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Cryptocurrency Hard Forks and Revenue Ruling 2019-24

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INTRODUCTION

In a recent article appearing in the *Virginia Tax Review*, I analyzed the income tax issues that arose from hard forks of cryptocurrencies.[1] That article focused on the August 1, 2017 hard fork of the Bitcoin blockchain that resulted in the creation of Bitcoin Cash, a new cryptocurrency. The hard fork resulted in a windfall to owners of Bitcoin, who came to own one unit of Bitcoin Cash for each unit of Bitcoin owned at the time. After considering the difficulties of taxing the new units as income immediately, I argued that the Internal Revenue Service ("IRS") should tax new units of Bitcoin Cash as "open transactions," deferring income tax consequences until the owner sells or exchanges the units. As that article went to press, the IRS released Revenue Ruling 2019-24[2] (the "Ruling"), which describes the taxation of cryptocurrency hard forks.[3] The Ruling seems to embrace an "immediate taxation" approach that my article considered but rejected.

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[1] *See* Eric D. Chason, *A Tax on the Clones: The Strange Case of Bitcoin Cash*, 39 VA. TAX REV. 1 (2019).

[2] Rev. Rul. 2019-24, 2019-44 I.R.B. 1004.

[3] *See also Frequently Asked Questions on Virtual Currency Transactions*, INTERNAL REVENUE SERV., https://www.irs.gov/individuals/international-taxpayers/frequently-asked-questions-on-virtual-currency-transactions (last visited Nov. 21, 2019) (updating prior guidance to incorporate the Ruling).

This essay evaluates the Ruling in light of my recent article. This essay will review some of the arguments against immediate taxation and in favor of open transaction. Perhaps more importantly, this essay will identify inconsistencies and oddities that appear in the Ruling. In particular, the Ruling, by its terms, does not seem to apply to Bitcoin Cash. Even if the IRS wants to apply immediate taxation, it should nevertheless release new guidance that applies more clearly to Bitcoin Cash.

I. BITCOIN AND THE BITCOIN CASH HARD FORK

Bitcoin is governed by community consensus. Its blockchain is a history of past Bitcoin transactions (akin to real-estate records maintained by a register of deeds) that the community recognizes as valid. The community must also agree on a protocol by which transactions are added to the blockchain.[4]

Bitcoin Cash arose in 2017 from a schism within the Bitcoin community. Dissidents within the community believed that Bitcoin needed changes in how it processed transactions. Such changes would occur only if the community, by consensus, agreed to the changes. Believing such agreement not to be forthcoming, the dissidents created a new—and in their view improved—Bitcoin. In essence, they cloned the original Bitcoin blockchain and added their desired features to it. The new, cloned blockchain resulted in a new cryptocurrency, known as Bitcoin Cash.[5]

Because Bitcoin Cash cloned the Bitcoin blockchain, every owner of Bitcoin owned a corresponding unit of Bitcoin Cash.[6] For income-tax purposes, the interesting question is when should the newly created Bitcoin Cash units be taxed as income. In my prior article, I argued that the units should be taxed under an "open transaction" approach. Under this approach, owners would pay tax (at ordinary rates) when they sold or exchanged their new units.[7]

In 2014, the IRS published Notice 2014-21,[8] its only guidance on the taxation of cryptocurrencies published before October 2019.[9] The Notice describes cryptocurrencies as "property" for federal income tax purposes and not as "foreign currency." It did not, though, address the taxation of hard

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4 *See* Chason, *supra* note 1, at 6.

5 *See id.* at 14–17.

6 *See id.* at 18.

7 *See id.* at 35–37.

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

9 *See* David G. Chamberlain et al., *Disappearing Forks and Magical Airdrops*, 165 TAX NOTES FED. 791, 793 (Nov. 4, 2019) ("Before Rev. Rul. 2019-24, the only official guidance regarding cryptocurrency was Notice 2014-21, . . . which was issued before the BCH hard fork had occurred, and thus unsurprisingly did not address the issue.") (citations omitted).

forks. In October 2019, the IRS published the Ruling,[10] which seems to take the position that cryptocurrencies created by a hard fork are taxed immediately upon the creation of the new cryptocurrency. Closer inspection of the Ruling, however, shows that it has an ambiguous and problematic application to Bitcoin Cash.

II. REVENUE RULING 2019-24

A. Hard Fork Followed by Airdop of New Cryptocurrency

The Ruling describes the following situation, which results in immediate taxation:

> B holds 50 units of Crypto R, a cryptocurrency. On Date 2, the distributed ledger for Crypto R experiences a hard fork, resulting in the creation of Crypto S. On that date, 25 units of Crypto S are airdropped to B's distributed ledger address and B has the ability to dispose of Crypto S immediately following the airdrop. B now holds 50 units of Crypto R and 25 units of Crypto S. The airdrop of Crypto S is recorded on the distributed ledger on Date 2 at Time 1 and, at that date and time, the fair market value of B's 25 units of Crypto S is $50. B receives the Crypto S solely because B owns Crypto R at the time of the hard fork. After the airdrop, transactions involving Crypto S are recorded on the new distributed ledger and transactions involving Crypto R continue to be recorded on the legacy distributed ledger.[11]
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> . . . .
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> B received a new asset, Crypto S, in the airdrop following the hard fork; therefore, B has an accession to wealth and has ordinary income in the taxable year in which the Crypto S is received. . . . B has dominion and control of Crypto S at the time of the airdrop, when it is recorded on the distributed ledger, because B immediately has the ability to dispose of Crypto S. The amount included in gross income is $50, the fair market value of B's 25 units of Crypto S when the airdrop is recorded on the distributed ledger. B's basis in Crypto S is $50, the amount of income recognized.[12]

Thus, the Ruling addresses a situation in which a hard fork of a cryptocurrency is followed by an "airdrop" of units of the newly created cryptocurrency. This reference to an airdrop, however, makes the situation unusual. It does not describe the creation of Bitcoin Cash, and it might not describe any actual cryptocurrency transactions.

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[10] Rev. Rul. 2019-24, 2019-44 I.R.B. 1004.

[11] *Id.* at 1004.

[12] *Id.* at 1005.

The reference to a hard fork makes perfect sense. Bitcoin Cash units were created by a hard fork, which clones an existing blockchain (e.g., Bitcoin). Owners kept their original units (Bitcoin) but also came to own new units (Bitcoin Cash) on the cloned blockchain. The hard fork directly creates the new units of cryptocurrency, because the hard fork replicates all past transactions of the original cryptocurrency. The parties creating the hard fork took no additional steps to transfer the new units. They did not, in the words of the Ruling, "airdrop" the new units to anyone.[13]

The difference is not merely semantic. The Ruling's situation envisions a transfer by which units of the new cryptocurrency "are airdropped" to the owner's address and "recorded on the distributed ledger." However, since a hard fork operates by cloning a preexisting blockchain, it arguably does not result in a transfer. The hard fork itself creates new units of cryptocurrency; it does not create any additional transactions that are recorded on a distributed ledger (or blockchain).The Bitcoin Cash developers "simply released software that recognized Bitcoin owners as owners of a new cryptocurrency, Bitcoin Cash. These owners did not receive any formal notice, nor did they have to take any affirmative steps to accept their Bitcoin Cash."[14]

Airdrops, in contrast to hard forks, do not arise from the replication of an entire blockchain. Commonly, promoters airdrop "tokens" that the promoters created using the smart-contract features of the Ethereum system. Tokens can function as currency, but they can also give owners other privileges (e.g., access to or ownership of a resource).[15] For example, Initial Coin Offerings (or "ICOs") are commonly structured as tokens.[16]

An airdrop is a free giveaway of a token. Promoters might give tokens away in order to raise visibility or jumpstart a network for their tokens.[17] So, both hard forks and airdrops result in a user receiving a free crypto asset. The main difference is the type of asset transferred (cryptocurrency or token) and the method of creation (replication of an existing blockchain or smart contract).

Another difference is that an airdrop can target select users for the giveaway. Promoters can specify the amounts of tokens that particular users receive.[18] The Bitcoin Cash hard fork, in contrast, resulted in every Bitcoin owner getting a new unit of Bitcoin Cash (on a one-to-one basis). Because the Ruling confuses airdrops with hard forks, the situation quoted above does

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[13] *See* Chamberlain et al., *supra* note 9, at 794–95.

[14] Chason, *supra* note 1, at 30.

[15] *See* ANDREAS M. ANTONOPOULOS & DAVIN WOOD, MASTERING ETHEREUM 221–22 (2019).

[16] *See id.* at 230.

[17] *See* Chamberlain et al., *supra* note 9, at 793.

[18] *See What Is A Bitcoin Airdrop?*, FORKDROP.IO, https://forkdrop.io/what-is-a-bitcoin-airdrop (last visited Nov. 21, 2019).

not seem to apply to the creation of Bitcoin Cash. Bitcoin Cash was created by a hard fork, but new units were not airdropped to anyone.

B. Hard Fork Not Followed by Airdop or Other Transfer

The Ruling identified one other situation, this one not resulting in taxation:

> A holds 50 units of Crypto M, a cryptocurrency. On Date 1, the distributed ledger for Crypto M experiences a hard fork, resulting in the creation of Crypto N. Crypto N is not airdropped or otherwise transferred to an account owned or controlled by A.[19]
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> . . . .
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> A did not receive units of the new cryptocurrency, Crypto N, from the hard fork; therefore, A does not have an accession to wealth and does not have gross income . . . as a result of the hard fork.[20]

Like the situation described above, this one has puzzling aspects. It starts normally, describing a hard fork that results in the creation of new units of a cryptocurrency. However, in the IRS's situation, an owner of the original cryptocurrency somehow does not end up owning any of these new units.

Hard forks do not always result in the creation of a new cryptocurrency. In technical terms, a hard fork occurs when some users adopt new software that is inconsistent with past software. With Bitcoin Cash, the developers wanted changes to transactions that would have been impossible under existing Bitcoin standards. If all users had adopted the new standard and abandoned the old, then there would have been no new cryptocurrency. Originally, the Bitcoin Cash developers had hoped that all Bitcoin users (or at least a majority of important users) would adopt their proposed changes. If that had occurred, then there would have been no new cryptocurrency. Bitcoin would have simply continued under the new standard.[21]

The Ruling does not, however, address this type of hard fork, which is simply a technical change to an existing cryptocurrency. In the Ruling, the hard fork results in the creation of a new cryptocurrency but some users do not receive any units in it. Perhaps the Ruling is attempting to clarify the tax treatment of owners who hold their cryptocurrency indirectly, via third parties like the Coinbase cryptocurrency exchange. Such owners give control of their cryptocurrency addresses to a third party and may not have immediate access to newly created units of cryptocurrency.

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19 Rev. Rul. 2019-24, 2019-44 I.R.B. 1004, 1004.

20 *Id.* at 1005.

21 *See* Chason, *supra* note 1, at 16–17.

Suppose A (the character from the Ruling) held 50 units of Bitcoin indirectly via Coinbase immediately prior to the hard fork. Coinbase, not A, controls A's Bitcoin address. After the hard fork, A's Bitcoin address would, in fact, have control over 50 newly created units of Bitcoin Cash. However, since Coinbase controls A's address, A would not personally have access to those new units until Coinbase agreed to support Bitcoin Cash. In fact, Coinbase did not support Bitcoin Cash until December 2017.[22]

While the Ruling should have addressed the taxation of owners who held Bitcoin through Coinbase, the quoted situation does not seem to apply. Coinbase users did, eventually, receive units of Bitcoin Cash, but they had to wait for more than four months. The Ruling, in contrast, envisions an existing owner who does not receive any new units created by a hard fork. This situation is peculiar, and the IRS should have described why the existing owner did not come to own any units in the new cryptocurrency. As with the prior situation, this one seems to describe a situation that does not arise in the real world.

C. Additional Problems with the IRS's Immediate-Taxation Approach

Above, I argued that the Ruling contains numerous inconsistencies and oddities, making enforcement and public acceptance a difficult task for the IRS. Most fundamentally, the Ruling does not clearly answer the question of whether the Bitcoin Cash hard fork should have resulted in immediate taxation. I will assume, for the rest of this essay, that the IRS would subject Bitcoin Cash to immediate taxation (and that the inconsistencies and oddities result from the IRS's lack of familiarity with cryptocurrencies). Even with this assumption, the immediate-taxation approach still has several problems.

Perhaps most fundamentally, the Ruling treats the new cryptocurrency as having been created at a precise date and time.[23] As described in my prior article, the Bitcoin Cash hard fork did not have a precise time at all. It may have been 13:20 GMT on August 1, 2017, when Bitcoin and Bitcoin Cash stopped having a common transaction history. Or it may have been almost five hours later, when miners first validated new blocks on the Bitcoin Cash blockchain. The lack of precision matters because reported prices fluctuated wildly over these initial five hours. Depending on the time and source, reported prices ranged from $200 to $400 per unit of Bitcoin Cash over the initial five hours.

Moreover, these early price reports may not have been very reliable, because trading volumes were very low. Coinbase, a large cryptocurrency

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[22] *See* Chason, *supra* note 1, at 30.

[23] *Cf.* Rev. Rul. 2019-24, 2019-44 I.R.B. 1004, 1004 ("The airdrop of Crypto S is recorded on the distributed ledger on Date 2 at Time 1.").

exchange did not even support Bitcoin Cash until more than four *months* after August 1, 2017. Given these valuation difficulties, the IRS should not be surprised if some taxpayers do in fact report their Bitcoin Cash as immediate income but value these units at zero dollars.[24]

III. THE NEED FOR A NEW RULING

In my previous article, I proposed that hard forks should be taxed as "open transactions." Under this proposal, recipients would have ordinary income when they sell or exchange cryptocurrencies previously received in a hard fork. This approach lowers administrative burdens on taxpayers who receive cryptocurrencies or tokens that have little or no value.[25] Under the Ruling, such taxpayers would seem to have a duty to investigate whether they received such new assets and to determine their value.

Under an open-transaction approach, taxpayers could safely ignore such new assets. When they sell, they would have income, but not before. Moreover, an open-transaction approach would drastically reduce the valuation disputes that the Ruling invites. Valuing the taxpayer's actual transaction is a much easier task than valuing scattered transactions reported on the internet when a cryptocurrency is first created. For these reasons, the IRS should withdraw Revenue Ruling 2019-24 and replace it with a new ruling that adopts open-transaction treatment.

Even assuming that the IRS's approach of immediate taxation is better (or simply the IRS's position), the IRS should still issue a new revenue ruling. The Bitcoin Cash hard fork was, by far, the most important hard fork measured in term of the value of newly created cryptocurrency.[26] Yet—bizarrely—Revenue Ruling 2019-24 does not squarely apply to it. The Bitcoin Cash promoters did not distribute their new cryptocurrency via an airdrop (as described in the Ruling). Also, because Bitcoin Cash cloned the Bitcoin blockchain, existing Bitcoin owners received new units of Bitcoin Cash on a one-to-one basis (unlike the 50% basis described in the Ruling). Tax academics and professionals might shrug at these inconsistencies, viewing them as inconsequential technical details. However, the IRS should view its intended audience as the community of cryptocurrency users, some

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[24] Some taxpayers take a similar approach in reporting their receipt of an unvested profits interest in a partnership. They make a "protective 83(b) election" which includes the interest in income upon receipt but reports the value as zero. *See, e.g.*, Glenn E. Mincey et al., *Rev. Proc. 2001-43, Section 83(b), and Unvested Profits Interests—The Final Facet of* Diamond?, 95 J. TAX'N 205, 227 (2001) ("[T]he general consensus among tax lawyers and accountants seems to be that clients should continue to make 'protective' Section 83(b) elections in respect of unvested profits interests").

[25] *See* Chason, *supra* note 1, at 35–37.

[26] *Cf. Bitcoin Forks and Airdrops*, FORKDROP.IO, https://forkdrop.io (last visited Nov. 23, 2019) (listing Bitcoin hard forks by value).

of whom may hold the IRS in low regard and will likely view the IRS's errors as additional confirmation of their opinions.[27]

To support its immediate-taxation position, the IRS should withdraw Revenue Ruling 2019-24 and replace it with a new Revenue Ruling that details how an August 2017 owner of Bitcoin should report her new holdings of Bitcoin Cash. As a starting point, the IRS could assume that the owner holds 100 units of Bitcoin, controlling those units directly (rather than through Coinbase or other third party). According to the IRS's immediate-taxation position, the owner would have gross income equal to the value of 100 new units of Bitcoin Cash created by the hard fork.

The IRS should specifically answer two essential questions about these Bitcoin Cash units. What was the precise time at which the new units of Bitcoin Cash were created? What was the value of one unit of Bitcoin Cash at that time? These facts do not vary across taxpayers, and virtually every piece of relevant information is publicly available. Rather than forcing every taxpayer to answer these basic questions separately, the IRS could answer them once. Or, perhaps, the IRS will come to realize that ready answers do not exist and will direct taxpayers to defer income as open transactions.

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[27] *Cf., e.g.*, Matthew Beedham, *The IRS' Latest Cryptocurrency Tax Guidance Shows It Still Doesn't Get It*, TNW (Oct. 10, 2019, 8:57 AM) https://thenextweb.com/hardfork/2019/10/10/irs-cryptocurrency-tax-guidance-doesnt-get-it-mess/ (asserting that the IRS's guidance "suggests the IRS still doesn't 'get' cryptocurrency").