# FREE MONEY, BUT NOT TAX-FREE: A PROPOSAL FOR THE TAX TREATMENT OF CRYPTOCURRENCY HARD FORKS

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*Cryptocurrency has attracted extraordinary attention as one of the greatest financial innovations in recent years. Equally noticeable are the increasingly frequent cryptocurrency events, such as hard forks. Put simply, a cryptocurrency hard fork happens when a single cryptocurrency splits in two, which results in original coin owners receiving free forked coins. Such hard forks have resulted in billions of dollars distributed to U.S. taxpayers. Despite ongoing regulatory efforts, to date, the Internal Revenue Service (IRS) has yet to take a clear position on the tax treatment of cryptocurrency hard forks. The lack of useful guidance when filing tax returns has left taxpayers genuinely confused in the past few years.*

*To fill this regulatory gap, this Note proposes a framework for cryptocurrency hard fork taxation. It explains the underlying technology of cryptocurrency hard forks, examines the recommended guidelines from the American Bar Association and the Association of International Certified Professional Accountants on cryptocurrency hard fork taxation, and references the current practices in Japan and the United Kingdom to lay a solid foundation for the proposed framework. Ultimately, this Note proposes a two-pronged tax on cryptocurrency hard forks. The first tax is levied on the profit made from the receipt of forked coins, and the second tax is levied on the profit made from the disposition of forked coins. A concrete proposal is provided for the applicable coin valuation, tax basis, holding period, and tax rate for the two prongs.*

*Aiming to propose a tax treatment that is closest to the nature of cryptocurrency hard forks, this proposal considers various practical concerns, such as the inefficiency of the cryptocurrency market, the indirect possession of forked coins through third-party exchanges, and the fluctuating trading prices of forked coins when determining the valuation, tax basis, and holding period. This proposal not only provides clarity for taxpayers in filing*

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*tax returns and fulfilling tax obligations, but it also relieves the potential tax deferral and tax evasion problems that arise after a cryptocurrency hard fork.*

## INTRODUCTION

Over the past few years, investor, consumer, and merchant confidence in cryptocurrencies has gradually increased.[1] Bitcoin, the most widely recognized cryptocurrency, has even been officially recognized as a legal form of tender in several countries, including Japan and Germany.[2] However, as Bitcoin's popularity has grown—being used for everything from buying pizza and booking flights to buying illegal drugs on online black markets—the transaction network has started to get bogged down.[3] Each Bitcoin transaction has an average processing time of ten to fifteen minutes.[4] This is because, at Bitcoin's creation, its developers designed the blocks to have a relatively low size limit to reduce spam transactions.[5] With this size limit, Bitcoin can only handle 4.4 transactions per second.[6] As the number of transactions increases, this processing speed makes Bitcoin transactions substantially slower than other major cryptocurrencies, such as Ethereum and Ripple, which can handle fifteen and 1500 transactions per second, respectively.[7] A major electronic payment processing system like Visa can handle more than 24,000 transactions per second.[8]

Members of the Bitcoin community disagree on how to solve this scaling issue. While some support a block size increase, others do not want change.[9] Such a split within the Bitcoin community can cause the blockchain to fork

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1. *See* Omri Marian, *Are Cryptocurrencies Super Tax Havens?*, 112 MICH. L. REV. FIRST IMPRESSIONS 38, 39 (2013).

2. *See* Adam Gardiner, *German Government to Treat Bitcoin Like Legal Tender*, COIN IRA (Mar. 5, 2018), https://coinira.com/german-government-treat-bitcoin-like-legal-tender [http://perma.cc/3XKG-62RM]; *see also* Charlie McCombie, *New Regulations in Japan Recognise Bitcoin as a Legal Form of Payment*, COINTELEGRAPH (Mar. 8, 2016), https://cointelegraph.com/news/japan-recognise-bitcoin-payments-legal [http://perma.cc/U4BJ-FVMR].

3. Ben Popken, *Why Did Bitcoin 'Fork' Today and What Is 'Bitcoin Cash?,'* NBC NEWS (Aug. 1, 2017, 4:09 PM), https://www.nbcnews.com/business/consumer/why-bitcoin-forking-today-what-bitcoin-cash-n788581 [http://perma.cc/8PZZ-3P9R].

4. *See id.*; *see also Bitcoin Forks: Fully Comprehensive Guide*, BLOCKGEEKS, https://blockgeeks.com/guides/bitcoin-forks-guide [http://perma.cc/KMT2-THE6] (last visited Apr. 10, 2019).

5. The size limit of Bitcoin blockchain is 1 MB. *See Bitcoin Forks: Fully Comprehensive Guide*, *supra* note 4.

6. *Id.*

7. *See Blockchain Speeds and the Scalability Debate*, BLOCKSPLAIN (Feb. 28, 2018), https://blocksplain.com/2018/02/28/transaction-speeds [http://perma.cc/T9NG-932J].

8. *Visa Acceptance for Retailers*, VISA, https://usa.visa.com/run-your-business/small-business-tools/retail.html [http://perma.cc/8FSH-F984] (last visited Apr. 10, 2019).

9. For arguments for and against a block size increase, see *Bitcoin Forks: Fully Comprehensive Guide*, *supra* note 4.

and create two simultaneously developing blockchains with identical historic transactions.[10] This was how the Bitcoin hard fork happened.[11] On August 1, 2017, the Bitcoin blockchain experienced a hard fork that resulted in Bitcoin holders receiving Bitcoin Cash at a ratio of one Bitcoin to one Bitcoin Cash.[12] At the time of the hard fork, one unit of Bitcoin Cash was worth $545.52.[13]

As cryptocurrencies proliferated, forty-four similar hard forks occurred in the following year, which produced various new digital tokens.[14] These hard forks resulted in people around the world automatically receiving cryptocurrencies worth billions of dollars and raised various tax issues.[15] For example, how might such an accretion of wealth be taxed? Have recipients of forked coins realized taxable income? If so, when exactly is the income realized and how should the amount of the income be calculated? All these questions remain unanswered by the Internal Revenue Service (IRS).[16]

Despite the regular occurrence of cryptocurrency hard forks and the important implications for income tax law, the legal and regulatory environment for such events is not fully developed, especially in the area of taxation.[17] In the absence of useful guidance, many taxpayers have filed their tax returns in a state of genuine confusion and under the risk of penalties.[18] Others might have completely failed to report income generated through cryptocurrency events or transactions.[19] In fact, only 802 people reported Bitcoin on their tax returns in 2015.[20] As a result, the IRS had to use its John

10. *See What Is Hard Fork?*, COINTELEGRAPH, https://cointelegraph.com/bitcoin-cash-for-beginners/what-is-hard-fork#what-is-a-hard-fork [http://perma.cc/3J4D-EC9J] (last visited Apr. 10, 2019).

11. *See* Shannon Liao, *Bitcoin Has Split in Two, So You Can Have Double the Cryptocurrency*, VERGE (Aug. 1, 2017, 1:45 PM), https://www.theverge.com/2017/8/1/16075276/bitcoin-cash-hard-fork-coinbase [http://perma.cc/MWU8-BRJE].

12. *See* Amy Castor, *Bitcoin Cash 101: What Users Need to Know Before the Fork*, COINDESK (Aug. 2, 2017), https://www.coindesk.com/bitcoin-cash-101-need-know-tomorrows-fork [http://perma.cc/ZU5V-4ENW].

13. *Bitcoin Cash Price (BCH)*, COINBASE, https://www.coinbase.com/price/bitcoin-cash [http://perma.cc/V4CH-VYVZ] (last visited Apr. 10, 2019).

14. For examples of recent cryptocurrency hard forks, see *All 2018 Cryptocurrency Forks*, HYPE.CODES, https://hype.codes/march-2018-cryptocurrency-forks [http://perma.cc/2AWR-QLHC] (last visited Apr. 10, 2019).

15. Alexander Stern, *Top Tax Law Professors' Surprising Thoughts on Cryptocurrencies*, ATTORNEY IO (Apr. 13, 2018), https://www.attorneyio.com/tax-law-professors-cryptocurrencies [http://perma.cc/T2TQ-DRKD].

16. *See generally* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

17. *See* Jefferson Nunn, *IRS Considering Tax Guidance for Hard Fork "Hodlers*,*"* BTC MANAGER (Sept. 1, 2018), https://btcmanager.com/irs-considering-tax-guidance-for-hard-fork-hodlers [http://perma.cc/KT8Z-GANW].

18. *See id.*

19. *See* Joshua Althauser, *Only 802 People Paid Taxes on Bitcoin Profits, IRS Says*, COINTELEGRAPH (Sept. 12, 2017), https://cointelegraph.com/news/only-802-people-paid-taxes-on-bitcoin-profits-irs-says [http://perma.cc/6PY4-ADRR].

20. *Id.*

Doe summons authority[21] in November 2016 to seek the records of half a million Americans who held cryptocurrency between 2013 and 2015.[22]

This Note proposes a regulatory framework for cryptocurrency hard fork taxation in the United States. While many questions remain in the taxation of sale, exchange, and use of cryptocurrency, this Note focuses exclusively on the tax implications of cryptocurrency hard forks. In addition, the scope of the proposal raised in this Note is limited to the taxation of forked coins held as capital assets in the hands of taxpayers.[23]

Part I of this Note introduces the technology underlying a cryptocurrency hard fork, explores the traditional notion of taxable income in the context of cryptocurrency hard forks, and calls attention to the dearth of tax regulations addressing cryptocurrency hard forks in the United States. Part II explores several potential cryptocurrency hard fork taxation resolutions, including: (1) the direct application of traditional tax treatments to cryptocurrency hard forks, such as treating them like stock splits and stock dividends, corporate spin-offs, or treasure troves; (2) the American Bar Association's (ABA) and Association of International Certified Professional Accountants's (AICPA) recommendations to the IRS; and (3) the practices in other countries, such as Japan and the United Kingdom. Part III explains why none of the resolutions proposed in Part II are feasible solutions to remedy the current hard fork regulatory gap in the United States. Finally, Part IV proposes a detailed regulatory framework for cryptocurrency hard fork taxation in the United States and provides an illustration of the proposal to demonstrate its calculation.

## I. CRYPTOCURRENCY HARD FORKS: ANOTHER EXAMPLE WHERE INCOME TAX LAW LAGS BEHIND TECHNOLOGICAL DEVELOPMENT

To propose a regulatory framework for cryptocurrency hard fork taxation, it is necessary to outline the underlying technology of cryptocurrency hard forks and the current status of regulatory efforts in this area. Part I.A provides the technological background information necessary to understand cryptocurrency hard forks. Part I.B explains why forked coins are taxable income. Part I.C briefly introduces the existing regulations concerning

21. A John Doe summons is an information-gathering tool that allows the IRS to gather information and records about a class of unidentified taxpayers believed to have violated tax law. *See* Matthew D. Lee, *John Doe Summonses: A Key IRS Tool Against Tax Evasion*, FOX ROTHSCHILD LLP (Mar. 2, 2017), https://taxcontroversy.foxrothschild.com/2017/03/john-doe-summonses-key-irs-tool-tax-evasion [http://perma.cc/6E53-DR2K].

22. *Brady Urges IRS to Issue Virtual Currency Guidance*, TAX NOTES (Sept. 19, 2018), https://www.taxnotes.com/tax-notes-today/cryptocurrency/brady-urges-irs-issue-virtual-currency-guidance/2018/09/20/28ftq [http://perma.cc/ZUQ4-RWEJ].

23. Almost everything taxpayers own and use for personal purposes, pleasure, or investment is a capital asset. The IRS identifies inventory and other property held mainly for sale to customers in a trade or business as an example of property held as a noncapital asset. *See* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938. For more information about capital assets and the character of gain or loss, see INTERNAL REVENUE SERV., PUBL'N 544, SALES AND OTHER DISPOSITIONS OF ASSETS (2019), http://www.irs.gov/pub/irs-pdf/p544.pdf [http://perma.cc/7RJS-NXEX].

cryptocurrency in the United States against the background of the 2017 tax reform.

### *A. The Underlying Technologies: Blockchain, Cryptocurrency, and Hard Forks*

A blockchain is a digitized public ledger that can efficiently record transactions in a verifiable and permanent way.[24] A cryptocurrency is a digital medium of exchange created, stored, and operated on a blockchain.[25] There are an estimated 1600 cryptocurrencies already available.[26] Among the most well-known are Bitcoin, Ripple, Litecoin, and Ethereum.[27]

A hard fork occurs when a single blockchain splits into two due to a major change in the underlying rules of its protocol.[28] Unlike a soft fork, which is a backward-compatible method of upgrading a blockchain,[29] a hard fork is a software upgrade that is not backward-compatible.[30] Thus, coin holders who refuse to upgrade will not see the new transactions as valid and vice versa.[31] While coin holders operating under the old protocol continue to append blocks onto the original chain, those operating under the new protocol start

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24. *See* Marco Iansiti & Karim R. Lakhani, *The Truth About Blockchain*, HARV. BUS. REV. Jan.–Feb. 2017, at 118, 120. For more information about how a blockchain operates, see Arthur Iinuma, *What Is Blockchain and What Can Businesses Benefit from It?*, FORBES (Apr. 5, 2018, 7:00 AM), https://www.forbes.com/sites/forbesagencycouncil/2018/04/05/what-is-blockchain-and-what-can-businesses-benefit-from-it [http://perma.cc/4YRS-VES2]; *Blockchain: A Technical Primer*, DELOITTE INSIGHTS (Feb. 6, 2018), http://www2.deloitte.com/insights/us/en/topics/emerging-technologies/blockchain-technical-primer.html [http://perma.cc/ZVB4-6GZ5].

25. *See What Is Cryptocurrency: Everything You Must Need to Know!*, BLOCKGEEKS (Sept. 13, 2018), http://blockgeeks.com/guides/what-is-cryptocurrency [http://perma.cc/D3HM-AD27]; *see also* Justin E. Hobson, *Blockchain & Cryptocurrency—Two Roads Converge*, J. MULTISTATE TAX'N & INCENTIVES, July 2018, at 40, 40. For more information about cryptocurrency's history and functions, see *What Is Cryptocurrency. Guide for Beginners*, COINTELEGRAPH, https://cointelegraph.com/bitcoin-for-beginners/what-are-cryptocurrencies [http://perma.cc/FUC9-8QP7] (last visited Apr. 10, 2019).

26. *See What Is Blockchain Technology? A Step-by-Step Guide for Beginners*, BLOCKGEEKS (Mar. 1, 2019), https://blockgeeks.com/guides/what-is-blockchain-technology [http://perma.cc/FLR4-4UXA] [hereinafter *Step-by-Step Guide*].

27. *See What Is Cryptocurrency?*, DISCOVER, https://www.discover.com/credit-cards/resources/what-is-cryptocurrency [http://perma.cc/9T3V-FLTS] (last visited Apr. 10, 2019). For a more detailed description of Bitcoin Cash, Ripple, Litecoin, and Ethereum, see *Step-by-Step Guide*, *supra* note 26.

28. *See* Aziz Zainuddin, *Guide to Forks: Everything You Need to Know About Forks, Hard Fork and Soft Fork*, MASTER CRYPTO, https://masterthecrypto.com/guide-to-forks-hard-fork-soft-fork [http://perma.cc/U9TH-9D4V] (last visited Apr. 10, 2019).

29. Bisade Asolo, *Blockchain Soft Fork & Hard Fork Explained*, MYCRYPTOPEDIA (Nov. 1, 2018), https://www.mycryptopedia.com/hard-fork-soft-fork-explained [https://perma.cc/5SU6-9GPR]. For more information about a soft fork, see John Light, *The Differences Between a Hard Fork, a Soft Fork, and a Chain Split, and What They Mean for the Future Bitcoin*, MEDIUM (Sept. 25, 2017), https://medium.com/@lightcoin/the-differences-between-a-hard-fork-a-soft-fork-and-a-chain-split-and-what-they-mean-for-the-769273f358c9 [http://perma.cc/2KMX-U32T].

30. *See* Zainuddin, *supra* note 28.

31. *See* Nick Webb, Note, *A Fork in the Blockchain: Income Tax and the Bitcoin/Bitcoin Cash Hard Fork*, 19 N.C. J.L. & TECH. ONLINE 283, 285 (2018).

to append blocks onto a new chain.[32] The result is a permanent divergence.[33] As long as there is support for the minority chain, both chains will exist and develop simultaneously.[34]

A hard fork can occur for various reasons. For example, the Bitcoin and Bitcoin Cash hard fork happened due to a disagreement within the Bitcoin community about the scaling of its currency.[35] Other hard forks are implemented to reverse transactions or fix important security risks.[36] An example of a hard fork implemented to reverse transactions is the Ethereum hard fork. On June 18, 2016, an attacker drained $70 million of Ether, a crypto token that fuels the Ethereum platform, from Ethereum's largest distributed autonomous organization—the "DAO."[37] To help investors get their money back, the Ethereum network implemented a hard fork in the blockchain that erased all transactions after the attack and created a new blockchain that was identical to the Ethereum blockchain prior to the attack.[38] An example of a hard fork implemented to mitigate security risks is the Ethereum Classic hard fork.[39] On October 25, 2016, Ethereum Classic forked to deal with transaction spam that was slowing down the network.[40]

An important facet of hard forks is that users receive "free" coins.[41] To implement a hard fork, developers of the new chain take a "snapshot" of the ledger at a specific point in time to create a duplicate copy of the chain, which results in all holders of cryptocurrency on one chain holding an equal ratio of the forked coins on the new chain.[42] This Note focuses on hard forks because, unlike soft forks, they result in coin holders receiving assets in the form of new coins, which has income tax implications.

### *B. Are Forked Coins Taxable Income Under the* Glenshaw Glass *Test?*

Generally, a U.S. taxpayer's gross income means all income regardless of source.[43] Congress, through the Internal Revenue Code, intended "to use the

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32. *Id.*
33. *See What Is Hard Fork?*, *supra* note 10.
34. *See id.*
35. *See supra* note 9 and accompanying text.
36. *See, e.g.*, Jim Manning, *Ethereum Classic Successfully Hard Forks to Fix Security Flaws*, ETHNEWS (Oct. 25, 2016, 7:55 PM), https://www.ethnews.com/ethereum-classic-successfully-hard-forks-to-fix-security-flaw [http://perma.cc/5VMZ-9RVD].
37. *See* Antonio Madeira, *The DAO, the Hack, the Soft Fork and the Hard Fork*, CRYPTOCOMPARE (July 26, 2016), https://www.cryptocompare.com/coins/guides/the-dao-the-hack-the-soft-fork-and-the-hard-fork [http://perma.cc/H7R2-LMDX].
38. *See* Tiffany L. Minks, Note, *Ethereum and the SEC: Why Most Distributed Autonomous Organizations Are Subject to the Registration Requirements of the Securities Act of 1933 and a Proposal for New Regulation*, 5 TEX. A&M L. REV. 405, 419 (2018).
39. *See* Manning, *supra* note 36.
40. *See id.*
41. *See* Webb, *supra* note 31, at 298.
42. *See How to Get "Forked Coins" from Bitcoin Forks*, CRYPTOCURRENCY FACTS, https://cryptocurrencyfacts.com/how-to-get-forked-coins-from-bitcoin-forks [http://perma.cc/YU5Y-PZQN] (last visited Apr. 10, 2019).
43. *See* 26 U.S.C. § 61(a) (2012).

full measure of its taxing power"[44] and "to tax all gains except those specifically exempted."[45] The U.S. Supreme Court in *Commissioner v. Glenshaw Glass Co.*[46] laid out three elements for taxable income: (1) the "undeniable accession to wealth"; (2) that is "clearly realized"; and (3) "over which the taxpayer[] ha[s] complete dominion."[47] In some circumstances, forked coins satisfy all three elements and thus constitute taxable income.[48]

First, anything that causes an "accession to wealth" may be taxable income, regardless of form, source, or whether such an accession to wealth is expected.[49] Punitive damages, lottery winnings, and game show prizes all qualify as accessions to wealth, as do forked coins credited to investors after a cryptocurrency hard fork event.[50] Although the fluctuating price of this new property complicates the precise calculation of its fair market value, receipt of forked coins constitutes an accession of wealth.[51]

Second, an accession to wealth is "clearly realized" when the item of value is actually received.[52] Income, although not actually reduced to a taxpayer's possession, is constructively received in the taxable year during which it is credited to the taxpayer's account or otherwise made available for withdrawal at any time.[53] However, income should not be deemed constructively received "if the taxpayer's control of its receipt is subject to substantial limitations."[54] In the context of hard forks, whether the forked coins are "clearly realized" depends on the way investors hold their cryptocurrencies.[55] Investors who own private keys to their digital wallets have likely constructively received the forked coins at the time of the hard fork because they only need to download a new software that is compatible with the forked coins to receive them.[56] Despite the inconvenience, the

44. James v. United States, 366 U.S. 213, 218–19 (1961) (quoting Helvering v. Clifford, 309 U.S. 331, 334 (1940)).

45. *Id*.

46. 348 U.S. 426 (1955).

47. *See id.* at 431.

48. *See Is the Bitcoin Hard Fork Taxable?*, CROSS L. GROUP PC (Aug. 15, 2017), https://www.bitcointaxsolutions.com/yes-bitcoin-hardford-is-taxable-income-heres-why [http://perma.cc/E2G9-YS88].

49. *See id.*

50. *See id.*

51. *See* Tyson Cross, *Yes, the Bitcoin Hard Fork Really Is Taxable Income. Here's What You Need to Know*, FORBES (Oct. 17, 2017, 12:24 PM), https://www.forbes.com/sites/tysoncross/2017/10/17/yes-the-bitcoin-hard-fork-really-is-taxable-income-heres-what-you-need-to-know [http://perma.cc/6GWA-5BCS].

52. *See, e.g.*, Hornung v. Comm'r, 47 T.C. 428, 439–41 (1967) (holding that a Corvette awarded to an NFL player for his outstanding performance constituted taxable income in the year it was actually received from the dealership).

53. *See* Treas. Reg. § 1.451-2(a) (2018).

54. *Id.*

55. *See Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.

56. *See* ABA Section of Taxation, Comment Letter on Tax Treatment of Cryptocurrency Hard Forks for Taxable Year 2017, at 5–6 (Mar. 19, 2018), https://www.americanbar.org/content/dam/aba/administrative/taxation/policy/031918comments2.authcheckdam.pdf [https://perma.cc/PM8F-7XTM]. Owners who have instant access to the forked coins are those who have private keys to their own digital wallets. A private key is a string of random characters used to secure the coins held in the wallet. For more information about private keys

software download requirement is not unduly burdensome for a reasonably experienced computer user.[57] Since forked coins are already credited to these investors' personal accounts and are available for withdrawal after a few simple steps, investors cannot escape realization by refusing to download the new software to avoid the receipt of forked coins.[58]

Investors who own cryptocurrencies through a third-party exchange, on the other hand, need not download the software because the third-party exchange downloads the software for them, thereby "supporting" the forked coin created in the hard fork.[59] However, many third-party exchanges take no action to claim the forked coins until the security risks have been evaluated and mitigated.[60] Since these investors' receipt of forked coins is subject to substantial limitations, that is, the third-party exchange's decision to download the software and support the forked coins, their accession to wealth is not "clearly realized" at the time of the hard fork.[61]

Third, "complete dominion" generally requires taxpayers to have "full ownership and control over the accession to wealth."[62] For forked coins that are already credited to investors' accounts, there is no limit on ownership or control.[63] Owners of these forked coins are "free to transfer, sell, or otherwise dispose" of the forked coins without limitation.[64] Questions of control exist for investors who own cryptocurrencies through a third-party exchange.[65] No transfer, sale, or any form of disposal can be implemented before the third-party exchanges declare their support for the forked coins.[66]

Applying the *Glenshaw Glass* test to forked coins, this Note concludes that whether forked coins are taxable income depends on their ownership status. Forked coins that are already credited to investors' accounts, or otherwise made available to them through an easy software download, constitute taxable income as there is an undeniable accession to wealth, clearly realized, and over which investors have complete dominion.[67] When investors own forked coins through third-party exchanges that have not yet declared their support for the forked coins, the accession to wealth is not realized and investors do not have complete dominion over it.[68] Thus, in these situations, forked coins are not yet taxable income.[69]

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and wallets, see *Why Having a Wallet Where You Own Your Private Keys Is Essential*, MEDIUM (Dec. 16, 2017), https://medium.com/totle/why-having-a-wallet-where-you-own-your-private-keys-is-essential-519d9a374d8c [http://perma.cc/LH43-LQCY].

57. ABA Section of Taxation, *supra* note 56, at 5–6.
58. *See Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.
59. *See* ABA Section of Taxation, *supra* note 56, at 6.
60. *See id.*; *see also infra* notes 101–12 and accompanying text.
61. *See* ABA Section of Taxation, *supra* note 56, at 6, 8.
62. *Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.
63. *See id.*
64. *See id.*
65. *See* ABA Section of Taxation, *supra* note 56, at 8.
66. *See id.* at 6.
67. *See Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.
68. *See* ABA Section of Taxation, *supra* note 56, at 8.
69. *See id.*

### *C. A Lack of Tax Regulations on Cryptocurrency Hard Forks Against the Background of the 2017 Tax Reform*

In May 2013, the Government Accountability Office (GAO) published a report exploring the potential tax-compliance risks associated with virtual currencies and economies.[70] Legislators have also taken particular interest in cryptocurrencies.[71] On August 13, 2013, the U.S. Senate Committee on Homeland Security announced plans to inquire into a regulatory framework for Bitcoin.[72] Despite the increasing regulatory effort in the area of cryptocurrency, none of the current regulations address the tax treatment of cryptocurrency hard forks.[73]

On April 14, 2014, the IRS issued Notice 2014-21, which described how general tax principles apply to virtual currency transactions.[74] The Notice made clear that cryptocurrency is treated as "property" for federal tax purposes and, therefore, general tax principles applicable to property transactions will apply to cryptocurrency transactions.[75] While this classification may be clear enough for taxpayers who have invested in cryptocurrencies and later sold them for profit, it provides no guidance on how taxpayers should treat funds received through cryptocurrency events such as hard forks.[76] Notice 2014-21 only addressed the federal tax consequences of "transactions in, or transactions that use, convertible virtual currency"[77] and did not address tax consequences of cryptocurrency hard forks.[78]

The implications of existing regulations and their development must also be viewed in the context of the 2017 tax reform. "[O]n December 22, 2017, President Trump signed into law the most sweeping tax revision in decades."[79] Although this tax reform does not involve regulatory efforts concerning cryptocurrency hard forks, it may indirectly impact legislative

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70. *See generally* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-516, VIRTUAL ECONOMIES AND CURRENCIES: ADDITIONAL IRS GUIDANCE COULD REDUCE TAX COMPLIANCE RISKS (2013).

71. *See* Marian, *supra* note 1, at 38.

72. Timothy B. Lee, *Congress Starts Investigating Bitcoin*, WASH. POST (Aug. 13, 2013), http://www.washingtonpost.com/news/the-switch/wp/2013/08/13/congress-starts-investigating-bitcoin [http://perma.cc/5MAL-3EYD].

73. *See* ABA Section of Taxation, *supra* note 56, at 2.

74. *See generally* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

75. *See id.* For a more detailed analysis of Notice 2014-21, see James Gatto & Elsa S. Broeker, *Bitcoin and Beyond: Current and Future Regulation of Virtual Currencies*, 9 OHIO ST. ENTREPRENEURIAL BUS. L.J. 429, 447–50 (2015).

76. *See* Josiah Wilmoth, *Coin Center Calls for Congress to Give U.S. Taxpayers Safe Harbor on Bitcoin Hard Forks*, CCN (Aug. 21, 2018), https://www.ccn.com/coin-center-calls-for-congress-to-give-u-s-taxpayers-safe-harbor-on-bitcoin-hard-forks [http://perma.cc/G4D2-644K].

77. *See* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

78. *See id.*

79. MICHAEL J. GRAETZ, DEBORAH H. SCHENK & ANNE L. ALSTOTT, FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES 11 (8th ed. 2018).

and regulatory progress on this issue.[80] As the IRS implements the Tax Cuts and Jobs Act, it has fewer resources available to allocate to other functions, such as issuing advice on how to tax cryptocurrency hard forks.[81] Despite renewed requests from the AICPA,[82] the primary professional organization for accounting professionals, the IRS has not yet responded to either of the AICPA's recommendations.[83] The massive change and continued instability related to the new tax law may further complicate the development of an official tax treatment of cryptocurrency hard forks.[84]

## II. PROPOSED ALTERNATIVES: DIRECT APPLICATION OF EXISTING TAX REGULATIONS, ADOPTION OF RECENT RECOMMENDATIONS, OR REFERENCE TO FOREIGN PRACTICES

This Part examines several proposals to resolve the lack of regulation in the area of cryptocurrency hard forks. Specifically, Part II.A discusses events that have often been analogized to cryptocurrency hard forks, such as stock splits and dividends, corporate spin-offs, and treasure troves. Explanations of their tax treatments are provided to lay a solid foundation for discussing whether these tax treatments are directly applicable to cryptocurrency hard forks. Part II.B examines the ABA's and AICPA's recent recommendations to the IRS on cryptocurrency hard fork taxation. Part II.C examines the current practices of cryptocurrency hard fork taxation in other countries, such as Japan and the United Kingdom.

### *A. Imperfect Analogies: Stock Splits and Dividends, Corporate Spin-Offs, and Treasure Troves*

A stock split occurs when a company issues "two or more new shares in exchange for each old share without changing the proportional ownership interests of each shareholder."[85] One of the best-known examples of stock splits in recent years is the seven-for-one split of Apple shares in 2014.[86] After the split, each share that was originally traded at $645.57 became seven

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80. *See* Emily Horton, *2018 Funding Bill Falls Short for the IRS*, CTR. ON BUDGET & POL'Y PRIORITIES (Mar. 23, 2018, 10:30 AM), https://www.cbpp.org/blog/2018-funding-bill-falls-short-for-the-irs [http://perma.cc/2Z4S-SV34].

81. *See* Kelly Phillips Erb, *Tax Advocate Calls for More Funding, Better Customer Service at IRS*, FORBES (June 29, 2018, 10:23 AM), https://www.forbes.com/sites/kellyphillipserb/2018/06/29/tax-advocate-reports-calls-for-more-funding-better-customer-service-at-irs [http://perma.cc/J7CB-KLG5].

82. *See infra* notes 112–25 and accompanying text.

83. *See* Jon D. Feldhammer et al., *Accounting Group Again Requests Guidance from the IRS on Virtual Currency Tax Issues*, PERKINS COIE (June 11, 2018), https://www.virtualcurrencyreport.com/2018/06/accounting-group-again-requests-guidance-from-the-irs-on-virtual-currency-tax-issues [http://perma.cc/X5CJ-4LRG]. For details of the ABA's and AICPA's recommendations, see *infra* Part II.B.

84. *See* GRAETZ, SCHENK & ALSTOTT, *supra* note 79, at 12.

85. *Stock Split*, BLACK'S LAW DICTIONARY (10th ed. 2014).

86. *See* Daisuke Wakabayashi, *Apple's Share Price Is No Mistake, Reflects 7-for-1 Stock Split*, WALL ST. J. (June 9, 2014, 7:47 AM), https://www.wsj.com/amp/articles/BL-DGB-35681 [http://perma.cc/2UYQ-JMU5].

shares worth $92 each.[87] A stock dividend, on the other hand, is "a dividend paid in stock expressed as a percentage of the number of shares already held by a shareholder."[88]

Scholars have discussed the similarity between hard forks and stock splits or stock dividends.[89] Just as stock splits and stock dividends increase the number of stocks owned by stockholders, hard forks increase the total number of cryptocurrencies owned by coin holders.[90] Under current income tax law, stock splits and stock dividends that do not result in a change in the recipient's proportionate ownership of the issuing company are generally not taxable events.[91]

A corporate spin-off is "[a] corporate divestiture in which a division of a corporation becomes an independent company and stock of the new company is distributed [pro rata] to the corporation's shareholders."[92] The amount of stock in the new company that a shareholder receives during a spin-off depends on the amount of stock she held in the original corporation.[93] An example of a corporate spin-off is PayPal's spin-off from eBay on July 17, 2015.[94] After the spin-off, each eBay shareholder received one share of PayPal common stock per eBay share.[95]

Corporate spin-offs are commonly compared to cryptocurrency hard forks.[96] Both events involve the creation of new things and a pro rata distribution of new assets. Under current income tax law, corporate spin-offs that meet the tax exemption requirements under § 355 of the Internal Revenue Code are tax-free because the parent company and its shareholders do not recognize taxable capital gains.[97]

Treasure troves are "[v]aluables . . . found hidden in the ground or other private place, the owner of which is unknown."[98] Examples of treasure

87. *See id.*

88. *Stock Dividend*, BLACK'S LAW DICTIONARY (10th ed. 2014).

89. *See* David Klasing, *Crypto-Currency—Hard Forks and What They Mean for Your Tax Bill*, TAX L. OFF. DAVID WARREN KLASING (Jan. 16, 2018), https://klasing-associates.com/crypto-currency-hard-forks-mean-tax-bill [http://perma.cc/EK9F-MERB].

90. *See* Webb, *supra* note 31, at 299.

91. *See* Kathleen R. Semanski, *Income, from Whatever Exchange, Mine, or Fork Derived: The Basics of U.S. Cryptocurrency Taxation*, 37 BANKING & FIN. SERVICES POL'Y REP. 8, 12 (2018).

92. *Spin-Off*, BLACK'S LAW DICTIONARY (10th ed. 2014).

93. *See id.*

94. Rebecca Borison, *PayPal Spinoff Day Has Arrived—What Does It Mean for Investors?*, STREET (July 20, 2015, 10:46 AM), https://www.thestreet.com/story/13222445/1/paypal-spinoff-day-is-here--what-does-it-mean-for-investors.html [http://perma.cc/2QMA-C972].

95. *Id.*

96. Brandon M. Miller, *Basis Issues in Cryptocurrency*, TAX ADVISER (Aug. 1, 2018), https://www.thetaxadviser.com/issues/2018/aug/basis-issues-cryptocurrency.html [http://perma.cc/2TV5-R5GS].

97. *See* 26 U.S.C. § 355(a)–(d) (2012); Treas. Reg. § 1.355-2(e)(2) (2011).

98. *Treasure Trove*, BLACK'S LAW DICTIONARY (10th ed. 2014).

troves are cash found in a piano bought at an auction[99] and gold coins hidden in metal cans found while cleaning a henhouse.[100]

Some argue that forked coins resemble treasure troves as both are "free money."[101] Treasure troves are taxable. According to Treasury Regulation § 1.61-14(a), a "[t]reasure trove, to the extent of its value in United States currency, constitutes gross income for the taxable year in which it is reduced to undisputed possession."[102]

### *B. Existing Proposals: The ABA's and AICPA's Recommendations to the IRS*

This section examines the ABA and AICPA comment letters. Both letters propose potential tax treatments of cryptocurrency hard forks to the IRS. The background and content of the comment letters are explained and compared to highlight the major differences between the two recommendations.

On March 19, 2018, the ABA Section of Taxation submitted a comment letter regarding the tax treatment of cryptocurrency hard forks for taxable year 2017.[103] In the letter, the Section of Taxation asked the IRS to create a "temporary rule, in the form of a safe-harbor," for investment gains realized from cryptocurrency hard forks in 2017 while the IRS considered how to handle the phenomenon permanently moving forward.[104]

Specifically, the ABA comment letter recommended that the IRS treat taxpayers who owned cryptocurrencies that experienced a hard fork in 2017 as having realized the forked coin in a taxable event.[105] The forked coin's value at the time of the hard fork would be deemed zero, which would also constitute the taxpayer's basis in the forked coin.[106] By deeming the basis zero, the guidance preserves the full value of the forked coins for taxation.[107] The holding period[108] in the forked coins starts on the day of the hard fork.[109] Taxpayers who choose to follow this safe-harbor treatment are required to disclose the forked coins on their tax returns,[110] but they need not pay taxes for the forked coins until they sell or otherwise dispose of them, at which point the coins would be taxed as capital gains at their full market value.[111]

99. *See generally* Cesarini v. United States, 296 F. Supp. 3 (N.D. Ohio 1969).
100. *See generally* Danielson v. Roberts, 74 P. 913 (Or. 1904).
101. *See, e.g.*, Webb, *supra* note 31, at 298.
102. Treas. Reg. § 1.61-14(a) (1993).
103. *See* ABA Section of Taxation, *supra* note 56, at 1.
104. *See id.*
105. *See id.*
106. *See id.*
107. *See* Nunn, *supra* note 17.
108. The holding period refers to "the time during which a capital asset must be held to determine whether gain or loss from its sale or exchange is long-term or short-term." *Holding Period*, BLACK'S LAW DICTIONARY (10th ed. 2014).
109. ABA Section of Taxation, *supra* note 56, at 3.
110. *See id.*
111. *See* Josiah Wilmoth, *ABA Tax Experts Ask IRS to Create Safe Harbor for Cryptocurrency Hard Forks*, CCN (Mar. 21, 2018, 10:41 PM), https://www.ccn.com/aba-tax-experts-ask-irs-to-create-safe-harbor-for-cryptocurrency-hard-forks [http://perma.cc/V9AD-YJVE].

According to Karen Hawkins, the chair of the Section of Taxation, the recommended guidance avoids difficult timing and valuation issues and provides valuable information to the IRS about holders of the original and forked cryptocurrencies.[112] The ABA acknowledged that the recommended guidance may differ from the position the IRS eventually takes toward cryptocurrency hard forks, but it believed that the safe-harbor rule represented a reasonable interpretation of the law.[113]

On May 30, 2018, the AICPA submitted a letter to the IRS requesting additional guidance on items addressed in Notice 2014-21, as well as new issues such as chain splits.[114] It also suggested tax treatments for virtual currency events such as hard forks.[115] This is the second comment letter the AICPA has submitted on Notice 2014-21; the first was submitted on June 10, 2016.[116] The 2016 AICPA comment letter had not received any response from the IRS when AICPA renewed their request for additional guidance.[117]

In comparison to the ABA comment letter, the 2018 AICPA comment letter proposed to give taxpayers more flexibility by recognizing that taxpayers have the option to report cryptocurrency events as they deem appropriate.[118] It recommended that taxpayers be allowed to choose to report the hard fork within thirty days "by making an 'Election to Include a Virtual Currency Event as Ordinary Income in Year of Transfer,' similar (but not subject) to the process for making an election under section 83(b)."[119] For taxpayers who so chose, if they hold forked coins as capital assets, future disposition of the asset would generate a capital gain or loss and the income reported would become the basis in the virtual currency.[120] For taxpayers who choose not to make such an election, the hard fork should be reported as ordinary income when they later dispose of the fork coins.[121]

112. *See* Andrew Velarde, *ABA Seeks Safe Harbor on Cryptocurrency Splits*, TAX NOTES (Mar. 20, 2018), https://www.taxnotes.com/tax-notes-today/cryptocurrency/aba-seeks-safe-harbor-cryptocurrency-splits/2018/03/20/27wbw [http://perma.cc/7NVU-R9UK].

113. *See id.*

114. *See* AICPA, Comment Letter on Notice 2014-21: Virtual Currency Guidance (May 30, 2018), http://www.aicpa.org/content/dam/aicpa/advocacy/tax/downloadabledocuments/20180530-aicpa-comment-letter-on-notice-2014-21-virtual-currency.pdf [https://perma.cc/545Y-V5WS].

115. Nathan J. Richman, *AICPA Suggests New Virtual Currency Advice from IRS*, TAX NOTES (May 31, 2018), https://www.taxnotes.com/tax-notes-today/cryptocurrency/aicpa-suggests-new-virtual-currency-advice-irs/2018/05/31/2837q [http://perma.cc/66XU-L4HX].

116. For the full text of the 2016 AICPA comment letter, see AICPA, Comment Letter on Notice 2014-21: Virtual Currency Guidance (June 10, 2016), https://www.aicpa.org/content/dam/aicpa/advocacy/tax/downloadabledocuments/aicpa-comment-letter-on-notice-2014-21-virtual-currency-6-10-16.pdf [https://perma.cc/7YLB-8YB2].

117. *See* Feldhammer et al., *supra* note 83.

118. AICPA, *supra* note 114, at 10.

119. *See id.* Section 83(b) provides an opportunity for taxpayers to elect to be taxed at the time of the receipt of the property instead of waiting for the property to vest. *See* 26 U.S.C. § 83(b) (2012).

120. *See* AICPA, *supra* note 114, at 10.

121. *See id.*

As for the tax basis[122] and holding period, the 2018 AICPA comment letter agreed with the ABA comment letter and suggested that the value of forked coins should be deemed zero at the time of the hard fork, which becomes the basis of forked coins.[123] Specifically, the letter explained that the U.S. dollar translation for a new cryptocurrency happens at "the exact second a transaction takes place."[124] Since no track record is available when the forked coin comes into existence, the price discovery at the exact second of the hard fork is, in theory, zero.[125] The holding period begins on the date of distribution.[126] The AICPA comment letter also used the example of the Bitcoin hard fork to illustrate its recommendation.[127] In addition, both the ABA and AICPA comment letters realized that some cryptocurrency owners hold cryptocurrencies through third-party exchanges that may issue forked coins on a date after the hard fork for compatibility reasons.[128]

### *C. Foreign Practices: The Tax Treatment of Hard Forks in Japan and the United Kingdom*

In December 2017, Japan's National Tax Agency published a set of guidelines for taxing profits arising from the use or sale of virtual currency, including Bitcoin.[129] As one of the leading countries in blockchain technology and initial coin offerings,[130] Japan's legislation has attracted worldwide attention.[131]

This legislation categorizes profits from cryptocurrency transactions as "miscellaneous income," which is subject to the highest tax rate in Japan.[132] These profits include any gains arising from cryptocurrency transactions,

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122. Tax basis refers to "[t]he value assigned to a taxpayer's investment in property." *Tax Basis*, BLACK'S LAW DICTIONARY (10th ed. 2014). It usually represents the cost of acquiring the property, "including the purchase price plus commissions and other related expenses, less depreciation and other adjustments." *Id.* Tax basis is "used primarily for computing gain or loss from a transfer of the property." *Id.*

123. *See* AICPA, *supra* note 114, at 6.

124. *Id.*

125. Price discovery refers to the act of determining the price of a security, commodity, good, or service through studying factors such as supply and demand. Hard forks are subject to price discovery, which creates unique challenges in determining the dollar value of new cryptocurrencies. *See id.*

126. *See id.* at 9.

127. "[A] taxpayer makes the election that states they received Bitcoin Cash in the August 2017 split event and the currency has zero basis." *Id.* at 10; *accord* Nunn, *supra* note 17.

128. *See* ABA Section of Taxation, *supra* note 56, at 9; AICPA, *supra* note 118, at 8.

129. *See* Jon Southurst, *Japan: We'll Tax All Digital Asset Gains, Including Consumer Purchases and Forks*, BITSONLINE (Dec. 11, 2017), https://bitsonline.com/japan-tax-digital-asset-gains [http://perma.cc/9CT9-KH2N].

130. An initial coin offering is a fundraising mechanism in which new digital tokens or coins are issued. *See* Arjun Kharpal, *Tokenization: The World of ICOs*, CNBC (July 17, 2018, 5:59 AM), https://www.cnbc.com/2018/07/13/initial-coin-offering-ico-what-are-they-how-do-they-work.html [http://perma.cc/KAS7-3FDT].

131. Media from various countries have covered the cryptocurrency taxation in Japan. *See, e.g.*, Mark Emem, *Japanese Government to Simplify Cryptocurrency Taxation Process*, CCN (Oct. 20, 2018), https://www.ccn.com/japanese-government-to-simplify-cryptocurrency-taxation-process [http://perma.cc/EAT9-GLT2].

132. *See* Southurst, *supra* note 129.

mining, and forks.[133] Under Japanese law, taxpayers will only pay taxes at the sale or disposal of forked coins; no tax liability will arise if they are only holding the coins and not trading them.[134] The cost of acquisition of forked coins is deemed zero, which means the entire sale price constitutes profit.[135] The ABA comment letter follows most of these positions.[136]

In the United Kingdom, Her Majesty's Revenue and Customs (HMRC), a nonministerial department of the U.K. government responsible for tax collection, recently updated its *Capital Gains Manual* in response to the cryptocurrency boom in 2017.[137] The manual states that cryptocurrency is considered an asset subject to capital gains tax.[138] It also clarifies how to calculate gains and losses and the tax treatment of hard forks.[139]

The *Capital Gains Manual* takes a unique approach to calculate the basis of forked coins. It suggests that the acquisition cost of the new cryptocurrency depends on how the new cryptocurrency is distributed.[140] Where each holder of the original coins is given an equivalent amount of the forked coins, the Taxation of Chargeable Gains Act 1992 may apportion an appropriate amount of the acquisition cost of the original coins to the forked coins.[141] In other words, taxpayers may assign part of their acquisition cost of the original coins as the acquisition cost of the forked coins.[142] However, HMRC has provided little guidance on how to assign this basis. HMRC further noted that each cryptocurrency is unique, and a cryptocurrency's individual characteristics must be considered when applying the relevant legislation and case law.[143]

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133. *See id.*
134. *See* Kazuaki Nagata, *Cryptoprofits Are Taxable—Have You Filed?*, JAPAN TIMES (Feb. 18, 2018), https://www.japantimes.co.jp/news/2018/02/18/business/financial-markets/cryptoprofits-taxable-filed [http://perma.cc/4WV3-4RW3].
135. *See Japan and Tax on Cryptocurency—Part 3*, TYTON CAP., https://www.tytoncapital.com/investment-advice-japan/japan-and-tax-on-cryptocurency-part-3 [http://perma.cc/ZZE5-4YQ6] (last visited Apr. 10, 2019).
136. *See supra* notes 101–10 and accompanying text.
137. *See* HM REVENUE & CUSTOMS, CAPITAL GAINS MANUAL § CG12100 (2018), https://www.gov.uk/hmrc-internal-manuals/capital-gains-manual/cg12100 [http://perma.cc/P849-4C3Y].
138. *See id.*
139. *See id.*
140. *Id.*
141. *Id.* § CG15230 ("Assets may be merged or divided or may change their nature. Or rights or interests in or over assets may be created or extinguished. As a result of these changes, the value of an asset disposed of may derive from some other asset in the same ownership. In such circumstances, in determining the appropriate expenditure to be allowed as a deduction in computing the gain on the disposal, you should trace the allowable expenditure on any asset or assets from which the asset disposed of is 'derived' through the various changes. You should allow an appropriate proportion of the allowable expenditure which falls within paragraph (a) and (b) of [Taxation of Chargeable Gains Act section 38] (1).").
142. *See* Rohan Manro, *Capital Gains Manual Cryptocurrency Update*, ENTERPRISE TAX CONSULTANTS (May 1, 2018), https://www.enterprisetax.co.uk/capital-gains-manual-cryptocurrency-update [http://perma.cc/J7V3-9DWV].
143. *See id.*

## III. THE INAPPLICABILITY OF EXISTING TAX REGULATIONS TO CRYPTOCURRENCY HARD FORKS AND THE IMPRACTICABILITY OF DIRECT ADOPTION OF RECOMMENDED GUIDANCE AND FOREIGN PRACTICES

This Part examines the possibility of applying the existing tax regulations to cryptocurrency hard forks and the practicability of directly adopting the recommended guidelines and foreign practices. Part III.A dismisses the possibility of applying the existing tax treatments of stock splits, dividends, corporate spin-offs, or treasure troves to cryptocurrency hard forks. Comparisons between cryptocurrency hard forks and other events are employed to emphasize the unique characteristics of cryptocurrency hard forks. Part III.B critiques ABA and AICPA recommendations and the current practices in Japan and the United Kingdom. Although this Note argues that none of the existing resolutions or foreign practices are ideal, they are all instructive in shaping the final proposal in Part IV.

### *A. Why Hard Forks Cannot Be Taxed as Stock Splits, Dividends, Corporate Spin-Offs, or Treasure Troves*

First, the tax treatment of stock splits is not directly applicable to cryptocurrency hard forks due to the substantial differences between the two events. Despite some superficial similarities with hard forks,[144] stock splits and stock dividends that do not result in a change in the recipient's proportionate ownership create no additional value for stockholders.[145] In other words, although the number of shares increases in stock splits and stock dividends, the total dollar value of the shares remains equal to the presplit value.[146] Hard forks, on the other hand, add real value to coin holders by creating two separate blockchains and distributing new coins that have dollar value.[147] Since income tax is levied upon accretion of wealth, this fundamental difference warrants a different tax treatment.[148] Moreover, given the decentralized nature of cryptocurrencies, they do not fit neatly into the definition of "securities."[149] Extending the tax treatment of stock splits or stock dividends to cryptocurrency hard forks would likely require congressional action.[150] If Congress were to enact legislation addressing cryptocurrency hard fork taxation, they should take account of the attributes

144. *See supra* notes 83–89 and accompanying text; *see also* Webb, *supra* note 31, at 298.

145. *See, e.g.*, Taylor Buley, *Facebook Splits Its Stock 5:1*, FORBES (Oct. 5, 2010, 11:34 AM), https://www.forbes.com/sites/taylorbuley/2010/10/05/facebook-splits-stock-51 [http://perma.cc/4WK4-U5SS].

146. *See id.*

147. *See supra* Part I.A.

148. *See supra* Part I.B.

149. *See* 15 U.S.C. § 77b(a)(1) (2012). William Hinman, Director of the SEC's Division of Corporation Finance, said in a speech that the cryptocurrency Ether was not a security. *See* William Hinman, Dir., Div. of Corp. Fin., Digital Asset Transactions: When Howey Met Gary (Plastic) (June 14, 2018), https://www.sec.gov/news/speech/speech-hinman-061418 [http://perma.cc/A22W-7NN9].

150. *See* Semanski, *supra* note 91, at 12.

that distinguish hard forks from securities, stock splits, and stock dividends rather than twisting the nature of hard forks to fit them under the umbrella of stock splits or stock dividends.[151]

Second, cryptocurrency hard forks do not fit well into the existing provisions that allow nonrecognition treatment of corporate spin-offs.[152] Admittedly, a corporate spin-off may be the closest analogy to a hard fork,[153] not only because both distributions are pro rata but, more importantly, because corporate spin-offs also involve the creation of a separate entity.[154] But even this analogy is imperfect because it lacks the aspect of replication that is present in a hard fork.[155] While the new blockchain that a hard fork creates is a duplicate of the original chain and shares the same transactional history,[156] the entity that a corporate spin-off creates does not replicate the original entity.[157] Instead, it is usually a division of the original entity before the spin-off.[158] Therefore, unlike in a corporate spin-off where there is a "distributing corporation" and a "controlled corporation" immediately before the distribution,[159] only one blockchain exists before the hard fork.[160] This renders the language in § 355 inapplicable to cryptocurrency hard forks. Additionally, while § 355 specifically refers to "stock and securities,"[161] cryptocurrencies should not be considered "stock or securities" for tax purposes.[162] Therefore, the IRS is likely to view the direct application of § 355 to cryptocurrency hard forks as an aggressive tax position.[163]

Third, hard forks are too deliberate to be considered "found" by their recipients and therefore should not be taxed in the same way as treasure troves.[164] Cryptocurrency owners "know, should know, and may even anticipate" that they will acquire chain-split coins by holding cryptocurrencies.[165] Some cryptocurrency owners have even participated in

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151. *See* Hinman, *supra* note 149.

152. Miller, *supra* note 96. For arguments supporting the direct application of the tax treatment of corporate spin-offs to cryptocurrency hard forks, see Kevin Dennis, *Airdrops and Hard Forks: Tax Theory on Crypto-Currency Distributions*, LINKEDIN (Dec. 14, 2017), https://www.linkedin.com/pulse/airdrops-hard-forks-tax-theory-crpto-currency-kevin-dennis [http://perma.cc/D4Q7-VLRT].

153. *See* Dennis, *supra* note 152.

154. *See* Gregory N. Kidder, *Basics of U.S. Tax-Free Spin-Offs Under Section 355*, 5 INT'L TAX'N, Nov. 2011, at 438, 438–39, https://www.steptoe.com/images/content/2/6/v1/2630/4358.pdf [https://perma.cc/JT3E-VM35].

155. *See* Webb, *supra* note 31, at 300.

156. *See supra* note 42 and accompanying text.

157. *See* Kidder, *supra* note 154, at 438 (noting that a spin-off generally involves the creation of "a subsidiary owned by the parent").

158. *See id.*; *see also supra* notes 93–95 and accompanying text.

159. *See* 26 U.S.C. § 355(a)–(d) (2012).

160. *See supra* Part I.A.

161. *See* 26 U.S.C. § 355(a)–(d).

162. *See supra* note 149 and accompanying text; *see also* Semanski, *supra* note 91, at 12.

163. Miller, *supra* note 96.

164. *See* Webb, *supra* note 31, at 298.

165. *See When (and If) Income Is Realized from Bitcoin Chain-Splits*, DELOITTE 4 (2017), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fsi-tax-bitcoin-chain.pdf [https://perma.cc/64QX-9NMU].

the decision to hard fork. Just like treasure trove regulations should not apply to professional treasure hunters, commercial fishermen, big-game hunters, or miners,[166] treasure trove regulations should not apply to hard forks because forked coins are not accidentally found, but are deliberately created.[167] Owners of the original coins participated in the hard fork decision or even made their investment decisions because of the planned hard fork.[168] This fundamental difference between hard forks and treasure troves renders the tax treatment of treasure troves inapplicable to hard forks.[169]

### *B. Critiques of the ABA and AICPA Recommendations and Other Countries' Practices*

This Part discusses the flaws in the ABA's and AICPA's recommendations to the IRS and the inapplicability of other countries' practices to the United States. Specifically, Part III.B.1 examines their proposed time of realization and concludes that the assumption that forked coins are realized at the time of the hard fork is overbroad. Part III.B.2 critiques the proposed valuation and tax basis of forked coins and argues that the assumption that the tax basis of forked coins is zero does not apply to all cryptocurrencies. Part III.B.3 discusses the substantial revenue loss that may be caused by levying tax only at the sale of the forked coins.

#### 1. The Assumption That Forked Coins Are Realized at the Time of the Hard Fork Is Overbroad

According to the recommendations in the ABA comment letter, owners of cryptocurrencies that were subject to a hard fork in 2017 should be deemed to realize the forked coins at the time of the fork, regardless of whether the owners had instant access to the forked coins or had to wait for a third-party exchange to distribute the coins.[170]

However, this assumption is overbroad. Those who own cryptocurrencies through a third-party exchange usually have no immediate access to the forked coins at the time of the hard fork.[171] If the third-party exchange decides not to honor the new coins at the moment of the fork, no forked coin will be distributed to these investors.[172] Consequently, the assumption that

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166. *See* Andrew D. Appleby, *Ball Busters: How the IRS Should Tax Record-Setting Baseballs and Other Found Property Under the Treasure Trove Regulation*, 33 VT. L. REV. 43, 49 (2008).

167. *See supra* Part I.A.

168. *See* Patrick Thompson, *How Bitcoin Forks Influence Bitcoin Price Rise and Fall*, COINTELEGRAPH (Oct. 28, 2017), https://cointelegraph.com/news/how-bitcoin-forks-influence-bitcoin-price-rise-and-fall [http://perma.cc/PNP3-R4FR].

169. *See generally* Appleby, *supra* note 166.

170. *See supra* notes 101–10 and accompanying text.

171. *See supra* Part I.B.

172. *See* HM Revenue & Customs, *Cryptoassets for Individuals*, GOV.UK (Dec. 19, 2018), https://www.gov.uk/government/publications/tax-on-cryptoassets/cryptoassets-for-individuals [http://perma.cc/99AH-LRCH] ("If the exchange does not recognise the new cryptoasset it does not change the position for the blockchain . . . .").

all forked coins are realized at the time of the hard fork is overbroad and unfair to cryptocurrency owners who hold their coins through a third-party exchange.

For example, in February 2018, a hard fork occurred on the Litecoin blockchain that created a new digital token called Litecoin Cash.[173] Coinbase, a leading cryptocurrency exchange desk, has no plan to add Litecoin Cash to its platform at present.[174] As a result, investors who own Litecoin through Coinbase have not obtained access to Litecoin Cash yet.[175] It is possible that these investors may never be credited with Litecoin Cash if Coinbase ultimately decides not to honor this new digital token.[176] Deeming these investors as having realized the forked coins is contrary to reality.

### 2. The Assumption That the Tax Basis of Forked Coins Is Zero Is Arbitrary

According to both the ABA and AICPA comment letters, the value of forked coins at the time of the hard fork should be deemed zero, which would also be the taxpayer's basis in the forked coins.[177] Japan's current practice takes the same position.[178] However, this assumption does not take into consideration a forked coin's pre-fork status on futures markets and its market price immediately after the hard fork.[179] Therefore, such an assumption is, at best, overinclusive as it works for certain forked coins but not others.[180]

It is true that, in many cases, exchange listings do not take place for several days because third-party exchanges must upgrade their systems to make them compatible with the forked coin.[181] For example, Ethereum Classic had no readily ascertainable value at the time of the hard fork.[182] It was neither traded on futures markets nor listed on cryptocurrency exchanges soon after the hard fork.[183] However, the zero-value assumption does not work for the Bitcoin hard fork. Bitcoin Cash had been traded on futures markets for weeks prior to the hard fork.[184] Its price on these futures markets was approximately $275 at the time of the hard fork on August 1, 2017.[185] Moreover, Bitcoin

173. Nick Cawley, *Litecoin Hard Fork Produces Litecoin Cash*, NASDAQ (Feb. 19, 2018, 12:30 PM), https://www.nasdaq.com/article/litecoin-hard-fork-produces-litecoin-cash-cm923525 [https://perma.cc/45DQ-QJNA].

174. *See* Mix, *Coinbase Has No Immediate Plans to Add Litecoin Cash (LCC)*, TNW (Mar. 2, 2018), https://thenextweb.com/hardfork/2018/03/02/coinbase-litecoin-cash-trading [https://perma.cc/J4NF-3LAH].

175. *See id.*

176. *See id.*

177. *See supra* notes 114–25 and accompanying text.

178. *See supra* Part II.C.

179. *See Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.

180. *See id.*

181. *See* AICPA, *supra* note 114, at 6.

182. *See Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.

183. *See id.*

184. *See id.*

185. *Id.*

Cash began trading almost immediately on many cryptocurrency exchanges.[186] Under these circumstances, it is unreasonable to assume that the value of Bitcoin Cash was zero at the time of the hard fork.

Unlike the zero-value assumption proposed by the ABA and AICPA comment letters, the United Kingdom's *Capital Gains Manual* allows taxpayers to apportion an appropriate amount of the acquisition cost of the original coins to the new forked coins.[187] This method of calculation, at least in theory, allows for greater accuracy because it reflects the nature of the acquisition of forked coins. Forked coins may seem to be "free money" if we look at the hard fork as an isolated event.[188] However, but for the initial investment in the original coins, no forked coin will be credited to the coin holder.[189] It is therefore reasonable to assign a portion of the initial investment to the acquisition cost of the forked coins.[190] The problem is determining how much the taxpayers should apportion.[191] The British government requires that the apportionment be "appropriate," but it otherwise provides little additional guidance on this issue.[192]

### 3. Taxing at the Sale of Forked Coins May Cause Substantial Losses in Tax Revenue

Although the ABA comment letter proposes to require taxpayers to disclose the forked coins on their tax returns, it does not propose to require taxpayers to pay taxes for the forked coins unless they later sell or otherwise dispose of them.[193] This is also the Japanese taxing authority's approach.[194] However, this tax treatment essentially permits an unlimited tax deferral.[195]

The recommended guidance in the AICPA comment letter would allow taxpayers to delay reporting of hard fork events until they later dispose of the forked coins.[196] Such a tax treatment may lead to tax evasion, which can cause substantial losses in U.S. tax revenue.[197] Under this tax treatment, taxpayers could simply avoid their tax obligations by spending the forked coins in countries where cryptocurrency transactions are tax-free.[198] Since

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186. *Id.*
187. *See supra* Part II.C.
188. *See* Webb, *supra* note 31, at 298.
189. *See* Castor, *supra* note 12.
190. *See* HM REVENUE & CUSTOMS, *supra* note 137, § CG12100.
191. *See id.*
192. *Id.*
193. *See supra* Part II.C.
194. *See supra* Part II.C.
195. *See generally* Marian, *supra* note 1.
196. *See supra* notes 114–25 and accompanying text.
197. *See* Kashmir Hill, *Congress Is Nervous About This Whole Bitcoin Thing*, FORBES (Aug. 15, 2013, 6:24 PM), https://www.forbes.com/sites/kashmirhill/2013/08/15/congress-is-nervous-about-bitcoin [http://perma.cc/TYD5-X43T]; *see also* Marian, *supra* note 1, at 39.
198. *See* Kelly Phillips Erb, *Are Crypto Riches Tax-Free?*, FORBES (July 10, 2017, 10:00 AM), https://www.forbes.com/sites/kellyphillipserb/2017/07/10/are-crypto-riches-tax-free [http://perma.cc/2XRS-LXZ5].

the hard fork was not reported to the IRS up front, it is extremely difficult for such a realization event in a foreign country to be detected.[199]

For example, Germany now regards Bitcoin as the equivalent of legal tender for tax purposes when used as a means of payment.[200] This means if taxpayers use 0.1 unit of Bitcoin to buy lunch in Germany, they will not be taxed for the sale or exchange of that 0.1 unit.[201] Since taxpayers have not reported the hard fork event on their tax returns, they can easily avoid their tax obligations by spending the forked coins in cryptocurrency tax-haven countries like Germany without worrying about IRS detection.[202] Given the increasing transaction volume of cryptocurrencies, the potential loss of tax revenue under this tax treatment will be considerable and should not be overlooked.[203] In fact, Congress has already expressed its concerns about the potential tax evasion problems that cryptocurrencies cause.[204]

Admittedly, the recommended guidance in the AICPA comment letter attempts to provide incentives for taxpayers to report the hard fork and pay taxes upfront.[205] The letter suggested that, for taxpayers who choose to report the hard fork within thirty days by making an "Election to Include a Virtual Currency Event as Ordinary Income in Year of Transfer,"[206] future disposition of the asset will generate a capital gain or loss that is subject to a lower tax rate if the taxpayer holds the forked coins for more than one year.[207] Otherwise, the hard fork should be reported as ordinary income when taxpayers later dispose of the forked coins.[208]

However, treating profits made from hard forks as ordinary income is inconsistent with the nature of cryptocurrency hard forks. Since cryptocurrency owners hold the original coins for personal or investment purposes, the original coins should be considered capital assets.[209] The sale or exchange of capital assets should generate capital gains or losses.[210] Although hard forks do not involve the sale of original coins, profits made from hard forks are similar in nature to those made from the sale of original coins as both profits are derived from the ownership of the original coins.[211]

199. *See id.*
200. *See* Marian, *supra* note 1, at 39.
201. *See* Nikhilesh De, *Germany Won't Tax You for Buying Coffee with Bitcoin*, COINDESK (Mar. 1, 2018), https://www.coindesk.com/germany-considers-crypto-legal-equivalent-to-fiat-for-tax-purposes [http://perma.cc/69HG-5GXU].
202. *See id.*
203. *See generally* Jeff J. Roberts, *Only 802 People Told the IRS About Bitcoin—Lawsuit*, FORTUNE (Mar. 19, 2017), http://fortune.com/2017/03/19/irs-bitcoin-lawsuit [http://perma.cc/P23S-GVEE].
204. *See* Hill, *supra* note 197.
205. *See generally* AICPA, *supra* note 114.
206. *See id.* at 10.
207. *See also infra* Part IV.B.3.
208. *See* AICPA, *supra* note 114, at 10.
209. *See Topic No. 409—Capital Gains and Losses*, IRS, http://www.irs.gov/taxtopics/tc409 [http://perma.cc/YY5K-DAAL] (last visited Apr. 10, 2019).
210. *See id.*
211. *See* Castor, *supra* note 12.

As demonstrated, existing tax regulations are not directly applicable to cryptocurrency hard forks; neither are the ABA and AICPA proposals or foreign practices. It is therefore necessary to explore a specific tax treatment for cryptocurrency hard forks.

## IV. PROPOSAL: THE TAX TREATMENT FOR CRYPTOCURRENCY HARD FORKS IN THE UNITED STATES

This Part proposes a detailed tax treatment for cryptocurrency hard forks in the United States. Part IV.A proposes a two-pronged tax for cryptocurrency hard forks and explains how this tax treatment can help relieve both cryptocurrency tax deferral and tax evasion problems. It also addresses the potential liquidity concern that taxpayers may not have enough cash to pay tax before they sell the forked coins. Part IV.B explains the other essential elements of the proposed tax treatment, including the tax basis, valuation, tax rate, and applicable holding period of the forked coins. Finally, Part IV.C illustrates the proposed tax treatment through an example.

### *A. When Should the Tax Be Imposed?*

This Note proposes a two-pronged tax for cryptocurrency hard forks. A first tax should be imposed on the profit made from the hard fork event at the time when forked coins are credited to investors' accounts or otherwise made available to them in a way that actual possession and control are undisputed. A second tax should be imposed on the profit derived from the disposition of forked coins at the time when taxpayers sell or otherwise dispose of the forked coins. There is no double taxation issue[212] because the calculation of basis is different for the two taxes.[213]

This tax treatment prevents taxpayers from unlimitedly deferring their tax obligations and partially addresses the tax evasion problem.[214] Since taxpayers must report and pay taxes when forked coins are actually distributed to their accounts, no tax deferral or evasion is possible for the portion of profit made directly from the hard fork event itself. As for the other portion—the profit made from the sale of forked coins—since taxpayers have reported hard fork events upfront, the IRS will have the ability to investigate and detect unreported realization events related to the reported forked coins.

Another possible solution, which is the current practice in Japan, is to ignore the initial accession to wealth at the time of the hard fork and only tax the forked coins at their sale.[215] This solution avoids the difficulties in valuation because the ultimate sales price, which is readily available from the

212. Double taxation refers to an "imposition of two taxes on the same property during the same period and for the same taxing purpose." *Double Taxation*, BLACK'S LAW DICTIONARY (10th ed. 2014).

213. *See supra* Part II.B.

214. *See supra* Part II.B.

215. *See supra* Part II.C.

transactional record, can be used directly as the valuation of forked coins.[216] This solution also avoids liquidity concerns because taxpayers would have a cash inflow to pay taxes at the time they sell the forked coins.[217]

However, the convenience brought by this solution should not take priority over well-established tax principles in the United States.[218] Substantial case law supports realizing gains even in the face of complete illiquidity and difficulties in valuation.[219] For example, treasure troves, prizes, awards, and similar forms of income may trigger immediate realizations, and taxpayers do not always have the luxury of waiting until a sale.[220] Difficulty of valuation and nonliquidity are "convenience" factors that are matters of degree, which are not present in many found-property cases.[221] Consequently, "[m]ere nonliquidity, difficulty of valuation, or a possibility of forfeiture should not be a bar to current realization."[222]

Opponents argue that ignoring liquidity problems is essentially forcing investors to sell their property to pay taxes.[223] This argument is weak in the case of a hard fork because cryptocurrency investors usually have advance notice of hard fork events.[224] Some may even have participated in the hard fork decisions themselves.[225] Therefore, investors who intend to hold on to the forked coins should be able to prepare in advance to fulfill the tax obligations triggered by the hard fork event. This is the rationale behind imposing tax consequences on a significant modification of debt.[226] A modification of a debt instrument may result in a cognizable taxable exchange of the old debt instrument for a new debt instrument.[227] Even without a direct cash inflow, such debt modification is deemed taxable partly because taxpayers have advance notice of or have actively sought such modification.[228] Taking into account the advance notice that coin holders have, the mere fact that some coin holders may have to sell assets to satisfy their tax obligations should not preclude adopting a requirement that they pay tax on the profit made from the hard fork event itself.

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216. *See* Appleby, *supra* note 166, at 48–49.

217. *See id.*

218. *See id.* at 49.

219. *See, e.g.*, United States v. Drescher, 179 F.2d 863, 865 (2d Cir. 1950); Ward v. Comm'r, 159 F.2d 502, 504–05 (2d Cir. 1947); Sproull v. Comm'r, 16 T.C. 244, 247–48 (1951).

220. Webb, *supra* note 31, at 304.

221. See Joseph M. Dodge, *Accessions to Wealth, Realization of Gross Income, and Dominion and Control: Applying the "Claim of Right Doctrine" to Found Objects, Including Record-Setting Baseballs*, 4 FLA. TAX REV. 685, 691 (2000).

222. *Id.* at 688.

223. *See generally* David J. Shakow, *Taxation Without Realization: A Proposal for Accrual Taxation*, 134 U. PA. L. REV. 1111 (1986).

224. *See supra* note 165 and accompanying text.

225. *See id.*

226. *See generally* Howard Ro, *A Road Map of Tax Consequences of Modifying Debt*, TAX ADVISER (June 1, 2012), https://www.thetaxadviser.com/issues/2012/jun/ro-jun2012.html [http://perma.cc/7WGB-LGQP].

227. *See* Treas. Reg. § 1.1001–3 (2018).

228. *See* Ro, *supra* note 226.

From a policy perspective, the government has an incentive to encourage investment in capital markets to stimulate economic growth through pooling domestic savings to mobilize capital for productive projects.[229] Forcing taxpayers to sell their stocks to satisfy their tax obligations is therefore not a sound policy.[230] Similar incentives might not exist for cryptocurrency investments. Whether cryptocurrency investments will impact the real economy positively or negatively is still unclear.[231] Consequently, the government may be less reluctant to force taxpayers to sell forked coins to pay taxes.

### *B. Tax Basis, Valuation, Tax Rate, and Holding Period*

This section explains other essential elements of the proposed tax treatment, including the tax basis, valuation, tax rate, and applicable holding period of the forked coins.[232] This Note addresses practical concerns, such as the inefficiency of the cryptocurrency market, the indirect possession of forked coins through third-party exchanges, and the fluctuating trading prices of forked coins, in its concrete proposal.

#### 1. Tax Basis

This Note suggests that, when determining basis, the IRS should borrow from the practice in the United Kingdom, which allows investors to assign part of the cost of acquisition of the original coins to the basis of the forked coins. To provide more clarity and certainty for taxpayers, the IRS should further prescribe a recommended formula for such apportionment. For example, the recommended formula could prescribe that the apportionment should be made according to the relative value of the original coins to the forked coins. In other words, the apportionment should be calculated by dividing the value of forked coins by the total value of forked coins and the original coins. To illustrate, if the original coin is worth $1000 and the forked coin is worth $500, taxpayers may apportion one-third of the acquisition cost of the original coin to the basis of the forked coin.[233]

Allowing apportionment of basis not only better reflects the nature of the acquisition of forked coins,[234] but it also partially relieves the liquidity

229. *See* Dunama S. Balami, *The Role of the Capital Market in the Economy*, PROSHARE (Aug. 13, 2015, 8:13 PM), https://www.proshareng.com/news/Capital-Market/The-Role-of-the-Capital-Market-in-the-Economy/28259 [http://perma.cc/2WRC-WKX9].

230. *See id.*

231. *See* Conor Sen, *Cryptocurrencies Are Starting to Affect the Real Economy: Be Afraid*, BLOOMBERG (Dec. 18, 2017, 1:37 PM), http://www.bloomberg.com/opinion/articles/2017-12-18/cryptocurrencies-are-starting-to-affect-the-real-economy [http://perma.cc/E5DN-UAX7].

232. *See supra* Part II.C.

233. The calculation is as follows:

$$\frac{\$500}{\$500 + \$1000} = \frac{1}{3}$$

234. *See supra* Part II.B.

234. *See supra* Part II.B.

concern as taxpayers' tax obligations are lowered after the apportionment.[235] Of course, the tax obligation upon sale of the original coins will increase as the basis assigned to the original coins is reduced. But since taxpayers only pay taxes on profit made from the original coins at the disposition of such coins, taxpayers should have sufficient cash inflow to pay taxes.

### 2. Valuation

Valuation is not a problem for the second tax since the ultimate sales price will be readily available to determine profits.[236] Therefore, this section only focuses on the valuation of forked coins for the purposes of the first tax.

Valuation of forked coins may vary from taxpayer to taxpayer for the first tax, depending on the third-party exchanges she uses and the time of actual distribution of forked coins to her accounts.[237] To fairly determine the valuation of forked coins, two main issues must be clarified.

First, the trading price of a cryptocurrency can be different on each third-party exchange due to the different supply and demand for that cryptocurrency on various exchanges.[238] Since cryptocurrency exchanges are not connected, moving coins across exchanges can be inefficient and requires substantial collateral.[239] This makes arbitrage more difficult for traders and thus allows price differences to persist for longer than they would in a more efficient market.[240]

Second, theoretically speaking, the price of forked coins on the date of the actual distribution should be used for valuation.[241] However, the fluctuating prices of cryptocurrencies are unfair to investors who received the forked coins on a day when the coins were traded at an abnormally high price. For example, on August 2, 2017, the price of Bitcoin Cash was $473.03, yet it dropped to $267.76 two days later.[242] Assuming the same tax rate and basis, taxpayers who received the forked coins on August 2, only two days earlier, must pay taxes on the extra $205.27 profit, which represents almost twice the tax responsibility than that of taxpayers who received their coins on August 4. In this case, the investors who received the forked coins two days earlier are unfairly taxed because they may not have a real opportunity to sell the forked coins due to the limited demand for those coins on third-party exchanges immediately after the hard fork.[243]

235. *See supra* Part IV.A.

236. *See* AICPA, *supra* note 114, at 6.

237. *See supra* Part I.B.

238. *See* Kira Egorova, *Crypto Exchanges, Explained*, COINTELEGRAPH (July 10, 2018), https://cointelegraph.com/explained/crypto-exchanges-explained [http://perma.cc/K6UW-KCP8].

239. *See* Bob Pisani & Todd Haselton, *Here's Why Bitcoin Prices Are Different on Each Exchange*, CNBC (Dec. 12, 2017, 5:12 PM), https://www.cnbc.com/2017/12/12/why-bitcoin-prices-are-different-on-each-exchange.html [http://perma.cc/XG2A-B8TX].

240. *See id.*

241. *See* ABA Section of Taxation, *supra* note 56, at 8.

242. *Bitcoin Cash (BCH)*, COINMARKETCAP, http://coinmarketcap.com/currencies/bitcoin-cash [http://perma.cc/LH3R-NCX9] (last visited Apr. 10, 2019).

243. *See* Semanski, *supra* note 91, at 11.

Taking these two factors into consideration, this Note suggests that, for investors who hold cryptocurrency through a third-party exchange, the IRS should use the forked coin's thirty-day average trading price on the specific exchange the investor uses to value the forked coins. The thirty-day period should start from the date of actual distribution of forked coins, or the date when the forked coins were listed, whichever is later. As for investors who hold cryptocurrencies in their own digital wallets, the IRS may use the forked coin's thirty-day average trading price on a few designated major cryptocurrency exchanges in the United States instead. Since these investors have access to the forked coins immediately after the hard fork, the thirty-day period starts on the date when the forked coins were listed on major cryptocurrency exchanges. In the event that the cryptocurrency owner sells the forked coins within thirty days, the sales price is readily available to be used as the valuation of the forked coins.[244]

Using the thirty-day average trading price as valuation not only avoids the unfairness created by the fluctuating price, but it also avoids the practical concern that some forked coins may not be immediately listed after the hard fork.[245] The different valuation methods for investors who hold forked coins through third-party exchanges and those who hold forked coins in their own digital wallets further allow the IRS to consider taxpayers' different times of realization and the different trading prices on various exchanges.[246] This Note acknowledges that, should the cryptocurrency market become more efficient in the future, it may no longer be necessary to use the thirty-day average trading price to value a certain cryptocurrency. In an efficient market, prices of a certain cryptocurrency should be the same on all exchanges.[247]

### 3. Tax Rate and Holding Period

Taxpayers who hold cryptocurrencies as capital assets realize a capital gain or loss on the sale or exchange of cryptocurrencies.[248] For these taxpayers, both the receipt of forked coins through a hard fork and the sale of such coins thereafter give rise to capital gain or loss and are subject to the capital gains tax rate.[249]

Generally, taxpayers who hold the asset for more than one year before disposal are subject to the long-term capital gain tax, and those who hold the asset for one year or less are subject to the short-term capital gain tax.[250]

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244. *See supra* Part I.B.

245. For example, Ethereum Classic was not listed on cryptocurrency exchanges soon after the hard fork. *See Is the Bitcoin Hard Fork Taxable?*, *supra* note 48.

246. *See supra* note 239 and accompanying text.

247. *See generally* William O. Fisher, *Does the Efficient Market Theory Help Us Do Justice in a Time of Madness?*, 54 EMORY L.J. 843, 850 (2005).

248. *See* I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

249. *See* INTERNAL REVENUE SERV., *supra* note 23, at 20.

250. Exceptions to this rule include property acquired by gift, property acquired from a decedent, or patent property. *See id.*; *see also Topic No. 409—Capital Gains and Losses*, *supra* note 209.

Investors who hold forked coins for longer than a year can benefit from a reduced tax rate on their profits.[251] For 2018, the long-term capital gains tax rates are 0, 15, or 20 percent for most taxpayers.[252] Short-term capital gains, however, are taxed at the same rate as ordinary income.[253]

Whether a taxpayer has held the cryptocurrency for more than one year depends on the calculation of the holding period.[254] This Note suggests that, for the purposes of the first tax, the holding period should depend on how long the taxpayer has held the original coins; during the second tax, the holding period should depend on how long the taxpayer has held the forked coins.

This calculation of the holding period more closely reflects the nature of capital gains or losses.[255] But for investors' holding of the original coins, no forked coins will be credited to investors at the time of the hard fork.[256] Assuming the thirty-day average trading price of Bitcoin Cash on Coinbase was $2551.49,[257] the holding period of the original coins, rather than the new coins, should be used to calculate the first tax. The underlying rationale is the same as allowing assignment of initial investment to the acquisition cost of the forked coins.[258] Since the second tax is imposed on the profit made from holding and selling the forked coins, which became independent tokens after the hard fork, an investor's position in the original coins becomes irrelevant when calculating the holding period for the purpose of the second tax.[259] Thus, the holding period of the forked coins should be used instead.

If the price of forked coins drops and generates capital losses that exceed capital gains, the excess can be deducted and used to reduce other income, such as wages, up to an annual limit of $3000.[260] If the total net capital loss is more than the yearly limit on capital loss deductions, taxpayers can carry over the unused part to the next year and treat it as if they incurred it in that next year to reduce their tax obligation.[261]

### *C. An Illustration: Diane's Bitcoin Cash*

Diane bought ten units of Bitcoin on Coinbase on December 19, 2015. After the Bitcoin hard fork on August 1, 2017, Coinbase finally decided to

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251. *See Topic No. 409—Capital Gains and Losses*, *supra* note 209.
252. *See id.*
253. *See id.*
254. *See* INTERNAL REVENUE SERV., *supra* note 23, at 35.
255. *See supra* Part I.A.
256. *See supra* Part I.A.
257. *See supra* Part I.A.
258. *See supra* Part IV.B.1.
259. *See supra* Part IV.A.
260. *Ten Important Facts About Capital Gains and Losses*, IRS, https://www.irs.gov/newsroom/ten-important-facts-about-capital-gains-and-losses [http://perma.cc/T764-R3JP] (last visited Apr. 10, 2019).
261. *See id.*

add Bitcoin Cash to its platform on December 19, 2017,[262] and credited Diane's account with ten units of Bitcoin Cash.

The price of Bitcoin was $461.35 on December 19, 2015.[263] On August 1, 2017, the price of Bitcoin Cash on other exchanges was $310.26.[264] On December 19, 2017, when ten units of Bitcoin Cash were finally credited to Diane's account, the price of Bitcoin Cash on Coinbase was $3501.48.[265] The price of Bitcoin was $17,599.00 on Coinbase that day.[266] Diane held the ten units of Bitcoin Cash on Coinbase for another six months and eventually sold them on June 19, 2018, for $881.19 each.[267]

According to the proposal, Diane's first tax liability incurred on December 19, 2017, when ten units of Bitcoin Cash were credited to her account.[268] Assuming the thirty-day average trading price of Bitcoin Cash on Coinbase was $2551.49,[269] the total value of Diane's Bitcoin Cash was $25,514.90[270] and the total value of her Bitcoin was $175,990.00,[271] Diane should assign $584.17 of the acquisition cost of Bitcoin to the basis of Bitcoin Cash.[272] The calculation is as follows:

$$\begin{aligned}\text{Acquisition Cost of Bitcoin} &= \$461.35 \times 10\\ &= \mathbf{\$4613.50}\\ \text{Total Value of Bitcoin} &= \mathbf{\$175{,}990.00}\\ \text{Total Value of Bitcoin Cash} &= \mathbf{\$25{,}514.90}\\ \text{Tax Basis for Bitcoin Cash} &= \text{Acquisition Cost Assigned to Bitcoin Cash}\\ &= \$4613.50 \times \frac{\$25{,}514.90}{\$25{,}514.90 + \$175{,}990.00}\\ &= \mathbf{\$584.17}.\end{aligned}$$

262. *Bitcoin Cash FAQ*, COINBASE, https://support.coinbase.com/customer/en/portal/articles/2911542-bitcoin-cash-faq [https://perma.cc/TK6U-BY4W] (last visited Apr. 10, 2019).

263. *Bitcoin (Coinbase)*, FIN. CONTENT, https://markets.financialcontent.com/stocks/quote/historical?Symbol=997%3A1900280003&Year=2015&Range=3&Month=12 [https://perma.cc/HJ74-MKUQ] (last visited on Apr. 10, 2019).

264. *Bitcoin Cash (BCH)*, *supra* note 242.

265. *Bitcoin Cash Price (BCH)*, *supra* note 13.

266. *Bitcoin Price (BTC)*, COINBASE, https://www.coinbase.com/price/bitcoin [https://perma.cc/4P5Y-Q8WD] (last visited Apr. 10, 2019).

267. *Bitcoin Cash Price (BCH)*, *supra* note 13.

268. The first tax liability is incurred at the time when forked coins are credited to investors' accounts. *See supra* Part IV.A.

269. The thirty-day average trading price of the forked coins on the cryptocurrency exchange the investor uses should be used as the valuation of the forked coins. *See supra* Part IV.B.2.

270. Total Value of Bitcoin Cash = $2551.49 × 10 = $25,514.90.

271. Total Value of Bitcoin = $17,599.00 × 10 = $175,990.00.

272. The apportionment is made according to the relative value of the original coins and the forked coins. *See supra* Part IV.B.1.

Because Diane has held Bitcoin since December 19, 2015, which should be the starting point of her holding period,[273] her capital gains should be classified as long-term.[274] Assuming Diane's ordinary income tax bracket was 25 percent, her long-term capital gains rate should be 15 percent.[275] Assuming the thirty-day average trading price of Bitcoin Cash on Coinbase was $2551.49,[276] Diane's first tax obligation is $3739.61.

$$\begin{aligned}\text{Diane's First Tax Obligation} &= [(\$2551.49 \times 10) - \$584.17] \times 0.15 \\ &= \mathbf{\$3739.61}.\end{aligned}$$

Diane's second tax obligation was incurred on June 19, 2018, when she sold all ten units of Bitcoin Cash at $881.19 each.[277] Since the tax basis is now $2551.49,[278] she had a capital loss of $16,703.00. The calculation is as follows:

$$\begin{aligned}\text{Capital Gain} &= (\$881.19 - \$2551.49) \times 10 \\ &= \mathbf{-\$16{,}703.00}.\end{aligned}$$

Such capital losses can be deducted on Diane's 2018 tax return and used to reduce other income up to an annual limit of $3000.00 (assuming Diane is single).[279] Since the total net capital loss is more than $3000.00, she can carry over the unused part to the next year and treat it as if she incurred it in that year.[280]

Hypothetically, if the sales price of Bitcoin Cash was $3000.00, Diane would have realized $4485.10 of capital gains. The calculation is as follows:

$$\begin{aligned}\text{Capital Gain} &= (\$3000.00 - \$2551.49) \times 10 \\ &= \mathbf{\$4485.10}.\end{aligned}$$

Since Diane has only held Bitcoin Cash for six months, her capital gains should be classified as short-term.[281] Assuming Diane's ordinary income tax bracket was 25 percent, her short-term capital gain or loss rate should also be

273. For the imposition of the first tax, the holding period should depend on how long the taxpayer has held the original coins. *See supra* Part IV.B.3.

274. Generally, taxpayers who hold capital assets for more than one year before disposal are subject to long-term capital gain or loss taxation. *See supra* Part IV.B.3.

275. Investors who hold forked coins for longer than a year can benefit from a reduced tax rate on their profits. *See supra* Part IV.B.3.

276. The thirty-day average trading price of the forked coins on the cryptocurrency exchange the investor uses should be used as the valuation of the forked coins. *See supra* Part IV.B.2.

277. A second tax should be imposed on the profit derived from the disposition of forked coins at the time a taxpayer sells or otherwise disposes of the forked coins. *See supra* Part IV.A.

278. The thirty-day average trading price used in calculating the first tax becomes the basis for the imposition of the second tax. *See supra* Part IV.B.1.

279. *See supra* Part IV.B.3.

280. *See supra* Part IV.B.3.

281. Generally, taxpayers who hold capital assets for one year or less are subject to short-term capital gain or loss taxation. *See supra* Part IV.B.3.

25 percent.[282] Therefore, she would have incurred a tax obligation of \$1121.28. The calculation is as follows:

$$\text{Diane's Second Tax Obligation} = \$4485.10 \times 0.25$$
$$= \mathbf{\$1121.28}.$$

## CONCLUSION

Given the high frequency of cryptocurrency hard forks and the large amount of taxable income involved, taxpayers who hold forked coins are calling for clear guidance from the IRS. Despite the increasing regulatory efforts concerning cryptocurrency, cryptocurrency hard fork taxation is yet to be emphasized. To fill this regulatory gap, this Note proposes a detailed tax treatment for cryptocurrency hard forks. It suggests that practical issues, such as the varying distribution times of forked coins and the market inefficiency of cryptocurrency exchanges, should be considered when determining the valuation of forked coins. It also makes a concrete proposal on the timing of taxation, tax basis, and the holding period. In coming to this proposal, this Note examines various traditional tax law doctrines and refers to foreign practices on cryptocurrency hard fork taxation. By imposing a two-pronged tax on cryptocurrency hard forks, this proposal is not only closer to the nature of hard forks, but also partially addresses the potential tax deferral and evasion problems that are present in existing recommendations.

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282. Short-term capital gains are taxed at the same rate as ordinary income. *See supra* Part IV.B.3.