trust articulated 60 risk factors in the Trust registration that it filed with the Securities and Exchange Committee.⁹⁹ Among those risk factors is the reason Bitcoin is doomed to fail as a currency: “[a] lack of expansion by Bitcoin into retail and commercial markets, or a contraction of such use, may result in increased volatility or a reduction in the Blended Bitcoin Price.”¹⁰⁰

Additionally, prosecutors want Bitcoin to be regulated at a higher standard than other financial instruments.¹⁰¹ Bitcoin is risky because of its ability to hide criminal activity. For example, the Silk Road was a website that dealt exclusively in Bitcoin and bought and sold black market items.¹⁰² It has been described as a “dizzying illicit emporium” selling “fake IDs, bogus passports, driver’s licenses, social security cards.”¹⁰³

Another key risk is Bitcoin’s susceptibility to hackers:

Bitcoin’s three largest exchanges have been disabled by hackers who took advantage of transaction malleability, meaning that transactions can be cloned or disguised before completion. Transaction malleability is a long-standing bug in Bitcoin. The hackers fomented denial of service attacks that succeeded in renaming the user identification before confirmation of the transaction.¹⁰⁴

Flexcoin, a Bitcoin bank, is shutting down.¹⁰⁵ On March 2, 2014 Flexcoin was hacked and all 896 Bitcoin that it held were stolen.¹⁰⁶

⁹⁸ *Id.*

⁹⁹ Winklevoss Bitcoin Trust, Amendment No. 1 to Form S-1 Registration Statement (Form S-1/A) (Oct. 8, 2013).

¹⁰⁰ *Id.*

¹⁰¹ Carter Dougherty, *Bitcoin Needs Tighter Rules Than Banks, Say Prosecutors*, BLOOMBERG (Jan. 30, 2014), <http://www.bloomberg.com/news/2014-01-29/prosecutor-warns-of-wild-west-without-bitcoin-oversight.html>.

¹⁰² Matthew Goldstein, *Online Black Market, Shut Down in Fall, Had a Digital Outpost in Pennsylvania*, N.Y. TIMES, Mar. 5, 2014, at B.6.

¹⁰³ David Kushner, *Dead End on Silk Road*, ROLLING STONE, Feb. 13, 2014, at 52.

¹⁰⁴ Lee A. Sheppard, News Analysis: Busting the Bitcoin Myths, TAX NOTES TODAY, 2014 TNT 41-1. [hereinafter *Busting the Bitcoin Myths*].

¹⁰⁵ FLEXCOIN-THE BITCOIN BANK, <http://flexcoin.com/> (last visited Oct. 28, 2014).

¹⁰⁶ *Id.*

Flexcoin announced that it is permanently closing because it does not have the resources to rebuild from a total annihilation of all of their resources.¹⁰⁷ The only people who will be able to recover their Bitcoin are those who put their physical coins with Flexcoin because the computer hacker was obviously unable to reach the physical coins.¹⁰⁸

The Flexcoin flaw was in the coding. Apparently, the attacker was able to take advantage of a programming flaw, which allowed transfers between users.¹⁰⁹ Thousands of requests were sent at once, during which the hacker overhauled the system and sent coins from one account to the next before balances were updated.¹¹⁰ Flexcoin left its users and investors empty handed saying, “[w]e’ve failed our customers, our businesses, and ultimately the Bitcoin community.”¹¹¹

Additionally, MtGox, Bitcoin’s largest exchange, disappeared overnight.¹¹² The Tokyo-based exchange was experiencing technical issues for months, including attempts at hacking the exchange.¹¹³ The exchange lost 750,000 Bitcoin, which accounts for roughly six percent of the total circulation of Bitcoin and is worth around \$400 million.¹¹⁴ The fall of the exchange made Bitcoin’s prices fall twenty-three percent.¹¹⁵ Those who had their Bitcoin invested in MtGox have little or no chance of getting their Bitcoin back.¹¹⁶

Although Bitcoin has its benefits, it is a risky investment. Professor Josh Lerner, a professor of investment banking at Harvard Business School suggests that investing in Bitcoin is an uncommon and risky strategy for a venture capital fund.¹¹⁷ He adds that most venture capital agreements have provisions strictly prohibiting investment in futures and currency.¹¹⁸ Lerner adds that buying risk assets is the type of investment for a hedge fund, not for traditional venture capital funds.¹¹⁹

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² Robin Sidel et al., *Shutdown Rattles Bitcoin Market*, WALL ST. J., Feb. 26, 2014 at A.1.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *See generally* Sidel et al., *supra* note 112.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

C. OTHER VIRTUAL MONEY

Bitcoin is not the only type of virtual money on the market. The several alternatives to Bitcoin are commonly referred to as altcoins.¹²⁰ Altcoins are on the market as a response to the inefficiencies and difficulties that Bitcoin has produced. Since Bitcoin is open-sourced and available anyone, users can modify the Bitcoin code—in order to create their own cryptocurrency.¹²¹ Currently, there are at least five popular alternatives to Bitcoin: Litecoin, Peercoin, Freicoin, Ripple, and Linden Dollar.¹²²

D. TAX CONSIDERATION

As the government becomes more assertive in the dealings of Bitcoin, it will lose most of its appeal.¹²³ The Financial Crimes Enforcement Network (“FinCEN”) is a bureau of the U.S. Department of the Treasury.¹²⁴ FinCEN’s mission is to “safeguard the financial system from illicit use and combat money laundering and promote national security through the collection, analysis, and dissemination of financial intelligence and strategic use of financial authorities.”¹²⁵ By its very nature, FinCEN has the responsibility to look into Bitcoin and its use.

FinCEN defines currency as “the coin and paper money of the United States or of any other country that (i) is designated as legal tender and that (ii) circulates and (iii) is customarily used and accepted as a medium of exchange in the country of issuance.”¹²⁶ Virtual currency is like currency in that it operates like a currency in some situations; however, it does not have all the attributes of currency, such as the status of legal tender.¹²⁷ A convertible virtual currency “either has an equivalent value in real currency, or acts as a substitute for real currency.”¹²⁸ Bitcoin is classified as a convertible virtual currency.¹²⁹

¹²⁰ Saumya Vaishampayan, *Five Virtual Currencies Other than Bitcoin*, MARKETWATCH (Nov. 18, 2013, 4:18 PM), <http://www.marketwatch.com/story/five-virtual-currencies-other-than-Bitcoin-2013-11-18>.

¹²¹ *Id.*

¹²² Each alternative essentially modifies or improves on a Bitcoin element. *Id.*

¹²³ Timothy Lavin, *Bitcoin is Still Doomed*, BLOOMBERG VIEW (Nov. 20, 2013, 1:03 PM), <http://www.bloomberg.com/news/2013-11-20/Bitcoin-is-still-doomed.html>.

¹²⁴ *What We Do*, FINCEN, http://www.fincen.gov/about_fincen/wwd/ (last visited Sept. 17, 2014).

¹²⁵ *Id.*

¹²⁶ 31 C.F.R. § 1010.100(m) (2014).

¹²⁷ FIN-2013-G001 (Mar. 18, 2013).

¹²⁸ *Id.*

¹²⁹ *Id.*

FinCEN regulates money services businesses (MSBs).¹³⁰ Thus, the individual “user” of Bitcoin is not subject to regulation by FinCEN, but exchanges are subject to the regulation.¹³¹

As exchanges are finding, the Bank Secrecy Act¹³² is “burdensome, costly, and annoying.”¹³³ Thus, exchanges will have a disincentive to continue doing business in Bitcoin.

There are instances in the past that mirror the current Bitcoin situation. Specifically, the way the government taxed bartering and bearer bonds provide an indication of the future of Bitcoin. Essentially, people entered into barter transactions and used bearer bonds because they were essentially untaxed. However, as soon as a tax ruling was issued, the popularity of each method of exchange lost popularity.

The IRS issued Notice 2014-21, addressing the following sixteen issues related to the treatment of convertible virtual currency:

1. Under Federal Tax law, virtual currency is treated as property.
2. Virtual currency is not treated as a currency that could generate foreign currency gain or loss.
3. A taxpayer who receives virtual currency as payment must include in his or her income, the fair market value of the virtual currency on the date that he or she was paid.
4. The basis of the virtual currency is the fair market value of the date of receipt.
5. A taxpayer must calculate the virtual currency’s exchange rate, in a reasonable and consistent manner, in U.S. Dollars, on the date it was received as payment.

¹³⁰ *Id.*

¹³¹ “A user who obtains convertible virtual currency and uses it to purchase real or virtual goods or services is *not* an MSB under FinCEN’s regulations. Such activity, in and of itself, does not fit within the definition of ‘money transmission services’ and therefore is not subject to FinCEN’s registration, reporting, and recordkeeping regulations for MSBs.” *Id.*

¹³² The Bank Secrecy Act requires U.S. financial institutions to assist U.S. government agencies to detect and prevent money laundering. “Specifically, the act requires financial institutions to keep records of cash purchases of negotiable instruments, file reports of cash transactions exceeding \$10,000 (daily aggregate amount), and to report suspicious activity that might signify money laundering, tax evasion, or other criminal activities.” 31 U.S.C. § 310 (2010).

¹³³ *Id.*

6. When a taxpayer exchanges virtual currency for other property, the taxpayer realizes a gain or loss.
7. The character of the gain or loss depends on the way in which the taxpayer uses the virtual currency.
8. When a taxpayer successfully “mines” virtual currency, the taxpayer realizes gross income when they receive the virtual currency which he or she has mined.
9. An individual who “mines” virtual currency as a trade or business is subject to self-employment tax
10. When an independent contractor receives virtual currency as payment, it constitutes self-employment income.
11. When an employer pays an employee in virtual currency, it constitutes wages for employment tax purposes.
12. A payment made using virtual currency is subject to information reporting when it has a value of \$600 or more.
13. When a taxpayer makes a payment to an independent contractor in the amount of \$600 or more, the taxpayer is required to report the payment on Form 1099-MISC.
14. Payments made with virtual currency are subject to backup withholding.
15. There are reporting requirements for payments made with virtual currency by third parties on behalf of merchants.
16. Taxpayers may be subject to penalties for failure to comply with tax laws.¹³⁴

The IRS addresses many issues in its Notice. However, there are still valid arguments that treating Bitcoin as property is inefficient and inaccurate. One such argument contends that Bitcoin and other virtual currencies are international by nature. Therefore, under the IRS notice,

¹³⁴ I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

simply incorporating or “mining” in another country would allow a taxpayer to avoid much of the reporting requirements. Thus, Bitcoin is a transactional currency and should be taxed as a foreign currency. Other arguments include that it is a store of value and should be taxed as a capital asset. Each classification of tax is discussed below in turn.

E. CURRENCY

The first argument is that Bitcoin should be treated as a transactional currency. The Financial Crimes Enforcement Network (FinCEN) defines currency as follows:

(m) Currency. 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.¹³⁵

In other words, currency is “the money that a country uses.”¹³⁶ This definition would seem to include Bitcoin within the definition of currency. A person might reason that as long as members of a country use Bitcoin, it is a currency.

Further, in *AMP Inc. and Consol. Subsidiaries v. U.S.*, the court defined “functional currency” as follows:

[t]he primary currency of the economic environment in which the entity operates. It is presumed that an entity’s functional currency would be the currency of the country in which the entity is located and the currency of the country in which the books of record are maintained. In some instances, however, a foreign entity’s functional currency may not be the currency of the country where the entity is located even though that currency is used in the books of records [sic].¹³⁷

¹³⁵ 31 C.F.R. § 1010.100(m) (2014).

¹³⁶ MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY 306 (11th ed. 2003); *see also* BLACK’S LAW DICTIONARY, *supra* note 17.

¹³⁷ *AMP Inc. and Consol. Subsidiaries v. U.S.*, 185 F.3d 1333 (U.S. App. 1999).

However, Bitcoin is not a currency. A thing is not a currency just because it has value. “If Bitcoin is a currency, any tradable store of value would be a currency. Gold bullion would be a currency. Rolex watches would be a currency. Airline miles would be a currency. Money market fund shares would be a currency.”¹³⁸

Additionally, an important point is made about the stagnant nature of Bitcoin:

The people who have Bitcoin have no reason to spend them, and the people who don't have no reason to get them. They don't want a currency whose value you can't predict from one hour to the next. They don't want to buy things anonymously. And they don't want transactions to be irreversible.¹³⁹

And finally, the erratic nature of Bitcoin erases its plausibility as a currency. “If a retailer accepts Bitcoin for a product and the Bitcoin price declines sharply the next day, he's made a terrible mistake. If the price increases sharply, the buyer has made a terrible mistake.”¹⁴⁰

Although the federal government had respectful remarks about Bitcoin, it acknowledges that a currency, by definition, is something the government controls.¹⁴¹ However, individual users and companies are accepting payment for goods and services in Bitcoin, meaning that even though it is not officially qualified as a currency, it is still functionally operating as a currency.

F. SECURITY

Others argue that Bitcoin should be classified as a security. A security is defined as follows:

[A]ny note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided

¹³⁸ Busting the Bitcoin Myths, *supra* note 104.

¹³⁹ Timothy B. Lee, *No, Bitcoin Isn't the Segway of Currencies*, THE WASHINGTON POST (Nov. 22, 2013), <http://www.washingtonpost.com/blogs/the-switch/wp/2013/11/22/no-bitcoin-isnt-like-a-segway/>.

¹⁴⁰ Lavin, *supra* note 123.

¹⁴¹ 31 C.F.R. § 1010.100(m) (2014).

interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a “security”, or any certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.¹⁴²

In *Securities and Exchange Commission v. Shavers*, the Eastern District of Texas addressed the issue of whether investments in Bitcoin were securities under Federal Securities Law.¹⁴³ In that case, the defendant was the founder and operator of Bitcoin Savings and Trust.¹⁴⁴ The defendant solicited business from people in order to “invest in Bitcoin-related investment opportunities.”¹⁴⁵ The defendant advertised that he was in the business of selling Bitcoin to a local group of people and that investors would receive one percent interest daily.¹⁴⁶ The SEC alleged that the defendant made misrepresentations and defrauded the investors.¹⁴⁷

The defendant argued that the investments he made did not fall under the definition of “securities” “because Bitcoin is not money, and is not part of anything regulated by the United States.”¹⁴⁸ Additionally, the defendant argued that all transactions were Bitcoin transactions, that no actual money was ever exchanged.¹⁴⁹

However, the SEC argues that the defendant’s investments were investment contracts and notes, meaning that they did qualify as securities.¹⁵⁰

The Eastern District of Texas first looked at whether the Defendant’s investments were an investment of money:

It is clear that Bitcoin can be used as money. It can be used to purchase goods or services, and as [the defendant] stated, used to pay for individual living

¹⁴² Securities Act of 1933, 15 U.S.C. § 77b(a)(1) (2006).

¹⁴³ *SEC v. Shavers*, No. 4:13-CV-416, 2013 WL 4028182 (E.D. Tex. Aug. 6, 2013).

¹⁴⁴ *Id.* at *1.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at *2.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

expenses. The only limitation of Bitcoin is that it is limited to those places that accept it as currency. However, it can also be exchanged for conventional currencies, such as the U.S. dollar, Euro, Yen, and Yuan.¹⁵¹

The *Shavers* decision held that the defendant's Bitcoin investments are securities.¹⁵²

G. PROPERTY-CAPITAL ASSET

As stated in IRS Notice 2014-21, Bitcoin and similar virtual currencies are classified as property.¹⁵³ Property seems to be the correct classification because property does not have to be physical, Bitcoin is operating as a store of value¹⁵⁴ and "Bitcoin held by taxpayers for investment purposes rather than as a means to purchase goods or services may meet the definition of capital asset."¹⁵⁵ Property is a carryover category, and anything that is not a liability is qualified as property.¹⁵⁶

Under the property classification, even Bitcoin miners will be taxed as they provide a service in exchange for property.¹⁵⁷ Under section 83 of the Tax Code,¹⁵⁸ the miners are taxed on the fair market value of the Bitcoin that they receive in exchange for their services in mining. Under this analysis, it is easy to see how burdensome the tax consequences become once they are practically applied to the Bitcoin process.

Some taxpayers have difficulty understanding when they will actually have to pay taxes. Unlike regular cash, a person will not only be paying taxes on the item that they are currently purchasing, but they will have to pay taxes at the time they purchase the item because a taxpayer will owe taxes on the change in value of the Bitcoin. This is a different concept than that with which most people are familiar and a reason why Bitcoin will not catch on as a currency among the masses.

¹⁵¹ The final sentence of the Court's reasoning states, "[t]herefore, Bitcoin is a currency or form of money, and investors wishing to invest in [the defendant's investment] provided an investment of money." *Id.* at *2. This is an interesting perspective but most likely not controlling. Although the court reasons that Bitcoin are a currency, that is not the focus of the case. The *Shavers* case holds that Bitcoin are a security. *Id.*

¹⁵² Busting the Bitcoin Myths, *supra* note 104.

¹⁵³ *Id.*

¹⁵⁴ Michael Santoli, *Bitcoin's Price Swings Threaten Its Chance of Being a Real Currency*, YAHOO FINANCE (Nov. 19, 2013, 11:43 AM), <http://finance.yahoo.com/blogs/daily-ticker/bitcoin-price-swings-threaten-chance-being-real-currency-164359902.html>.

¹⁵⁵ *Id.*

¹⁵⁶ Busting the Bitcoin Myths, *supra* note 104.

¹⁵⁷ *Id.*

¹⁵⁸ 26 I.R.C. § 83 (2004).

H. THE FUTURE OF BITCOIN

Regardless of who is right in the debate about Bitcoin, people and companies are getting involved in the Bitcoin hype:

Funds are exploring the prospect of investing in virtual currencies and this year alone several funds have been launched with the intention of gaining exposure to [virtual currencies]. For example on July 1, [2013] celebrity entrepreneurs Cameron and Tyler Winklevoss filed a registration statement with the SEC for an exchange-traded fund gaining exposure to the Bitcoin, the most popular form of virtual currency.¹⁵⁹

As Bitcoin struggles to maintain a stable value, its future value is speculative. Bitcoin will most likely be used as a way to transfer money quickly and efficiently. It might be the future of credit cards. Large amounts of money will not need to take a substantial amount of time; Bitcoin transactions are processed almost instantly. Using Bitcoin, in a matter of minutes, money can circumnavigate the world.

V. CONCLUSION

As the press has recognized, it is an exciting time for Bitcoin and virtual money. The new technology has a lot of people talking about its potential as a currency, store of value, or even as a technology to transfer money.

Bitcoin is a complicated process that has enabled a de-centralized, semi-anonymous store of value to take the world by storm. It has inspired innovation. It created multiple Bitcoin exchanges where billions of dollars are being traded.

It is the monetary experiment of our time. As the black-market allure of Bitcoin fades away, it has come into the homes of regular consumers and investors around the world. The only question that remains is if it is here to stay.

While Bitcoin is still new, its consequences are unknown and undetermined. Many are anxiously waiting to hear whether the IRS will create new rules for the treatment of Bitcoin and other similar virtual currencies. Instead of creating new classifications for Bitcoin, the IRS has the option to treat Bitcoin in the same way it treated barter exchanges and bearer bonds. If the IRS chooses to go that route, Bitcoin will surely

¹⁵⁹ Mindi Lowy and Miriam Abraham, *Taxation of Virtual Currency*, TAX NOTES TODAY, (Nov. 11, 2014).

fade off of the market, just as barter and bearer bonds did—Bitcoin will lose all of its original appeal.

There should be an official virtual money tax. Future tax laws may draw from a combination of categories in order to fit this quasi-currency-security-property type of virtual currency. Regardless of what tax laws are passed, Bitcoin will lose its luster as a means to evade taxes when it becomes a currency for the masses. It will most likely suffer the same fate as bartering transactions and bearer bonds, which confused users, who consequently under-utilized the devices and dismissed their usefulness.