STROOCK
SPECIAL BULLETIN

Three Key Federal Income Tax Issues Raised by Cryptocurrencies

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Background

Cryptocurrencies – the original, and most famous of which, Bitcoin, was "designed" in 2009 by Satoshi Nakamoto (a pseudonym) – give rise to a number of tax issues, three of which we discuss in this article: (1) the effect of using Bitcoin to buy a good or service, (2) the treatment of mining Bitcoins, and (3) what happens from a tax perspective when there is a so-called hard fork of a cryptocurrency into two cryptocurrencies.

In simple terms, a cryptocurrency (also referred to as "virtual currency" in IRS publications) is "a digital asset designed to work as a medium of exchange that uses *cryptography* to secure its transactions, to control the creation of additional units, and to verify the transfer of assets" (emphasis added).[1] Although we focus on Bitcoin in this article, there are many cryptocurrencies, such as Ether, Ether Classic, Litecoin and Bitcoin Cash.

Valuation and Trustworthiness of a "Currency"

On April 10, 2018, a single Bitcoin was worth over $6,800, but the value has been quite volatile, and some think that this is a speculative bubble and that Bitcoins will ultimately be worth $0. How does Bitcoin have value? For any currency, or indeed any widely circulated asset, to have value, whether it be a United States dollar or a Bitcoin, the population at large or a significant percentage of the population at large must accept that it will be usable to buy goods and services. That, in turn, generally requires that the population trust that the currency "tokens" will be limited in number (either a fixed number or a reasonable mechanism for increasing them) and that they are not easily counterfeited. Trust is of course a necessary but not sufficient condition.

For dollars – and the bank accounts that hold them – trust is based on the issuer of the currency (the United States Government), and, in the case of bank accounts, on the bank holding the currency. In the case of Bitcoin, that trust is based on three features.

- First, the software that creates the Bitcoins is open-source and available to all.
- Second, every transaction in Bitcoin has an entry added to a massive encrypted ledger (the so-called blockchain[2]), so a merchant (or

[1] Wikipedia, Cryptocurrency, available at https://en.wikipedia.org/wiki/Cryptocurrency.

[2] Regardless of whether cryptocurrencies are ultimately successful as currencies, the

other Bitcoin transferee) can see that a transfer of a Bitcoin to his wallet[3] was made.

- Third, and most importantly, the method by which Bitcoins are created (referred to as "mining" a Bitcoin) and transferred is designed so that duplicate or fake transactions are extremely hard to accomplish.

The Method Used for Modifying the Blockchain

Though a full description of the method by which Bitcoins are created and transferred is technically sophisticated and beyond the scope of this article, the shorthand version is as follows.

- Miners earn Bitcoins by adding blocks to the blockchain, where each block represents a group of transactions.
- A miner adds a block to the blockchain by solving (via brute-force trial and error) a computationally intensive mathematical problem that relates to the then-existing blockchain, as well as the transactions associated with the block to be added.
- The first miner to solve the problem and add the block to the blockchain receives a reward in the form of not only new Bitcoins, but also transaction fees associated with the transactions in the block. By offering transaction fees, buyers and sellers provide incentives to miners to prioritize adding the buyers' and sellers' transactions to the blockchain.
- Once a miner solves the problem, other miners and every participant's software can quickly verify that the solution is correct, and the transactions in the block are irrevocably added to the blockchain.
- Ultimately, there is a fixed number of Bitcoins that can be created, so eventually Bitcoin transactions will be done based on the transaction fees offered by participants to solve the mathematical problems. It should be noted that the mathematical problems get increasingly more complicated (for technical reasons relating to the increasing computing power used to mine the Bitcoins) and require increasing amounts of electrical power; the basic idea is that someone wanting to put in a fake transaction, or two inconsistent transactions, would have to have more calculating power than ALL THE OTHER MINERS on the network combined who are solving the mathematical puzzle with a proper block.

Treatment of Using Bitcoin to Buy a Good or Service

Bitcoin Treated as Property

The IRS stated in Notice 2014-21 that virtual currencies such as Bitcoin are not treated as currencies, but instead are treated like other property. If property is used to buy a service or good, any gain or loss on the property is recognized, generally as capital gain or loss. The IRS determined that the same treatment applies to virtual currencies. Accordingly, the use of a Bitcoin to buy a good or service triggers the recognition of any gain or loss on the transfer of the Bitcoin (determined by comparing the value of the Bitcoin at the time of transfer to its tax basis). The gain recognized is capital gain if the Bitcoin is a capital asset in the hands of the taxpayer (not, e.g., a dealer in Bitcoin). Consequently, Bitcoin investors may wish to hold Bitcoin for more than a year to ensure long-term capital gain treatment. Investors should also note that, as Bitcoins are personal property, a like-kind exchange cannot presently be done with Bitcoins or other

blockchain concept, which can help ensure the security of transfers or perform other functions, is becoming widely used and has independent value. For example, the Ethereum blockchain is used to perform software functions on a distributed basis.

[3] A wallet is software that a holder of Bitcoin uses to hold his or her Bitcoins and to transfer or receive Bitcoins from other holders.

cryptocurrency, as the recently enacted tax law limits like-kind exchanges to real property only.[4]

Tax Basis of a Bitcoin

The tax basis of a Bitcoin acquired by purchase or exchange generally is the fair market value at the time it was acquired. For example, buying a Bitcoin for $7,000 would result in a tax basis of $7,000. Selling it later for $8,000 would result in taxable gain of $1,000. The tax basis of a Bitcoin obtained through mining depends on the income realized on mining and is discussed in Treatment of Bitcoins Earned through Mining, below.

Methodologies for Determining Basis of a Sold Bitcoin

Presumably, basis for determining gain or loss from a specific wallet could be done under a FIFO (first in first out), LIFO (last in first out), or specific-share identification method (commonly used in stock trading). As no guidance has been issued, taxpayers may be able to choose which method they wish to use, as long as they continue to report it consistently.[5] As a practical matter, however, it is difficult if not impossible to identify a specific Bitcoin to be sold.

IRS Remaining Vigilant

The IRS has not forgotten the issue of Bitcoin taxability in the years since 2014: on March 23, 2018, the IRS issued a reminder to taxpayers that income from virtual currency transactions is reportable on their income tax returns, and that the IRS will be monitoring this.

4 Section 13303 of the recent tax bill (P.L. 115-97) amended Section 1031(a) of the Internal Revenue Code of 1986, as amended, to replace the term “property” with the term “real property.”

5 LIFO may be more favorable for many cryptocurrency traders, as Bitcoins purchased earlier in time were likely purchased at a lower value than their present value. However, FIFO has the benefit of making it easier to satisfy the long-term capital gain holding period.

Treatment of Bitcoins Earned through Mining

Timing of Income Recognition

In Notice 2014-21, the IRS also determined that Bitcoins earned through mining were gross income at the time earned. This is a somewhat more questionable conclusion than the treatment of Bitcoins as property that is not a currency. To the extent that the Bitcoins mined have not been used, it seems plausible that the Bitcoins should be treated like a valuable metal such as gold, which is not income at the time mined, but only when used. Mined Bitcoins are also like an asset that someone generates by manufacturing: the value of the asset is not included in income until the asset is sold. On the other hand, consistent with the IRS’s position, when a party performs a service and receives payment for the service in the form of property, the value of the property received is income at that time. By analogy, it could be argued that the miner is being paid by the network for the work it is doing in verifying transactions. It’s an open question as to which analogy is more appropriate, although the IRS has expressed its view.

Tax Basis of Mined Bitcoins

Whether income is realized on the mining of a Bitcoin also has a bearing on the Bitcoin’s basis. If no income were realized on the mining of a Bitcoin, the Bitcoin would presumably have no tax basis other than capitalized costs used in production of the Bitcoin,[6] such as the appropriate portion of the cost of hardware used in mining (which is subject to potential depreciation or amortization). If, however, income is recognized at the time of mining (based on fair market value), the miner would take this full fair market value as tax basis in the Bitcoin.

Deductions

Regardless of whether income is realized on the mining of a Bitcoin, certain costs associated with

6 See generally Treas. Reg. § 1.263(a)-4.

mining Bitcoins may be deductible, such as the cost of the electricity used in mining the Bitcoins – although there is no specific IRS guidance on this point. Taxpayers may wish to consider whether their mining is an investment activity (in which case deductions may not be available, pursuant to the recently enacted tax law[7]) or whether it rises to the level of a trade or business. Additionally, miners should consider whether certain costs may or must be capitalized (rather than deducted) under the applicable Treasury Regulations.

Hard Fork

Background

A hard fork with a cryptocurrency occurs when there is an update to the currency software or the blockchain and some miners do not agree to the changes and continue using the old software or the old blockchain. This has already occurred a few times. One example occurred with Ether, when a change was made to undo a program run on Ethereum that had been hacked, and the hacked version of the blockchain was continued under the name Ether Classic. Another example is Bitcoin Cash, which incorporates a software change to Bitcoin. Bitcoin Cash was not accepted by some miners, who have continued using the old software – Bitcoin. Going forward, transactions on the new software (Bitcoin Cash) are not recognized by the old software (Bitcoin) and vice versa. It is generally presumed that one of the two will eventually decline in usage as the other becomes more widely accepted, although that is speculation at this point in time.

Effect for Holders of the Cryptocurrency

With a hard fork, holders of the old coin get an equivalent amount of the new coin in addition to their old coin. This does not create "free money," however – it is analogous to a stock split or stock dividend: the value of a cryptocurrency immediately after a hard fork would generally be expected to be split between the old version and the new version.

Guidance on Tax Treatment of a Hard Fork

The IRS has not indicated how it believes a hard fork should be treated. The American Bar Association's tax committee recently issued a report[8] suggesting that a good analogy could be made to transactions that give rise to a recognized gain or loss, but also that a good analogy could be made to transactions that do not give rise to a recognized gain or loss. Until the IRS determines the appropriate treatment, the ABA report suggested a safe harbor, whereby a hard fork would result in a recognition transaction, but the new coin would be considered to have a value and basis of $0. The report recognized that this would mean any gain (after holding the new coin for more than one year) would be long term capital gain. Of course, it may be debated which coin should be treated as the "new" coin.

By Micah W. Bloomfield a partner in the FinTech and Tax Practice Groups of Stroock & Stroock & Lavan LLP, and Brian J. Senie, an associate in Stroock's Tax Practice Group.

For More Information

The issues discussed in this *Stroock Special Bulletin* remain at the forefront of cryptocurrency taxation, and Stroock will provide updates on developments in this area. If you have questions, or would like additional information, please contact:

Micah W. Bloomfield
212.806.6007
mbloomfield@stroock.com

Ian DiBernardo
212.806. 5867
idibernardio@stroock.com

Naji Massouh
212.806.6044
nmassouh@stroock.com

Brian J. Senie
212.806.5928
bsenie@stroock.com

7 Section 11045 of the recent tax bill added a new Section 67(g) to the Internal Revenue Code of 1986, as amended, which provides that miscellaneous itemized deductions are suspended through 2025.

8 Comments to the IRS commissioner dated March 19, 2018.

New York
180 Maiden Lane
New York, NY 10038-4982
Tel: 212.806.5400
Fax: 212.806.6006

Los Angeles
2029 Century Park East
Los Angeles, CA 90067-3086
Tel: 310.556.5800
Fax: 310.556.5959

Miami
Southeast Financial Center
200 South Biscayne Boulevard, Suite 3100
Miami, FL 33131-5323
Tel: 305.358.9900
Fax: 305.789.9302

Washington, DC
1875 K Street NW, Suite 800
Washington, DC 20006-1253
Tel: 202.739.2800
Fax: 202.739.2895

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