TAX 101:
VIRTUAL CURRENCY – WHAT IS IT? AND HOW IS IT TAXED?

INTRODUCTION

The use of virtual currency is on the rise, and investors and government agencies are taking notice. The recent surge and subsequent decline in the value of Bitcoin – which hit a record high exceeding $17,000 in early December – is prompting worldwide legislative attention. It has also caught the financial market’s eye, with the first Bitcoin futures trading launched on December 10, 2017. Adding to this frenzy is Venezuelan president Nicolas Maduro’s announcement of the “petro,” which, if launched, would be the first government-backed cryptocurrency, backed by Venezuela’s oil and other natural resources.

The market’s clear attraction to this alternative, decentralized currency-type asset comes despite criticism from high-profile personalities, such as JPMorgan’s Jamie Dimon who recently referred to cryptocurrency as a fraud, and scrutiny from law enforcement agencies. Cryptocurrency-based websites facilitating illicit commerce are highly targeted by worldwide law enforcement agencies. AlphaBay, the largest darknet market, was shut down on July 20, 2017, along with its competitor Hansa. The operation required the cooperation of worldwide law enforcement agencies, including the F.B.I., the D.E.A., the Dutch Police, and Europol. It follows the 2013 crackdown on Silk Road, another Bitcoin-based website facilitating criminal activities.

So, where does this lead? To understand the dynamics at play, this article begins with a brief explanation of Bitcoin before examining the U.S. tax treatment and reporting obligations of virtual currency holders.

1 See Coindesk.
A BRIEF OVERVIEW OF BITCOIN

Bitcoin was created in 2008, allegedly by a person (or group) known as Satoshi Nakamoto. The first Bitcoin was generated in early January 2009 and the first Bitcoin transaction took place later that month.

Bitcoin was created to constitute a peer-to-peer, decentralized version of electronic cash. It is a cryptocurrency, meaning a convertible virtual currency. Think of it as a long code. This code is divided into several blocks. All the blocks together are referred to as a blockchain.

The various blocks are not created by one or more identifiable individuals, but rather by a worldwide network of individuals often referred to as “miners” or “nodes.” The miners are essentially individual hosts that agree to implement and use the Bitcoin protocol.

This network of miners constitutes one of the particularities of Bitcoin: Instead of having a trusted central institution, such as a central bank, verify the validity of a given Bitcoin transaction, a widespread network of miners works together, or “mines,” to verify the transaction. The incentive for the miners is their entitlement to a sort of “transaction fee.”

If, for example, individual A holds six Bitcoins and wishes to transfer three Bitcoins to individual B, A would indicate his or her wish to transfer six Bitcoins and to get two Bitcoins back. The one Bitcoin difference would be a transaction fee paid to the miners, as an incentive for their work.

A good way to understand the underlying logic of Bitcoin and other cryptocurrencies is to start with our current banking system: When A wishes to wire X amount to B, A’s bank will send the wire information to a central bank, which would then effectuate the transfer to B’s bank to have the amount deposited into B’s account. The central bank would retain records of the interbank transaction and make certain that no double-spending occurs. In the Bitcoin system, no such central institution and record retention is needed. The decentralized mining system, coupled with the blockchain technology and good faith, makes it almost impossible to duplicate a given Bitcoin. The traditional record retention is embedded into the blockchain and, thus, is irreversible.

Another characteristic of Bitcoin is that it prevents double spending, whereas regular wire transfers of fiat currencies can be fraudulent.

Take, for example, the mobile payment service Venmo: If A wishes to wire X amount to B, and sends such amount to B via Venmo on date Y, B’s Venmo account will

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8 Dates vary depending on the source. See, for instance, History of Bitcoin.

9 “Bitcoin: A Peer-to-Peer Electronic Cash System.”


11 For a clear illustration, see the IMF staff discussion note “Virtual Currencies and Beyond: Initial Considerations,” SDN/16/03, January 2016, p. 20.
indicate the payment as of date Y. However, A’s actual bank account linked to A’s Venmo account will only debit the funds on Y+1 or Y+2. This leaves A the time to withdraw the funds from A’s account and B’s receipt of X will be reversed. A simpler example would be counterfeit money.

As stated earlier, in the case of Bitcoin, the transaction chain constituting the cryptocurrency, and essentially created by the miners, is unique and not reversible. In the example, this transaction chain records all transactions up to and including A’s transfer to B. It will include A’s virtual identity (“public key”) and B’s public key. This public key is simply a chain of numbers and constitutes the owner’s virtual identity. The transfer can only be completed once the miners verify the transaction and once A uses his or her “private key,” which is unique and specific to every Bitcoin user.

A third characteristic of the Bitcoin system is the anonymity it provides to Bitcoin owners. Every Bitcoin owner is identified through a public key. The public key is broadcast into the network of miners when a Bitcoin owner wishes to enter into a transaction. Only when the transaction is coupled with the Bitcoin owner’s private key can the transaction be verified by the miners. A private key is essentially the equivalent of the owner’s signature to the transaction.

The Bitcoin system can be explained by the following diagram:

In comparison to other virtual currencies, the Bitcoin system is designed to generate a maximum of 21 million Bitcoins. It is currently estimated that this number will be reached by 2140. Further, Bitcoin allows for fractional ownership, with the smallest fraction being 0.00000001 Bitcoin (or 1/100,000,000 of one Bitcoin), referred to as a Satoshi.

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12  “Controlled Supply,” Bitcoinwiki.
I.R.S. GUIDANCE ON CONVERTIBLE VIRTUAL CURRENCY

On March 25, 2014, the I.R.S. issued Notice 2014-21 providing guidance on convertible virtual currency transactions. The notice was drafted in Q&A format and applied existing general tax principles to convertible virtual currency transactions.

In the notice, the I.R.S. acknowledges the rising use of virtual currencies as an investment or to pay for goods or services. It defines “virtual currency” in the following terms:

... a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value. In some environments, it operates like ‘real’ currency — i.e., the coin and paper money of the United States or of any other country that is designated as legal tender, circulates, and is customarily used and accepted as a medium of exchange in the country of issuance — but it does not have legal tender status in any jurisdiction.

The notice further defines “convertible virtual currency” as a virtual currency having an equivalent value in real currency or acting as a substitute for real currency. It cites Bitcoin as an example.

The notice only applies to convertible virtual currencies and provides the following Federal tax treatment for U.S. persons and their foreign subsidiaries:

• Convertible virtual currency is considered property.

• Convertible virtual currency is not treated as currency for foreign currency gain or loss purposes (i.e., a transfer to a branch will not trigger currency gain or loss).

• Convertible virtual currency received as payment for goods or services must be included in the recipient’s gross income at its U.S. dollar fair market value as of the date of receipt. (It also triggers gain or loss for the purchaser, as discussed below.) This fair market value constitutes the recipient’s basis in the convertible virtual currency.

• The notice does not provide an exact rule for determining the real market value of the convertible virtual currency. Rather, it states that if the currency is listed on an exchange; such exchange rate can be used “in a reasonable manner that is consistently applied.”

• A taxpayer must recognize gain or loss upon an exchange of convertible virtual currency for property. The gain or loss is the difference between the received property’s fair market value and the taxpayer’s adjusted basis in the convertible virtual currency. No indication is given as to how to determine the taxpayer’s adjusted basis in the currency, other than a reference to Publication 544, Sales and Other Dispositions of Assets, which in itself does not address virtual currency. The gain or loss is capital in nature if the currency constitutes a capital assets in the hands of the taxpayer, and ordinary if it doesn’t. As examples of capital assets, the notice cites “stocks, bonds, and other investment property” as “generally” constituting capital assets.
Inventory and other property held for the sale to customers generally do not constitute capital assets. Again, the notice references to Publication 544 for more information.

- Miners must include convertible virtual currency received for their mining activities in their gross income. The notice refers to Publication 525, *Taxable and Nontaxable Income*, for more information on taxable income. Although referring to virtual currency as taxable income, this publication does so only in the context of employee compensation.

- A taxpayer engaged in the trade or business of “mining” convertible virtual currency in a capacity other than as an employee, is subject to the self-employment tax on the net earnings derived from this mining activity. The notice refers to Publication 334, *Tax Guide for Small Business*, and Publications 535, *Business Expenses*. Here again, none of these publications make a reference to virtual currency.

- Also subject to self-employment tax is convertible virtual currency received by an independent contractor for performing services. Here again, it is the fair market value of the virtual currency measured in U.S. dollars as of the date of receipt that constitutes self-employment income.

- Employment taxes must be withheld from the fair market value of convertible virtual currency paid as compensation to an employee, and the employee’s W-2 must reflect such payment and withholdings. A reference is made to Publication 15, *(Circular E) Employer’s Tax Guide*, but the publication itself does not address wages paid by means of virtual currency. Because the I.R.S. does not accept virtual currency as a payment medium, an employer must indicate gross wages based on the fair market value in U.S. dollars on each payment date, then deduct the amount of withholdings measured in dollars from the payment and pay the withheld amounts to the I.R.S. using U.S. dollars. The amount withheld is converted back into virtual currency and subtracted to arrive at the net amount due to the employee expressed in terms of the virtual currency used. These computations would be tracked by computer to determine the net basis for the virtual currency on hand.

- Virtual currency payments are subject to the same reporting obligations as any other payment made in property. They are also subject to the same backup withholdings as other payments made in property. As a result, the payor must solicit the payee’s taxpayer identification number (“T.I.N.”).

- Virtual currency payments to an independent contractor in excess of $600 must be reported to the I.R.S. on Form 1099-MISC.

Besides the basic character of the above guidance and the already mentioned practical issues relating to employment taxes, the myriad of computations based on fluctuating amounts present many issues, which include the following:

- How is gain or loss determined when property is acquired in exchange for virtual currency or vice versa? Imagine the acquisition of a small item, such as a Starbucks coffee using the IPayYou app. Should this transaction be recorded on Form 8949, *Sales and Other Disposition of Capital Assets*?

- How is the virtual currency’s basis determined in the hands of the taxpayer?
Because of its high value, an acquisition of property in exchange for Bitcoins is likely to result in property acquired for less than one Bitcoin. In theory, the taxpayer would then be required to (i) find out the Bitcoin-U.S. dollar exchange rate applicable as of the date of the Bitcoin acquisition, (ii) retain the amount of Satoshis used to purchase the property, (iii) determine the basis of these Satoshis by reference to the basis of the initial Bitcoin, and (iv) compute the gain or loss realized on the exchange. This issue gets even more complicated when the Satoshis were acquired through various smaller U.S. dollar for Bitcoin exchanges and several Satoshis acquired at different times were used to acquire the property. Although the basis and holding period determination rules of Treas. Reg. §1.1012-1 expressly applies to the determination of basis and holding period of stock, can the underlying logic apply to Bitcoin? Should the “first in, first out” method of Treas. Reg. §1.1012-1 be applied to virtual currency, or rather the actual delivery rule of Treas. Reg. §1.1012-1 (c)(2)?

- How is convertible virtual currency treated for F.A.T.C.A. purposes, and more specifically for Form 8938, Statement of Foreign Financial Assets, purposes? Since convertible virtual currency is treated as property pursuant to the notice and the only income for U.S. Federal tax purposes is the sale of that virtual currency, it could be considered “property not giving rise to income” and, hence, a Subpart F item under Code §954(c)(1)(B)(iii) for a U.S. shareholder of a controlled foreign corporation. Or, it could be excluded from this definition if it were to be considered intangible property under Code §936(h)(3)(B).14 Better yet, as at least one author suggested,15 convertible virtual currency could constitute a commodity and thus be included in the definition of Subpart F income under Code §954(c)(1)(C). Such an inclusion would then have substantial U.S. tax consequences when the income is generated by a controlled foreign corporation or a passive foreign investment company.

In addition, as a result of the I.R.S. notice, individual taxpayers with virtual currency accounts must report their virtual currency capital gains or losses on Form 8949, Sales and Other Dispositions of Capital Assets, attached to Schedule D, Capital Gains and Losses, of Form 1040, U.S. Individual Income Tax Return. A common misconception is that capital gains and losses need only be reported when the virtual currency is converted back into fiat currency. In reality, taxpayers exchanging virtual currency for other virtual currency are entering into a taxable transaction upon every exchange. Basis tracking is thus of essence. Absent further guidance on this point, the safest way to keep track of cryptocurrency basis is to keep the confirmation emails summarizing the type of cryptocurrency bought, the acquisition date, and the applicable exchange rate on such date.

**FINCEN APPROACH TO VIRTUAL CURRENCY**

**On the Institutional Side**

The Bank Secrecy Act (“B.S.A.”) was enacted to help prevent money laundering, by creating a number of registration, reporting, and recordkeeping obligations for
financial institutions and money service businesses (“M.S.B.”), the definition of which includes money transmitters.

On March 18, 2013, the Treasury Financial Crimes Enforcement Network (“FinCEN”) issued interpretative guidance to clarify the application of the B.S.A. regulations to persons creating, obtaining, distributing, exchanging, or transmitting virtual currencies.16 The guidance refers to such persons as users, exchangers, or administrators. It applies only to convertible virtual currency, which it defines as:

A medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency. In particular, virtual currency does not have legal tender status in any jurisdiction. . . . [Convertible] virtual currency either has an equivalent value in real currency, or acts as a substitute for real currency.

Pursuant to the guidance, users are not money transmitters. However, administrators and exchangers may be money transmitters. For this purpose, the following definitions apply:

• A user is a person obtaining virtual currency to purchase goods or services. This includes a person mining the virtual currency or a person purchasing the virtual currency.17

• An exchanger is a person engaged in the business of exchanging virtual currency for real currency, funds, or other virtual currency.

• An administrator is a person engaged in the business of issuing a virtual currency and having the authority to redeem such virtual currency (i.e., withdraw such currency from circulation).

Under the guidance, an exchanger or administrator generally is a money transmitter when such person

• accepts and transmits a convertible virtual currency, or

• buys or sells convertible virtual currency for any reason.

When applied to decentralized virtual currencies, such as Bitcoin, a person acquires money transmitter status and thus is subject to B.S.A. reporting and record retention obligations in the following cases:

• The person creates convertible virtual currency and sells it to another person for real currency or its equivalent.

• The person accepts 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.

Elaborating on the above, FinCEN issued guidance FIN-2014-R001 on January 30, 2014. Pursuant to this guidance, FinCEN stated:


17 Notice 2014-21; supra note 7.
What is material to the conclusion that a person is not an MSB is not the mechanism by which a person obtains the convertible virtual currency, but what the person uses the convertible virtual currency for, and for whose benefit.

It concluded that a company mining Bitcoins is a user and not a money transmitter if the company either

- uses the Bitcoins to purchase goods and services or pay debts it has previously incurred (including debts to its owners),
- converts the Bitcoins into currency of legal tender and uses the currency to purchase goods or services, or
- transfers the Bitcoin to the owner of the company.

This is provided that all the above are performed exclusively for the user’s own purposes and not as a business service performed for the benefit of others.

In guidance FIN-2014-R002, also issued on January 30, 2014, FinCEN took the same position with regard to a company that periodically invests in convertible virtual currency and that produces and distributes software to facilitate such purchases for purposes of its own investments. To the extent the company’s activities are performed for its own account, it acts as a user and not as a money transmitter.

Finally, in two guidances issued on October 27, 2014, FinCEN stated that the following are money transmitters for B.S.A. purposes:

- A company setting up a convertible virtual currency payment system
- A company setting up a convertible virtual currency trading and booking platform

As a result of the above guidance, cryptocurrency-related businesses qualifying as money transmitters, and thus as M.S.B.’s, and conducting such business wholly or in substantial part within the U.S. must register within 180 days of beginning operations and must renew their registration every two years. In the case of M.S.B.’s located outside the U.S., the appointment of a U.S.-resident agent is mandatory. In addition, they must also develop, implement, and maintain a written anti-money laundering program in order to avoid being a channel for money laundering or for the financing of terrorist activities.

The above guidance is not to be taken lightly: Following the January 17, 2017, indictment of BTC-e – one of the world’s largest and most widely used digital currency exchanges – and its owner Alexander Vinnik, FinCEN assessed a $110,003,314
willful penalty on BTC-e and a $12,000,000 willful penalty on Mr. Vinnik.24

**On the Taxpayer Side**

A U.S. person is generally required to file FinCEN Report 114 (“F.B.A.R.”) if it has a financial interest in or signature authority over a bank, securities, or other financial account in a foreign country when the aggregate value of the foreign financial account(s) exceeds $10,000 at any given time during the reporting year. While no guidance has been issued yet, certain authors have argued that based on *U.S. v. Hom*25 accounts holding virtual currencies may be subject to F.B.A.R. reporting obligations if all requirements are otherwise met.

In *Hom*, however, the taxpayer was involved in online gambling. For this purpose, he had opened three online accounts allowing him to use funds for online gambling purposes. His FirePay account was used to receive funds from his bank account and fund his online gambling accounts at PokerStars and PartyPoker. FirePay was an online financial organization that received, held, and paid funds on behalf of its customers. The U.S. District Court for the Northern District of California held that all three accounts were subject to F.B.A.R. reporting.

In reaching its decision, the court examined whether the four criteria for filing an F.B.A.R. were met:

- **U.S. Person**: The defendant was a U.S. citizen and thus the requirement was met.

- **Interest in a Bank, Securities, or Other Financial Account**: The court found that all three accounts were financial accounts because they were held by institutions that functioned as commercial banks.

- **Financial Account Is in a Foreign Country**: The financial institutions holding the account were outside the U.S. Therefore, the accounts were foreign, regardless of whether the foreign institution held the account owner’s funds in U.S. accounts.

- **$10,000 Threshold**: This threshold was met in the facts under consideration.

The U.S. Court of Appeals for the Ninth Circuit upheld this decision only with regard to the FirePay account. In reaching its decision, the court stated, *inter alia*, that:

> Hom’s FirePay account fits within the definition of a financial institution for purposes of FBAR filing requirements because FirePay is a money transmitter. . . .

In contrast, Hom’s PokerStars and PartyPoker accounts do not fall within the definition of ‘bank, securities, or other financial account.’ PartyPoker and PokerStars primarily facilitate online gambling. Hom could carry a balance on his PokerStars account, and indeed he needed a certain balance in order to ‘sit’ down to a poker game.

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But the funds were used to play poker and there is no evidence that PokerStars served any other financial purpose for Hom. Hom’s PartyPoker account functioned in essentially same manner.

As a result of the above, a U.S. person should have F.B.A.R. reporting obligations with regard to convertible virtual currency when that person holds (i) a convertible virtual currency account, with (ii) a non-U.S. (iii) exchanger or administrator that is (iv) a money transmitter under the BSA guidance, and (v) the value of all the person’s accounts, whether in virtual or fiat currency, exceeds the $10,000 threshold in a given year.

Thus, U.S. taxpayers otherwise meeting the F.B.A.R. requirements and having accounts with non-U.S. cryptocurrency exchanges – such as, but not limited to, Binance,26 Bitstamp, 27 Quoine, 28 and Bitfinex 29 – should disclose such accounts on their F.B.A.R.’s.

ONGOING EFFORTS

In the U.S.

U.S. authorities are continuously working to adapt the current legal framework to virtual currency.

- On September 21, 2016, the Treasury Inspector General for Tax Administration ("T.I.G.T.A.") issued a report recognizing the surge of virtual currencies in taxable transactions and the need for additional actions relating to taxpayer compliance. 30 In it, and pursuant to public comments on Notice 2014-21, T.I.G.T.A. identified three primary areas for which the public requested additional information:31

  o Keeping track of transactions associated with virtual currencies when they are used as property (including the appropriate valuation method)
  o Keeping track of the cost and payments related to mining Bitcoins
  o Determining how to ensure tax compliance of transactions involving virtual currencies

It further recommended a revision of third-party information reporting documents to identify the amounts of virtual currency used in taxable transactions.32 Adoption of its recommendations could lead to the end of anonymity

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26 Binance is a Shanghai-based digital asset exchange.
27 Bitstamp is based in Slovenia. It is not clear whether the exchange also has U.K. and U.S. presence.
28 Quoine is based in Singapore.
29 Bitfinex is based in Taiwan (Republic of China).
31 Id., p. 10.
32 Id., p. 16.
for virtual currency holders.

- At a September 15, 2017, meeting of the Tax Section of the American Bar Association, I.R.S. Chief of Criminal Investigation Don Fort announced five areas of focus that included virtual currencies and cryptocurrencies. Mr. Fort described certain I.R.S. Criminal Investigation agents as the world’s experts in this field.

- Proposed legislation was introduced in the House of Representatives that would prevent taxpayers from recognizing income when making virtual currency exchanges of less than $600. The bill, called the Cryptocurrency Tax Fairness Act, was introduced by Representative Jared Polis (D-CO) and Representative David Schweikert (R-AZ), who also spearheaded the formation of the Congressional Blockchain Caucus on February 1, 2017.

- The I.R.S. is focusing on individual taxpayers trading in virtual currency. On November 28, 2017, a U.S. District Court partially granted the government’s petition to enforce an I.R.S. summons served on Coinbase, Inc., a U.S.-based virtual currency exchange. Pursuant to the court order:

  Coinbase is ORDERED to produce the following documents for accounts with at least the equivalent of $20,000 in any one transaction type (buy, sell, send, or receive) in any one year during the 2013 to 2015 period:

  (1) the taxpayer ID number,

  (2) name,

  (3) birth date,

  (3) address,

  (4) records of account activity including transaction logs or other records identifying the date, amount, and type of transaction (purchase/sale/exchange), the post transaction balance, and the names of counterparties to the transaction, and

  (5) all periodic statements of account or invoices (or the equivalent).

Worldwide Examples

The European Union is currently working to regulate cryptocurrencies by applying anti-money laundering rules to cryptocurrency exchanges.

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Japan has gone so far as to amended its laws to allow virtual currencies as a legal form of payment, while other countries, such as Austria, have published guidance on the tax treatment of cryptocurrencies.

CONCLUSION

While cryptocurrencies are undeniably booming, authorities worldwide are making efforts to regulate them. The anonymity provided by virtual currencies, such as Bitcoin, may be short lived given worldwide efforts to regulate them and subject their owners to reporting requirements. The ultimate aim is to reach the correct balance between facilitating the legitimate use of virtual currency and preventing criminal activities enabled by its features.


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