

CRYPTO ASSETS AND THE PROBLEM OF TAX CLASSIFICATIONS

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ABSTRACT

To date, Internal Revenue Service (I.R.S.) guidance on cryptocurrencies has been thin. When the I.R.S. has issued guidance, it occasionally mishandles the technical details (such as confusing air drops and hard forks). More personnel (and personnel with greater technical expertise) would allow the I.R.S. to keep pace with the explosive growth of cryptocurrency. Nevertheless, the I.R.S. could better leverage its existing resources by focusing on select issues and seeking enabling legislation from Congress. Specifically, the I.R.S. should focus on crypto issues occurring on a system-wide basis and not requiring taxpayer-specific considerations.

For example, determining whether Bitcoin is a “security” under various provisions of the Internal Revenue Code (“Code”) does not require the I.R.S. to examine specific taxpayers. It must, though, examine Bitcoin itself and the provisions using the term. Under current law, Bitcoin would not be a security under most of these provisions. The purposes of these provisions is to apply special treatment to fungible and liquid investments like stock, and they should apply to Bitcoin. Thus, Congress should enable the I.R.S. to make such classifications, even if the current language of the Code does not permit them.

The classification power should be flexible, allowing for carveouts and exceptions for provisions of the Code and cryptocurrencies. Some provisions using the word securities should not apply to cryptocurrency because they exist to promote specific activities (e.g., retirement savings). Some cryptocurrencies should not be considered securities at all. In particular, thinly traded assets and nonfungible tokens (NFTs) should not qualify because they do not function like securities. Over time, classifications may need to change as new, thinly traded securities become widely adopted. Similarly, stablecoins—cryptocurrencies pegged to the dollar—should be considered securities today. With different usage or non-tax regulation, they may evolve into money under the Code.

Classifications can also be comparative (rather than categorical). Are Bitcoin and Wrapped Bitcoin (an Ethereum token pegged to the value of Bitcoin) so different that their exchange is a realization event, triggering

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taxation? Such questions also operate on a system-wide basis and can be answered for all taxpayers. In all likelihood, these exchanges are taxable, but they should not be as a normative matter. A broad grant of authority from Congress would allow the I.R.S. to make the correct classifications and tax cryptocurrency the right way.

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INTRODUCTION

In 2014, the Internal Revenue Service (IRS) issued its first published guidance on cryptocurrencies.¹ The IRS was not the first regulator to take note of cryptocurrencies,² but it took a seemingly early start. Importantly, the IRS declared cryptocurrencies to be “property” and not “currency” for federal tax purposes.³ Perhaps more importantly, the regulatory attention seemed to legitimize Bitcoin,⁴ which suffered from an early taint with illegal activity such as the Silk Road black market.⁵

Over the intervening eight years, the IRS has lagged behind other crypto regulators, issuing a scant body of guidance. Much of its efforts have

1. See I.R.S. Notice 2014-21, 2014-16 I.R.B. 938 (Apr. 14, 2014) [hereinafter Notice 2014-21].

2. See FIN. CRIMES ENF’T NETWORK, FIN-2013-G001, APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES (Mar. 18, 2013) [hereinafter FINCEN 2013 GUIDANCE], <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf> [<https://perma.cc/M2MV-SVL9>] (applying money-service-business regulations to administrators and exchangers of convertible virtual currency).

3. Because cryptocurrencies are property, any gain realized will be subject to taxation, and losses realized will be potentially deductible. See generally BORIS I. BITTKER & LAWRENCE LOKKEN, FEDERAL TAXATION OF INCOME, ESTATES AND GIFTS ¶ 40.1 (2021) (providing overview of the taxing of gains and losses from dealings in property). Currency, in contrast, is subject to highly specialized rules that turn on whether the taxpayer uses the currency in business operations. See *id.* (describing taxation of foreign currency).

4. See John D. McKinnon & Ryan Tracy, *IRS Says Bitcoin Is Property, Not Currency*, WALL ST. J. (Mar. 25, 2014, 4:30 PM), <https://www.wsj.com/articles/SB10001424052702303949704579461502538024502> [<https://perma.cc/EM8U-M3FX>].

5. Cf. generally Angela Walch, *Blockchain’s Treacherous Vocabulary: One More Challenge for Regulators*, 21 J. INTERNET L. 1, 11 (2017) (referring to a “Bitcoin taint” from its early association with Silk Road).

reminded recalcitrant taxpayers that they do indeed need to pay tax on their crypto gains.⁶ The IRS has devoted less attention to answering more sophisticated questions, and when the IRS has spoken to those questions, its answers have often baffled observers.⁷

For the most part, however, the IRS has simply not spoken to the important issues. While its early classification of cryptocurrency as property answers many questions,⁸ others remain. Various provisions of the Internal Revenue Code (“Code”), for example, apply special treatment to “securities.” The wash-sale rules of section 1091(a) are such a provision, denying a deduction to taxpayers who sell securities at a loss and replace them within a thirty-day period.⁹ Cryptocurrencies are arguably (but probably not) securities under the wash-sale rules, but the IRS has not offered any guidance on the question.¹⁰

Wash sales and other open issues of today seem multidimensional and daunting in comparison to the situation in 2014. Back then, the IRS could content itself and a handful of enthusiasts by answering a few questions about a quirky new asset called Bitcoin. From 2014 to 2022, cryptocurrencies and related assets (“crypto assets”)¹¹ have skyrocketed both in number and in value.¹² Though many projects share similar traits, many are so different that they should have different tax treatments. Perhaps stymied by this complexity, the IRS has issued no regulations and little guidance on fundamental issues surrounding how to tax crypto assets.

Since the first law review article about Bitcoin was published in 2012,¹³ there has been a steadily growing body of legal scholarship about it and other crypto assets.¹⁴ Much of the tax scholarship has focused on novel

6. See *infra* note 89 and accompanying text.

7. See *infra* notes 104–07 and accompanying text (discussing the IRS’s guidance on taxing hard forks).

8. For example, gain and loss on dealings in cryptocurrencies would be taxed as capital gains and losses. See Notice 2014-21, *supra* note 1, at 939, Q&A 7.

9. I.R.C. § 1091(a). Unless noted otherwise, all references in this Article to “section” refer to the Internal Revenue Code, as amended.

10. See *infra* Section III.B.2.

11. See *infra* Section I.A (describing use of term “crypto assets” in this Article).

12. See Lyle Daly, *How Many Cryptocurrencies Are There?*, MOTLEY FOOL (June 27, 2022, 9:39 PM), <https://www.fool.com/investing/stock-market/market-sectors/financials/cryptocurrency-stocks/how-many-cryptocurrencies-are-there/> [<https://perma.cc/9KXH-5PP4>].

13. The first law review article discussing Bitcoin is Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCI. & TECH. L.J. 159 (2012). See Shawn Bayern, *Dynamic Common Law and Technological Change: The Classification of Bitcoin*, 71 WASH. & LEE L. REV. ONLINE 22, 23 n.1 (2014).

14. See, e.g., Eric D. Chason, *How Bitcoin Functions as Property Law*, 49 SETON HALL L. REV. 129, 134 n.21 (2018) (citing prior scholarship).

problems like the taxation of hard forks¹⁵ and enforcement.¹⁶ Others have revisited the seminal issue of foreign-currency status¹⁷ or have proposed more fundamental tax reforms to accommodate newly emerging crypto assets.¹⁸

This Article examines the interpretive issues of applying old categories in the Code to the new crypto assets.¹⁹ Returning to the “securities” category, some authorities point to traditional categories like stocks and bonds.²⁰ Clearly, Bitcoin is neither stock nor bond, and it probably falls outside of the wash-sale rules as currently interpreted. In terms of purpose, the wash-sale rules seemingly use the term as a proxy for liquid, fungible investments. Bitcoin is liquid and fungible, and the wash-sale rules should apply as a normative matter.

Applying categories (securities, commodities, money, etc.) to crypto assets (Bitcoin, stablecoins, etc.) requires us to understand the text and purpose of the statute along with the nature of individual crypto assets. This Article analyzes key provisions of the Code, the categories they use, and how they apply to prominent crypto assets. After finishing this work, it

15. See David G. Chamberlain, *Forking Belief in Cryptocurrency: A Tax Non-Realization Event*, 24 FLA. TAX REV. 651 (2021); Eric D. Chason, *Cryptocurrency Hard Forks and Revenue Ruling 2019-24*, 39 VA. TAX REV. 279 (2019) [hereinafter Chason, *Hard Forks*]; Eric D. Chason, *A Tax on the Clones: The Strange Case of Bitcoin Cash*, 39 VA. TAX REV. 1 (2019) [hereinafter Chason, *Bitcoin Cash*].

16. See Arvind Sabu, *Reframing Bitcoin and Tax Compliance*, 64 ST. LOUIS U. L.J. 181, 184 (2020) (“This Article is the first to argue that, contrary to common wisdom, Bitcoin is increasingly regulable by tax authorities.”); Jason Clark & Margaret Ryznar, *Improving Bitcoin Tax Compliance*, 2019 U. ILL. L. REV. ONLINE 70, 75 (2019) (“By providing better guidance that supports the legitimate purpose of virtual currencies, the IRS can empower users to take advantage of the benefits that virtual currencies offer.”).

17. See Adam Chodorow, *Bitcoin and the Definition of Foreign Currency*, 19 FLA. TAX REV. 365 (2016).

18. See Diedre A. Liedel, *The Taxation of Bitcoin: How the IRS Views Cryptocurrencies*, 66 DRAKE L. REV. 107, 145 (2018) (“The IRS has taken the position that cryptocurrencies should be considered property. That position is contradictory to the view of several other federal stakeholders, including courts and regulatory agencies.”); Roland Weekley, *The Problematic Tax Treatment of Cryptocurrencies*, 17 FLA. ST. U. BUS. REV. 109, 111 (2018) (“[T]he Service could tax only virtual currencies when a taxpayer converts the virtual currency to fiat currency for ease of administration, similar to frequent flier miles.”); Arild B. Doerge, *Tax Policy for the Wider Cryptoverse*, 21 TRANSACTIONS: TN. J. BUS. L. 39, 40–41 (2019) (“This article argues that a more optimal tax policy to accomplish these goals should (1) abandon the current simple property classification, (2) adopt a non-recognition policy for gains realized on in-kind transactions of cryptoassets, and (3) adopt a *de minimis* exemption for gains from the use of cryptoassets as a medium of exchange in the manner of currency.”); Adam Chodorow, *Rethinking Basis in the Age of Virtual Currencies*, 36 VA. TAX REV. 371, 375 (2017) (“[T]he Service should require taxpayers to pool the basis of their virtual currencies, which would force them to report a proportional amount of gain or loss when they dispose of such currency.”).

19. For a theoretical treatment of issues that arise in categorizing behaviors and property, see Lee Anne Fennell, *Sizing Up Categories*, 22 THEORETICAL INQUIRIES L. 1, 2 (2021); Adam J. Kolber, *Line Drawing in the Dark*, 22 THEORETICAL INQUIRIES L. 111, 112 (2021); Edward Fox & Jacob Goldin, *Sharp Lines and Sliding Scales in Tax Law*, 73 TAX L. REV. 237, 237 (2020).

20. See *infra* Section III.E.

concludes that most crypto assets should be classified as securities under the Code. Current law, however, often excludes crypto assets from the securities category because they are not corporate debt or equity.²¹

To facilitate the correct taxation of crypto assets, Congress should empower the IRS to classify them under various provisions of the Code. With this power, the IRS could classify crypto assets on a system-wide basis. Whether Bitcoin is a security or commodity does not ordinarily turn on taxpayer-specific facts like intention. If Bitcoin is a security in Alice's hands, it should be a security in Bob's. Ideally, the IRS would make these determinations by referencing specific crypto assets and specific Code provisions.²²

Most crypto assets should be treated as securities under most provisions using that term. Some provisions in the Code, however, use the term securities without implicating the taxation of crypto assets. For example, the Code offers special incentives for retirement-plan distributions of employer securities.²³ Those provisions exist to encourage employee ownership rather than to tax income.²⁴ Also, as crypto assets evolve, they may fall into categories other than securities. For example, stablecoins—crypto assets pegged to the U.S. dollar—might be properly characterized as “money” in the future.²⁵ Thus, the IRS's power to classify crypto assets needs to accommodate present exceptions and future changes.²⁶

The classification problem goes beyond asking whether one crypto asset falls within a category. We can also ask whether pairs of crypto assets share a relationship under the Code. As discussed below, the exchange of related crypto assets (like Bitcoin for “wrapped Bitcoin”) may or may not be a realization event under current law. The determination does not turn on taxpayer-specific facts, and the IRS could clarify the issue with a pronouncement available to all taxpayers.²⁷

I. CRYPTO ASSETS

A. Introduction and Terminology

This Article refers to cryptocurrencies and tokens collectively as crypto assets. Tokens are similar to cryptocurrencies in many ways, but they differ

21. See *infra* Part III.

22. See *infra* Section VII.A.

23. See I.R.C. § 402(e)(4).

24. See *infra* Section III.E.4.

25. If classified as “money,” the stablecoin would not be subject to taxation on gains or losses. See *infra* Section IV.A; cf. also *supra* note 3 and accompanying text (distinguishing between the taxation of currency and property).

26. See *infra* Section VII.B.

27. See *infra* Part VI, Section VII.C.

in how they relate to a blockchain. Cryptocurrencies are a native and inherent part of the blockchain; tokens are created and introduced by users and their smart contracts.²⁸ Confusion about the difference arguably led the IRS to issue problematic guidance.²⁹

Readers can equate the term crypto assets with the terms “virtual currency” and “digital assets” that regulators use. Despite this usage, their meaning can be problematic. The IRS has adopted the term “convertible virtual currency,” which the Financial Crimes Enforcement Network (FinCEN) first used in 2013.³⁰ Virtual currencies, however, predate Bitcoin and include video-game currency like World of Warcraft Gold and Second Life Linden dollars.³¹ The U.S. Securities and Exchange Commission (SEC) uses the term “digital asset.”³² Again, this term predates Bitcoin, and it includes a wide range of assets that predate Bitcoin such as computer image and music files,³³ which presumably are outside the scope of the SEC’s attention.

B. Bitcoin

Created in late 2008 and early 2009 by the pseudonymous Satoshi Nakamoto,³⁴ Bitcoin is the oldest and largest cryptocurrency. In early February 2022, each unit of Bitcoin had a market price of around \$42,000, and all Bitcoin in circulation had a value of roughly \$800 billion.³⁵

Bitcoin exists solely as a computational data structure. Unlike shares in most corporations, units of Bitcoin are not backed by assets, money, or business projects. Bitcoin does not produce dividends, interest, rents, or

28. See *infra* Section I.D.

29. See *infra* notes 105–07 and accompanying text.

30. See FINCEN 2013 GUIDANCE, *supra* note 2.

31. See Bryan T. Camp, *The Play’s the Thing: A Theory of Taxing Virtual Worlds*, 59 HASTINGS L.J. 1, 9 (2007) (discussing virtual currencies in the video-game context); Leandra Lederman, “*Stranger Than Fiction*”: Taxing Virtual Worlds, 82 N.Y.U. L. REV. 1620, 1622 (2007) (same).

32. See Framework for “Investment Contract” Analysis of Digital Assets, SEC (Apr. 3, 2019) [hereinafter *Digital Asset Framework*], https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets#_edn1 [<https://perma.cc/MB2K-486J>].

33. Cf., e.g., Jamie P. Hopkins, *Afterlife in the Cloud: Managing a Digital Estate*, 5 HASTINGS SCI. & TECH. L.J. 209, 211 (2013) (“[I]nformation stored on the internet, photographs, account information, videos, electronic documents, software, e-mails, and digital applications are all types of possible digital assets.”).

34. See Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN 1 (2008), <https://bitcoin.org/bitcoin.pdf> [<https://perma.cc/Z4RM-W6HH>] (proposing creation of Bitcoin in late 2008); Marcelo M. Prates, *Money in the Twenty-First Century: From Rusty Coins to Digital Currencies*, 15 OHIO ST. BUS. L.J. 164, 210 (2021) (“On Halloween 2008 . . . Satoshi Nakamoto published Bitcoin’s white paper—and changed money forever.”).

35. *Bitcoin*, COINMARKETCAP, <https://coinmarketcap.com/currencies/bitcoin/> [<https://perma.cc/3U6D-ZRXM>] (last visited Dec. 15, 2022).

royalties that we associate with traditional investment assets.³⁶ Bitcoin's value comes from markets where participants buy and sell.³⁷

Whether Bitcoin is a fundamentally sound asset or investment is irrelevant to this Article. It has endured for more than a dozen years and does not seem poised to recede in importance soon. Because it is a relatively new asset, Bitcoin presents difficult issues for tax classification. The IRS has asserted that Bitcoin is "property" and not "currency,"³⁸ but numerous issues remain unresolved (e.g., whether Bitcoin is a "security" for tax purposes). Much of this Article is devoted to resolving these issues.

C. *Ethereum and Smart Contracts*

In broad terms, Ethereum reproduces many of the features of Bitcoin while adding new functionality. Ethereum has a cryptocurrency—Ether—that exists on a decentralized blockchain like Bitcoin does. Bitcoin and Ethereum have different blockchains. Units of Ether and of Bitcoin are different cryptocurrencies and have different prices.³⁹

The main distinction between Ethereum and Bitcoin is that Ethereum supports *smart contracts*.⁴⁰ Smart contracts are computer programs that can control the transfer of Ether and data.⁴¹ As computer programs, smart contracts require computational resources to run. To prevent abuses of the Ethereum platform, users must pay for these computational resources using "gas."⁴² Absent the gas charge, users could run bloated, inefficient, or malicious code on the Ethereum system; every computer that replicates the

36. For example, I.R.C. § 7704(d)(1) defines the term "qualifying income" to include interest, dividends, real-property rents, and income from certain natural resources; it also includes capital gains on property held to produce such income. See I.R.C. § 7704(d)(1)(A)–(F). Crypto assets would typically not produce such items of income. Qualifying income could include gains from commodity transactions (including derivatives). See I.R.C. § 7704(d)(1)(G); see also Section IV.D (discussing whether crypto assets are "commodities" for tax purposes); Chason, *supra* note 14, at 138.

37. See Nikolei M. Kaplanov, Comment, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation*, 25 LOY. CONSUMER L. REV. 111, 113 (2012) ("Bitcoin has no intrinsic value, and there is no government, company, or independent organization upholding its value or monitoring its use. Instead, bitcoin relies on a peer-to-peer network to gain value through demand and maintains security through the program its users run on their personal machines." (footnotes omitted)).

38. See *infra* notes 77–78 and accompanying text.

39. See Michael Mendelson, *From Initial Coin Offerings to Security Tokens: A U.S. Federal Securities Law Analysis*, 22 STAN. TECH. L. REV. 52, 60 (2019).

40. See Kevin Werbach & Nicolas Cornell, *Contracts Ex Machina*, 67 DUKE L.J. 313, 333–34 (2017) (comparing Bitcoin and Ethereum).

41. See Nate Crosser, Note, *Initial Coin Offerings as Investment Contracts: Are Blockchain Utility Tokens Securities?*, 67 U. KAN. L. REV. 379, 386 (2018) ("A 'smart contract' is a computer program that automatically executes the terms of an agreement, conducting transactions when certain conditions are met per the 'if / then' commands of the code.").

42. See Jonathan Rohr & Aaron Wright, *Blockchain-Based Token Sales, Initial Coin Offerings, and the Democratization of Public Capital Markets*, 70 HASTINGS L.J. 463, 473 (2019) ("Ethereum requires users of the network seeking to execute a smart contract to pay miners a fee (called 'gas') for each computational step in the smart contract.").

Ethereum blockchain would be burdened. Gas is a mechanism by which Ethereum users must internalize these system-wide costs.⁴³

Using these smart contracts, many of today's most innovative crypto projects exist on the Ethereum blockchain. Decentralized finance (DeFi) is a term that covers projects on the Ethereum (and other) blockchains that purport to automate existing financial arrangements via smart contracts.⁴⁴ Decentralized automated organizations (DAOs) are projects that use smart contracts to replicate (or replace) business organizations like corporations.⁴⁵ Because such structures rely on smart contracts, they are not readily available on the Bitcoin platform but are available on Ethereum (and others).⁴⁶

D. Tokens

This Article uses the term crypto asset to cover cryptocurrencies (like Bitcoin) and tokens. Tokens are a specialized form of smart contract that can function like cryptocurrency.⁴⁷ Tokens are not, however, the same thing as the Ether cryptocurrency. Ether is an inherent part of Ethereum, and the transfer of Ether is reflected by the underlying Ethereum protocol that applies to all users.⁴⁸ In contrast, users create tokens on the Ethereum blockchain by deploying a smart contract, which handles ownership, transfers, and other rights. In short, Ether is native to the Ethereum blockchain and does not rely on smart contracts; tokens are introduced by blockchain users and their smart contracts.⁴⁹

In theory, tokens are bespoke, custom-made smart contracts crafted by these users. In practice, most tokens are deployed using a few standard

43. See Jeremy M. Sklaroff, Comment, *Smart Contracts and the Cost of Inflexibility*, 166 U. PA. L. REV. 263, 292 n.139 (2017).

44. See Alyssa Rose Domino, Note, *Decentralized Finance: Identity Protection and Economic Opportunity for Both Good and Bad Actors*, 59 AM. CRIM. L. REV. ONLINE 20, 24 (2021) (“The primary and currently most well-known DeFi infrastructure platform is Ethereum.”).

45. See *infra* note 348 and accompanying text.

46. See *infra* Section VI.D.1.

47. See generally Shaanan Cohny, David Hoffman, Jeremy Sklaroff & David Wishnick, *Coin-Operated Capitalism*, 119 COLUM. L. REV. 591, 599–610 (2019) (providing background on Ethereum tokens).

48. See ANDREAS M. ANTONOPOULOS & GAVIN WOOD, *MASTERING ETHEREUM* 227 (2019) (distinguishing Ether and tokens); Carol Goforth, *The Lawyer's Cryptionary: A Resource for Talking to Clients about Crypto-Transactions*, 41 CAMPBELL L. REV. 47, 97 (2019) (distinguishing tokens and cryptocurrency).

49. See Shlomit Azgad-Tromer, *Crypto Securities: On the Risks of Investments in Blockchain-Based Assets and the Dilemmas of Securities Regulation*, 68 AM. U. L. REV. 69, 82 (2018) (“Most notably, Ethereum supports the creation of ‘ERC-20 tokens,’ which are new asset types that can be transacted on the Ethereum blockchain—in addition to, and separately from, the native ‘ether’ blockchain-based asset (ETH).”).

protocols.⁵⁰ The ERC20 standard is used to develop *fungible* tokens.⁵¹ For example, I might wish to develop a new cryptocurrency called ChasonCoin. Rather than creating a brand new blockchain, however, I choose to deploy ChasonCoin as a token on the existing Ethereum blockchain. I could write my own smart contract to deploy ChasonCoin as an Ethereum token. The ERC20 standard, however, provides a proven template for a smart contract that creates fungible tokens like the hypothetical ChasonCoin. Several real-world cryptocurrencies are, in fact, ERC20 tokens created on the Ethereum blockchain.⁵²

The ERC20 protocol creates fungible tokens because the originating smart contract tracks only the balance of tokens held in an Ethereum account.⁵³ Thus, there is no way to distinguish between different types of tokens created by the same ERC20 smart contract. Users who want *nonfungible tokens* (NFTs) will deploy smart contracts under the ERC721 standard. The original purpose behind NFTs was to track ownership of specific property that exists outside of the Ethereum blockchain (e.g., a car).⁵⁴ Recent months have seen an explosion in NFTs representing some interest in or claim to digital works like art, tweets, and music.⁵⁵ Whether NFTs bestow ownership rights is a matter of debate.⁵⁶

For purposes of this Article, tokens are interesting because of the assets they represent. For example, a token could be used to represent ownership in the share of a corporation or in some other financial asset that exists outside of the blockchain.⁵⁷ A token might also operate as a “stablecoin,” representing one U.S. dollar.⁵⁸ A token could even represent one Bitcoin, serving as a way for users to transact *in* Bitcoin but *on* the Ethereum blockchain.⁵⁹ An important question is whether ownership of such tokens is equivalent to ownership of the represented asset (e.g., a share, a dollar, a Bitcoin) for tax purposes.

50. See ANTONOPOULOS & WOOD, *supra* note 48, at 249.

51. See Tonya M. Evans, *Cryptokitties, Cryptography, and Copyright*, 47 AIPLA Q.J. 219, 247–48 (2019) (describing ERC20 tokens).

52. For example, USD Coin (USDC) is a stablecoin that is intended to track the value of the U.S. dollar. Mechanically, it is an ERC20 token on the Ethereum blockchain. See *Introducing USD Coin (USDC)*, COINBASE, <https://www.coinbase.com/usdc> [<https://perma.cc/Z5DJ-32BD>].

53. See ANTONOPOULOS & WOOD, *supra* note 48, at 247.

54. See *id.*

55. See Christopher Mims, *NFTs, Cryptocurrencies and Web3 Are Multilevel Marketing Schemes for a New Generation*, WALL ST. J. (Feb. 19, 2022, 12:00 AM), <https://www.wsj.com/articles/nfts-cryptocurrencies-and-web3-are-multilevel-marketing-schemes-for-a-new-generation-11645246824> [<https://perma.cc/6ADF-GKXP>].

56. See Adrienne Westenfeld, *The Saga of the Dune Crypto Bros and Their Very Pricey Mistake Is at Its End*, ESQUIRE (July 28, 2022), <https://www.esquire.com/entertainment/books/a38815538/dune-crypto-nft-sale-mistake-explained/> [<https://perma.cc/HX7Q-AKPR>].

57. See ANTONOPOULOS & WOOD, *supra* note 48, at 222.

58. See *infra* Section I.F.

59. See *infra* Section VI.D.1 (discussing wrapped Bitcoin).

E. *Ripple/XRP*

Crypto assets have differing levels of decentralization and user bases. Unlike Ether and Bitcoin, the XRP cryptocurrency is closely tied to a corporation and business model. The corporation, Ripple Labs, Inc., developed XRP as a mechanism for efficient international payments between financial institutions.⁶⁰ The close ties to Ripple Labs are relevant to tax categorization, however, because XRP is arguably a security under the securities law. Indeed, the SEC has brought an enforcement action against Ripple and some of its executives, claiming that XRP is an unregistered security.⁶¹ Some might infer that an SEC victory could cause XRP to be classified as a security under the Code, even if Bitcoin, Ether, and other crypto assets are not.

Like Bitcoin and Ether, XRP is not backed by assets and functions like a cryptocurrency. Bitcoin and Ether almost certainly are not such securities because they are not tied to an individual business enterprise.⁶² Neither Bitcoin, Ether, nor XRP represents an equity or debt claim to a corporation. As discussed more below, the securities-law treatment should not matter to the Code.⁶³

F. *Stablecoins*

In general, crypto assets float against the dollar or other currency in which they are traded. Stablecoins, however, are designed to trade at or near one U.S. dollar per unit.⁶⁴ Recent months have seen an explosive growth in

60. See Iris H-Y Chiu & Ernest WK Lim, *Technology vs Ideology: How Far Will Artificial Intelligence and Distributed Ledger Technology Transform Corporate Governance and Business?*, 18 BERKELEY BUS. L.J. 1, 60 n.360 (2021).

61. See Complaint at 1, 4, SEC v. Ripple Labs, Inc., No. 20-cv-10832 (S.D.N.Y. Dec. 22, 2020); see also Andrew Bull & Tyler Harttraft, *Cryptocurrency and Blockchain Law: SEC's Heightened Enforcement Against Digital Assets*, 27 RICH. J.L. & TECH. 1, 23–32 (2021) (discussing *SEC v. Ripple Labs, Inc.*).

62. See *infra* note 114 and accompanying text.

63. See *infra* Section III.A.

64. See PRESIDENT'S WORKING GRP. ON FIN. MKTS., FED. DEPOSIT INS. CORP. & OFF. OF THE COMPTROLLER OF THE CURRENCY, REPORT ON STABLECOINS 1 (Nov. 2021) [hereinafter PWG REPORT], https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf [<https://perma.cc/46VS-H3ZS>] (“Stablecoins are digital assets that are designed to maintain a stable value relative to a national currency or other reference assets.”).

stablecoins,⁶⁵ prompting concern among some about their role in the U.S. financial system.⁶⁶

The largest stablecoins are backed by actual currency and thus known as “fiat-backed” stablecoins.⁶⁷ Tether Holdings maintains the USDT cryptocurrency, which is the largest and most controversial stablecoin. At the end of 2021, the market capitalization of USDT was \$38 billion.⁶⁸ Tether Holdings claims that USDT is fully backed by bank accounts holding U.S. dollars,⁶⁹ but skeptics (including the Commodity Futures Trading Commission (CFTC)) have challenged this claim.⁷⁰ USD Coin (USDC) is the second-largest stablecoin. At the end of 2021, its total market capitalization was \$38 billion.⁷¹ Like USDT, USDC is backed by U.S. dollars and other non-crypto reserves.⁷²

Not all stablecoins are backed by fiat currency. Some are backed by other crypto assets and algorithms to maintain parity with the U.S. dollar. The DAI and TerraUSD (UST) stablecoins are the largest in this category. At the end of 2021, DAI had a market capitalization of \$9 billion,⁷³ and UST had a market capitalization of \$10 billion.⁷⁴ While the stability mechanism for fiat-backed stablecoins like USDT and USDC is fairly simple, the algorithmic methods for DAI and UST are not. The details are beyond this scope of this Article.⁷⁵

65. Over 2021, the total supply grew from \$28.72 billion to \$164.51 billion. *See Stablecoins: Total Ethereum Stablecoin Supply*, BLOCK, <https://www.theblockcrypto.com/data/decentralized-finance/stablecoins/total-stablecoin-supply-daily> [<https://perma.cc/9JXT-9Q72>] (last visited Dec. 15, 2022) (comparing total supply on December 31, 2020 and December 31, 2021); PWG REPORT, *supra* note 64, at 7 n.20 (“Stablecoin supply grew from \$21.5 billion on October 19, 2020 to \$127.9 billion as of October 18, 2021, representing an increase of approximately 495 percent.”).

66. *See* PWG REPORT, *supra* note 64, at 12–15.

67. *See* Jackson Wood, Opinion, *How Stablecoins Merge Traditional and Decentralized Finance*, COINDESK (Dec. 16, 2021, 7:50 AM), <https://www.coindesk.com/tech/2021/12/16/how-stablecoins-merge-traditional-and-decentralized-finance/> [<https://perma.cc/N7ZR-DMFJ>].

68. *See* BLOCK, *supra* note 65 (navigating to USDT data).

69. *See* *Why Use Tether?*, TETHER, <https://tether.to/en/why-tether> [<https://perma.cc/56DL-FD29>] (last visited Dec. 15, 2022) (“All Tether tokens are pegged at 1-to-1 with a matching fiat currency (e.g., 1 USDT = 1 USD) and are backed 100% by Tether’s reserves. The reserves match or exceed the amount required to redeem all Tether tokens in circulation.”).

70. *See, e.g.*, Order Instituting Proceedings Pursuant to Section 6(c) and (d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions, *In re Tether Holdings Ltd.*, CFTC No. 22-04, 2021 WL 8322874, at *4 (Oct. 15, 2021) (“[F]or the time period of September 2, 2016 through November 1, 2018, the aggregate amount of fiat currency held by Tether in the Tether Bank Accounts was less than the corresponding USDT tokens in circulation on 573 of 791 days . . .”).

71. *See* BLOCK, *supra* note 65 (select “USDC data”).

72. *See* *Introducing USD Coin: A Stablecoin Brought to You by Circle and Coinbase*, CENTRE, <https://www.centre.io/usdc> [<https://perma.cc/P79E-7MWE>] (last visited Dec. 15, 2022).

73. *See* BLOCK, *supra* note 65 (select “DAI data”).

74. *See id.* (select “UST data”).

75. *See generally* Ryan Clements, *Built to Fail: The Inherent Fragility of Algorithmic Stablecoins*, 11 WAKE FOREST L. REV. ONLINE 131, 135 (2021) (“The most unstable and fragile variety

II. EXISTING IRS GUIDANCE ON THE TAXATION OF CRYPTO ASSETS

A. Internal Revenue Service 2014 Notice

Issued when cryptocurrency was barely known to the general public, IRS Notice 2014-21 remains the agency's foremost pronouncement on the taxation of cryptocurrencies.⁷⁶ While the Notice uses the term "virtual currency," this Article will use the more common term cryptocurrency or (when referring to cryptocurrencies or tokens) crypto assets. Notice 2014-21 classifies crypto assets not as "currency"⁷⁷ but as "property."⁷⁸ Thus, the rules that apply to most investment assets (like real property and securities) also apply to crypto assets.⁷⁹

Most taxpayers will hold crypto assets for investment purposes; for them, the crypto asset will be a capital asset like other investment assets (stocks, bonds, etc.)⁸⁰ In a rising market, capital-asset classification helps taxpayers who hold crypto assets for more than one year. In this scenario, any gain is "long-term capital gains" and taxed at a lower, preferential rate.⁸¹ Under current law, the maximum rate for most long-term capital gains of an individual is 20%.⁸² If the capital asset was held for one year or less, the resulting short-term capital gains are taxed at the rates that apply to "ordinary income" (such as wages and salary). The current maximum rate on ordinary income is 37%.⁸³ In a declining market, capital-asset classification harms taxpayers because they may not freely deduct their capital losses.⁸⁴ The Notice also states that cryptocurrencies are not "currency" that could be eligible for de minimis personal-use exceptions.⁸⁵

of stablecoins are 'algorithmic,' which are not fully collateralized and use market incentives, arbitrage opportunities, automated smart contracts, and reserve token adjustments to attempt to maintain a stable peg."); Haseeb Qureshi, *A Visual Explanation of Algorithmic Stablecoins*, MEDIUM (Apr. 27, 2021), <https://medium.com/dragonfly-research/a-visual-explanation-of-algorithmic-stablecoins-9a0c1f0f51a0> [<https://perma.cc/U6L5-D8KC>] (describing stability mechanisms of DAI, UST, and other non-fiat-backed stablecoins).

76. See Notice 2014-21, *supra* note 1.

77. See *id.* at 938, Q&A 2; *cf.* Section IV.B (discussing applicability of foreign currency category).

78. See Notice 2014-21, *supra* note 1, at 938, Q&A 1.

79. See *supra* note 3.

80. See Notice 2014-21, *supra* note 1, at 939, Q&A 7. I.R.C. § 1221(a) classifies property as a capital asset, subject to several exceptions. For cryptocurrencies, the most important exception would be for dealers, who do not treat their holdings as capital assets. *Cf.* I.R.C. § 1221(a)(1) (excluding from the definition of capital asset "property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business").

81. See I.R.C. § 1222(3) (defining long-term capital gain); § 1222(11) (defining net capital gain).

82. See BITTKER & LOKKEN, *supra* note 3, ¶ 46.2.3.

83. See Rev. Proc. 2021-45 § 3.01, tbls. 1–3, 2021-48 I.R.B. 764, 765–67.

84. See I.R.C. § 1221.

85. See generally *infra* notes 245–50 (describing the personal-use exemption).

The Notice also asserts that cryptocurrency miners have gross income when they receive a mining award.⁸⁶ By referring to “receipt” of the award, the Notice seems to suggest that the award is transferred from a third party to the successful miner. Miners, however, claim newly created cryptocurrencies produced by the underlying algorithms of their systems. There is no third party who transfers the award to the miner. Arguably, the IRS could have taxed miners differently, perhaps looking to the taxation of physical mining activities for guidance.⁸⁷

B. 2019 Frequently Asked Questions

In late 2019, the IRS published a series of Frequently Asked Questions (FAQs) on Virtual Currency Transactions on its website.⁸⁸ Most of the FAQs were aimed at improving compliance by taxpayers rather than answering fundamental questions of tax professionals. For example, the FAQs describe several ways that taxpayers will have gross income when they receive crypto assets, stating that taxpayers have gross income when they receive them as payment for services.⁸⁹

The 2019 FAQs did, however, expand upon the 2014 Notice by addressing valuation. Taxpayers who receive payment in crypto assets need to value them in dollars to determine gross income. If the taxpayer received it through an established exchange, then the taxpayer uses the price determined by the exchange.⁹⁰ Interestingly, when the crypto was not received through an exchange, the 2019 FAQs permit taxpayers to use values from an internet-based blockchain explorer.⁹¹

The 2019 FAQs also clarified the troublesome issue of determining gain or loss from crypto assets acquired at different times for different prices. For example, suppose Alice acquired 1 BTC in 2013 for \$100 and 1 BTC in 2020 for \$20,000. In 2022, Alice sells 1 BTC to Bob for \$40,000. Did Alice sell the 1 BTC acquired in 2020, the 1 BTC acquired in 2013, or perhaps 0.5 BTC of each? Alice’s gross income varies considerably

86. See Notice 2014-21, *supra* note 1, at 939, Q&A 8.

87. See Chason, *Bitcoin Cash*, *supra* note 15, at 27. In traditional mining activities, decentralized parties compete to validate transactions based on computational power. In proof-of-stake systems, however, decentralized parties “stake” their existing cryptocurrencies rather than compete based on computational power. Some taxpayers have argued that staking rewards should not be taxed immediately because they are extensions of the staked property. See Nathan J. Richman & Mary Katherine Browne, *Tax Pros Burst Overeager Cryptocurrency Community Bubble*, 174 TAX NOTES FED. 1148, 1149 (Feb. 21, 2022).

88. See *Frequently Asked Questions on Virtual Currency Transactions*, I.R.S. [hereinafter 2019 FAQs], <https://www.irs.gov/individuals/international-taxpayers/frequently-asked-questions-on-virtual-currency-transactions> [https://perma.cc/3JU3-LF8Z].

89. See *id.* at Q&A 9.

90. See *id.* at Q&A 26.

91. See *id.* at Q&A 27.

depending upon the answer.⁹² The 2019 FAQs resolve this issue by implicitly following regulations on the sale or exchange of stocks and bonds.⁹³ Under the regulations, taxpayers may select which stocks or bonds are sold or exchanged so long as they make an adequate identification. Absent an adequate identification, the taxpayer is deemed to have sold or exchanged the ones acquired at the earliest time. The 2019 FAQs apply this system to sales and exchanges of crypto assets with some minor modifications specific to crypto assets.⁹⁴

Curiously, the regulations themselves speak in terms of stocks and bonds.⁹⁵ Some cryptocurrencies could be characterized as such.⁹⁶ Bitcoin, Ether, and most cryptocurrencies would not.⁹⁷ Nevertheless, applying the adequate identification regulations to cryptocurrencies accords with the larger purposes of the regulation. Like stocks and bonds, units of a particular crypto asset are usually fungible. One Bitcoin unit has the same value as any other.⁹⁸

This identification issue gives a glimpse into the larger themes of this Article. First, the existing doctrinal categories are often inadequate to handle cryptocurrencies. The identification regulations speak to stocks and bonds; Bitcoin and most other cryptocurrencies are neither.⁹⁹ Second, it is possible to determine whether cryptocurrencies fall within the larger policies that were supported by the categorization. While the identification regulations

92. Alice will have gains derived from dealings in property, included in gross income under I.R.C. § 61(a)(3). The amount of gain is her amount realized less basis. *See* I.R.C. § 1001(a); Treas. Reg. § 1.61-6(a) (1957). Her amount realized is \$40,000, the amount she received from Bob. *See* I.R.C. § 1001(b). Identifying the bitcoin sold lets us determine the basis (or cost). *See* I.R.C. §§ 1011(a), 1012(a). The possible amounts of gain are \$20,000 (\$40,000 – \$20,000), \$39,900 (\$40,000 – \$100), and \$29,950 (\$40,000 – \$10,050).

93. Treas. Reg. § 1.1012-1(c)(1)(i) (as amended in 2010) describes the problems as where “a taxpayer sells or transfers shares of stock in a corporation that the taxpayer purchased or acquired on different dates or at different prices.” Treas. Reg. § 1.1012-1(c)(6) extends the solution to bonds.

94. *See* 2019 FAQs, *supra* note 88, at Q&A 39–41. Owners “may identify a specific unit of virtual currency either by documenting the specific unit’s unique digital identifier such as a private key, public key, and address, or by records showing the transaction information for all units of a specific virtual currency, such as Bitcoin, held in a single account, wallet, or address.” *Id.* at Q&A 40.

95. *See supra* note 93.

96. *See infra* note 113 and accompanying text (discussing SEC enforcement action against Ripple Labs Inc.).

97. *See infra* notes 284–88 and accompanying text.

98. Some cryptoassets, however, are not fungible. Nonfungible tokens, for example, are usually based on common Ethereum protocol, but individual units are not fungible. Your CryptoKitty is different from all the others. *See, e.g.*, Bryan Wilson, *Blockchain and the Law of the Cat: What Cryptokitties Might Teach*, 88 UMKC L. REV. 365, 379 (2019) (“Cryptokitties is a game played on the Ethereum blockchain . . .”).

99. The 2019 FAQs, *see supra* note 88, do not elaborate on the source of its specific identification rules. Other authors have noted the similarity with Treas. Reg. § 1.1012-1(c). *See, e.g.*, Jim Calvin, *Taxation of Cryptocurrencies*, 190 Tax Mgmt. Portfolio (BL) ¶ 111.5 (2019) (“IRS FAQs, Q&A-36, -37, and -38 describe specific identification requirements for dispositions of virtual currency which are substantially similar to the adequate identification rules provided for stocks and bonds.”).

expressly speak to stocks and bonds, we can infer a larger purpose about the correct taxation of fungible, intangible assets.¹⁰⁰

C. Other Guidance

The IRS released two Chief Counsel Memoranda dealing with fairly straightforward issues. In one, the IRS opined that crypto assets earned in microtasking assignments are gross income.¹⁰¹ Typical microtasking assignments include online activities like writing reviews and taking surveys. There is little reason to think that taxpayers should avoid gross income in these circumstances. In another, the IRS opined that taxpayers could not engage in a tax-deferred like-kind exchange of different cryptocurrencies.¹⁰² So, a taxpayer who exchanged Bitcoin for Ether would need to recognize any gain or loss on the exchange. The opinion is relevant only before 2018; later like-kind exchanges are available only for real property.¹⁰³

The IRS's most controversial guidance addressed the taxation of hard forks. During a hard fork, developers essentially clone an existing blockchain creating an entirely new cryptocurrency. Famous hard forks include Ethereum Classic (forked from Ethereum) and Bitcoin Cash (forked from Bitcoin). When the forks occurred, owners of the original cryptocurrency retained existing units (Ethereum, Bitcoin) and received new units from the new blockchain (Ethereum Classic, Bitcoin Cash). Were the new units gross income when received? The hard forks raised interesting issues relating to fundamental tax doctrine such as whether the recipient has income upon receiving the new units or disposing of them.¹⁰⁴

It is likely the IRS thought it was addressing Bitcoin Cash and Ethereum Classic in Revenue Ruling 2019-24.¹⁰⁵ Unfortunately, the ruling conflated hard forks with air drops. A hard fork results in new cryptocurrency that is native to the newly created blockchain. Air drops are distributions of free

100. Arguably, the principles of the regulations apply to fungible property beyond stocks and bonds as a matter of common law. *See, e.g.,* *Perlin v. Comm'r*, 86 T.C. 388, 430 (1986) (“A useful analogy is provided in the Income Tax Regulations concerning the treatment of stock sales. Where an investor is selling stock from a portfolio held by his broker, he may identify the specific shares to be sold, or he may assume that the shares are disposed of on a FIFO basis.”).

101. I.R.S. CCA 202035011 (Aug. 28, 2020).

102. I.R.S. CCA 202124008 (June 18, 2021).

103. *See* I.R.C. § 1031(a)(1) (limiting like-kind exchanges to “the exchange of real property held for productive use in a trade or business or for investment”); *infra* Section VI.B.

104. *See* Chason, *Bitcoin Cash*, *supra* note 15, *passim*.

105. Rev. Rul. 2019-24, 2019-44 I.R.B. 1004; *see also* Chason, *Hard Forks*, *supra* note 15, *passim*.

tokens created using smart contracts.¹⁰⁶ They are distinct, but the Revenue Ruling nevertheless found that a hard fork results in gross income when the new units are received through an air drop. Ethereum Classic and Bitcoin Cash did not involve air drops, which are typically promotional mechanisms involving tokens. Though both involve unearned windfalls, hard forks result in new cryptocurrency, native to the underlying blockchain; air drops involve tokens created using smart contracts.¹⁰⁷ Despite the IRS's misunderstanding, we can infer from the ruling that the IRS believes the major hard forks resulted in gross income to the holders, but uncertainty continues to cloud the issue.

This Article does not address the taxation of hard forks in detail as they do not involve classifying crypto assets (beyond recognizing them as property). Still, the episode provides some insight into the classification problem described in this Article. To be effective, the IRS needs the resources and technical abilities to understand how various elements of crypto assets work. Also, assuming the IRS was trying to describe the taxation of Ethereum Classic and Bitcoin Cash, it should have said so expressly and described the tax consequences in detail. Speaking in generalities only muddied the analysis. Ethereum Classic and Bitcoin Cash are completely public and involve no confidential taxpayer information. In fact, the ruling could have gone so far as to address the value of the new units received.¹⁰⁸

D. Categorization Beyond Current Guidance

The discussion above cites and discusses (at least briefly) all IRS guidance issued on crypto assets through early 2022. The guidance establishes some foundational principles. Most importantly, crypto assets are “property,” but they are not “currency.” The guidance also provides some context-specific determinations such as the taxation of miners and portfolio investors. The guidance leaves many questions unanswered.¹⁰⁹ For

106. See Andrey Sergeenkov, *What Is a Crypto Airdrop?*, COINDESK (Jan. 18, 2022, 9:31 AM), <https://www.coindesk.com/learn/what-is-a-crypto-airdrop/> [<https://perma.cc/UG2U-7YD5>]; see also *supra* Section I.D (describing tokens).

107. Cf. Doris Stacey Gama, *Creating Something Out of Nothing: Taxation of Cryptocurrency Hard Forks*, 31 ALB. L.J. SCI. & TECH. 258, 269–70 (2021) (criticizing the IRS's confusion between airdrops and hard forks); N.Y. STATE BAR ASS'N TAX SECTION, REP. NO. 1433, REPORT ON THE TAXATION OF CRYPTOCURRENCY 8 (Jan. 26, 2020), <https://nysba.org/app/uploads/2020/03/Report-1433.pdf> [<https://perma.cc/2QM3-6399>] (requesting clarification from IRS).

108. See Chason, *Hard Forks*, *supra* note 15, at 286 (“The IRS should specifically answer two essential questions about these Bitcoin Cash units. What was the precise time at which the new units of Bitcoin Cash were created? What was the value of one unit of Bitcoin Cash at that time?”).

109. See N.Y. STATE BAR ASS'N TAX SECTION, *supra* note 107, at 35–41 (listing unanswered questions for future guidance).

example, several provisions in the Code provide special rules for “securities.”¹¹⁰ The next Part discusses whether those provisions apply to crypto assets.

III. CRYPTO ASSETS AS SECURITIES FOR TAX PURPOSES

A. *Crypto Assets Under the Securities Laws*

Securities law classification has proven to be one of the most contentious issues related to crypto assets. The seminal case is *SEC v. W.J. Howey Co.*, which established the eponymous test for whether an investment vehicle is an “investment contract” and thus a “security” for securities law purposes.¹¹¹ The SEC describes the *Howey* test as follows:

The U.S. Supreme Court’s *Howey* case and subsequent case law have found that an “investment contract” exists when there is the investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others. The so-called “*Howey* test” applies to any contract, scheme, or transaction, regardless of whether it has any of the characteristics of typical securities. The focus of the *Howey* analysis is not only on the form and terms of the instrument itself (in this case, the digital asset) but also on the circumstances surrounding the digital asset and the manner in which it is offered, sold, or resold (which includes secondary market sales). Therefore, issuers and other persons and entities engaged in the marketing, offer, sale, resale, or distribution of any digital asset will need to analyze the relevant transactions to determine if the federal securities laws apply.¹¹²

If construed as an investment contract, a crypto asset would be a security subject to securities law, such as registration with the SEC. For example, the SEC brought an enforcement action against Ripple Labs, Inc. asserting that it issued the XRP cryptocurrency as an unregistered security.¹¹³ In contrast, the SEC has indicated that it would not be treating the two largest cryptocurrencies, Bitcoin and Ether, as securities for securities law

110. See *infra* Part III.

111. 328 U.S. 293, 297–99 (1946).

112. *Digital Asset Framework*, *supra* note 32.

113. See Complaint at 1, *SEC v. Ripple Labs, Inc.*, No. 20-cv-10832 (S.D.N.Y. Dec. 22, 2020) (“From at least 2013 through the present, Defendants sold over 14.6 billion units of a digital asset security called ‘XRP,’ in return for cash or other consideration worth over \$1.38 billion U.S. Dollars (‘USD’), to fund Ripple’s operations and enrich Larsen and Garlinghouse. Defendants undertook this distribution without registering their offers and sales of XRP with the SEC as required by the federal securities laws, and no exemption from this requirement applied.”).

purposes.¹¹⁴ Both are decentralized, and neither relies on a third party to maintain an associated enterprise.¹¹⁵

The Code contains several provisions that apply to securities. Consistency between tax law and securities law may sound appealing because determinations for securities law purposes would allow taxpayers to avoid additional analysis under the tax law. The initial appeal, however, is not ultimately warranted, and the investment-contract analysis and *Howey* test should not be dispositive as to tax classifications.¹¹⁶ The SEC and securities laws exist to protect investors and ensure the functioning of markets.¹¹⁷ The tax laws, in contrast, exist to raise revenue in a reasonable and equitable way.¹¹⁸ The remainder of this Part will analyze several provisions of the Code that turn on whether a crypto asset is a “security.”

B. Wash-Sale Rules

1. Statutory Restrictions on Loss Harvesting

Suppose that you invested in Peloton Interactive, Inc. in December 2020. At that time, the share price of Peloton reached a price of about \$162. By February 2022, however, shares of Peloton had fallen to about \$25.¹¹⁹ Despite this recent collapse, you continue to believe that Peloton is a good financial investment. For tax purposes, however, you would like to deduct the loss.¹²⁰ So, you sell your shares of Peloton in February 2022 in the hopes of claiming a loss deduction of \$125 per share. To maintain your Peloton investment, however, you quickly replace the sold shares with newly purchased ones. At the end of February, your investment in Peloton remains as it was at the beginning.

114. See Carol R. Goforth, *How Blockchain Could Increase the Need for and Availability of Contractual Ordering for Companies and Their Investors*, 94 N.D. L. REV. 1, 15 n.65 (2019); William H. Hinman, Dir., Div. of Corp. Fin., SEC, Digital Asset Transactions: When *Howey* Met Gary (Plastic) (June 14, 2018), <https://www.sec.gov/news/speech/speech-hinman-061418> [<https://perma.cc/37VV-WRV2>].

115. See Hinman, *supra* note 114.

116. Whether the tax classification is relevant to the securities-law issue is beyond the scope of this Article.

117. See *What We Do*, SEC, <https://www.sec.gov/about/what-we-do> [<https://perma.cc/9VPR-Q38Z>] (last visited Dec. 15, 2022).

118. See Jeff Hoopes, *What Is the Purpose of the Internal Revenue Code?*, UNC TAX CTR. (Oct. 8, 2021), <https://tax.unc.edu/index.php/news-media/what-is-the-purpose-of-the-internal-revenue-code/> [<https://perma.cc/XLD6-FVYN>].

119. See *Peloton Interactive, Inc. (PTON)*, YAHOO!FINANCE, <https://finance.yahoo.com/quote/PTON> [<https://perma.cc/7S85-CMB8>] (last visited Dec. 15, 2022) (select “Max range” to display historical stock prices).

120. Cf. I.R.C. § 165(a) (granting loss deduction); Treas. Reg. § 1.165-4(a) (1960) (describing potential loss deduction upon sale or exchange of stock).

Under the Code, taxpayers account for gain and loss when “realized” by a sale or exchange.¹²¹ While you technically sold your original Peloton stock, you have not substantially changed your economic position over the course of February 2022. Thus, the “realization event” of the sale was undermined by the replacement. Reflecting these concerns, section 1091(a) disallows the loss deduction as resulting from a “wash sale”:

In the case of any loss claimed to have been sustained from any sale or other disposition of shares of stock or securities where it appears that, within a period beginning 30 days before the date of such sale or disposition and ending 30 days after such date, the taxpayer has acquired . . . or has entered into a contract or option so to acquire, substantially identical stock or securities, then no deduction shall be allowed¹²²

The statutory analysis is straightforward. Peloton is stock. Within thirty days of selling Peloton, you acquired “substantially identical” stock. (You bought and sold Peloton stock.) As a result, no deduction shall be allowed for the \$125 per share loss realized on the initial sale. The policy behind denying the loss deduction is straightforward as well. According to the IRS, “[t]he purpose of the wash sales provisions is to prevent tax manipulation by a taxpayer who attempts to recognize a loss on the sale of ‘securities’ while maintaining an identical or nearly identical investment position.”¹²³

The question becomes murkier if we move from Peloton to Bitcoin. Suppose you bought Bitcoin at its all-time high of \$67,500 in November 2021. In February 2022, you sold it for \$40,000 but quickly replaced the sold Bitcoin. May you deduct the resulting loss of \$27,500? The answer turns on the classification of Bitcoin as a security.

2. Wash-Sale “Securities”

Note that the wash-sale rules in section 1091(a) apply only to a “loss claimed to have been sustained from any sale or other disposition of shares of stock or securities.” Peloton is clearly “stock.” Crypto assets typically are not. They are representations of value not backed by any assets.¹²⁴ Are crypto assets “securities”? Based on the limited authorities, it is unlikely

121. See Treas. Reg. § 1.1001-1(a) (as amended in 2017) (referring to the gain or loss realized from the sale or exchange of property); see also Treas. Reg. §§ 1.165-1(b) (as amended in 1977) (requiring losses to be evidenced by “closed and completed transactions”), -4(a) (denying deductions for mere decline in value).

122. I.R.C. § 1091(a).

123. I.R.S. Gen. Couns. Mem. 38,369 (May 9, 1980).

124. See *supra* note 36 and accompanying text.

that a court would interpret securities to include Bitcoin, Ether, or most other crypto assets.

In *Gantner v. Commissioner*, the United States Tax Court held that “section 1091(a) does not apply to disallow losses sustained on the sales of stock options.”¹²⁵ Part of this holding was based on the court’s parsing of the plain language of the statute. For section 1091(a) to apply, there must be a disposition of stock or securities and a reacquisition within thirty days.¹²⁶ At the time of the decision, the statute expressly included options in the “reacquisition” prong but not in the “disposition” prong of the statute.¹²⁷ So, if the taxpayer had sold shares of stock and, within thirty days, acquired options to purchase the same, section 1091(a) would apply. This express inclusion in the reacquisition prong led the court to conclude that options must be outside the disposition prong. As a result, the disposition of options did not trigger section 1091(a). This fine reading sheds no light on whether crypto assets are subject to the wash-sale rules. Unlike options, crypto assets are not mentioned in the statute at all.

The Tax Court buttressed its textual analysis, however, with an examination of the market for options. Congress did not contemplate including options in the wash-sale rules because option markets did not exist when the statute was drafted in the early 1920s.¹²⁸ Congress amended other statutes as option markets developed but did not amend the wash-sale rules.

[T]he facts that (1) there is no legislative history to indicate that Congress ever has intended stock options to be “securities” within the meaning of section 1091, (2) there was no significant market for the resale of options when Congress first passed a statutory wash sale provision in the 1920s, and (3) Congress has not amended section 1091 so as to include stock options specifically within the purview of that statute, when taken together, lead us to conclude that Congress has never intended for losses on sales of stock options to be subject to disallowance under the statutory wash-sale provision of section 1091.¹²⁹

125. 91 T.C. 713, 724–25 (1988), *aff’d*, 905 F.2d 241 (8th Cir. 1990).

126. *Id.* at 720.

127. *See id.* at 720–21. Congress would later amend the statute so that options on stock and securities are covered by both prongs. *See* Technical and Miscellaneous Revenue Act of 1988, Pub. L. No. 100-647, § 5075(a), 102 Stat. 3342, 3682 (amending I.R.C. § 1091(a)) (“For purposes of this section, the term ‘stock or securities’ shall, except as provided in regulations, include contracts or options to acquire or sell stock or securities.”).

128. *See Gantner*, 91 T.C. at 724 (“The fact that there was no ready resale market for stock options in 1921 end 1924 would explain why Congress did not then contemplate stock options being ‘stock or securities’ for purposes of section 1091.”).

129. *Id.*

This analysis of legislative intent applies equally to options and crypto assets. They certainly did not exist when Congress enacted the wash-sale rules, and Congress has not amended the statute to cover them.¹³⁰

Other authorities support excluding most crypto assets from the wash-sale rules. In an internal General Counsel Memorandum, the IRS looked to another Code provision, section 1236(c), to interpret the wash-sale rules.¹³¹ Under it, “‘security’ means any share of stock in any corporation, certificate of stock or interest in any corporation, note, bond, debenture, or evidence of indebtedness, or any evidence of an interest in or right to subscribe to or purchase any of the foregoing.”¹³² This definition seems to exclude Bitcoin, Ether, and most crypto assets because they do not represent equity or debt in a corporation or an option on such equity or debt. Some specialized crypto assets, however, could well represent shares in a corporation or indebtedness.¹³³

Because of *Gantner* and similar analysis, practitioners typically argue that the current wash-sale rules do not apply to crypto assets.¹³⁴ Before concluding crypto assets are categorically exempt from the wash-sale rules, we must remember that some narrow categories of crypto assets could be construed as “investment contracts” and thus as securities under the securities laws. For example, a DAO may simply be a disguised corporation issuing securities in the guise of a crypto asset.¹³⁵ Nevertheless, the *Gantner* analysis does not seem to cover mere investment contracts; the section 1236(c) definition clearly does not. Absent some new theory of the wash-sale rules, crypto assets should be excluded from their scope under current law unless they represent equity or debt in a corporation or an option on either.

130. *But cf.* Matthew B. Kulkin, Lisa M. Zarlenga, Micah S. Green & Alan Cohn, *Build Back Better ‘Wash Sales’ Legislation Would Impact Currency, Commodity, Options, and Digital Asset Markets*, STEPTOE (Nov. 2, 2021), <https://www.stepto.com/en/news-publications/build-back-better-wash-sales-legislation-would-impact-currency-commodity-options-and-digital-asset-markets.html> [<https://perma.cc/98J2-6XLN>] (describing legislative proposals to expand the wash-sale rules to cover digital assets).

131. *See* I.R.S. Gen. Couns. Mem. 39,551 (Aug. 26, 1986) (“Accordingly, we view Temp. Reg. 1.1092(b)-5T(g) as defining the term ‘securities’ in section 1091 with reference to the definition of ‘securities’ in section 1236(c).”).

132. I.R.C. § 1236(c).

133. *See* Sarah Wynn, *SEC’s Gensler Singles Out Crypto Lending in Call for New Regulation*, CQ ROLL CALL, 2021 WL 4931655 (Oct. 22, 2021).

134. *See, e.g.*, Andrea S. Kramer, *When Virtual Currency Positions Are Subject to the Wash Sales Rule*, McDERMOTT WILL & EMERY (June 17, 2020), <https://www.mwe.com/insights/when-virtual-currency-positions-are-subject-to-the-wash-sales-rule/> [<https://perma.cc/E78X-X3N3>] (“Some convertible virtual currencies—such as Bitcoin—are likely to be treated as ‘commodities’ for tax purposes, not as actual stock or securities. As a result, losses from the sale, exchange or other disposition of convertible virtual currencies are not deferred under the wash sales rules.”).

135. *See infra* note 197 and accompanying text; *cf. supra* Section III.A (discussing securities law treatment of cryptocurrencies and digital assets).

3. *Crypto Assets and the Larger Purposes of the Wash-Sale Rules*

Broadly stated, the wash-sale rules prevent taxpayers from deducting losses when they have not suffered a change in economic position. Under the realization doctrine, taxpayers elect when they realize gain or loss by choosing the time they sell or exchange assets. By their own inaction and failure to sell, taxpayers defer gains when they do not desire to change their underlying investments. The wash-sale rules enact a rough type of parity. While maintaining their investment position, taxpayers may defer taxable gains but should not be allowed to accelerate deductible losses.¹³⁶

Thus, the wash-sale rules filter certain losses, deferring taxpayers' deductions.¹³⁷ Mechanically, the filter applies when both (1) taxpayers dispose of stock or securities and (2) within thirty days before or after the disposition, "acquire[] substantially identical stock or securities."¹³⁸ Presumably, Congress made "stock or securities" subject to the wash-sale rules because they are fungible. Investors are ordinarily indifferent as to which corporate share they own (so long as they are of the same class). Outside of taxes and broker fees, next to nothing has happened if an investor sells a share of Peloton and reacquires a share a minute later.¹³⁹ We could contrast this result with the sale and reacquisition of real property. If a taxpayer sells Blackacre for cash and immediately acquires Whiteacre, she is in a markedly different economic position.¹⁴⁰

Like stock and securities, cryptocurrency units and many tokens are fungible. One unit of Bitcoin is typically no different from another.¹⁴¹ Moreover, an investor who sells and reacquires Bitcoin in quick succession has had no appreciable change in her economic position. Also, "stock or securities" implies a level of liquidity for purposes of the wash-sale rules. By focusing on stock and securities, section 1091(a) prevents taxpayers

136. See Eric D. Chason, *Taxing Losers*, 18 FLA. TAX REV. 541, 575–77 (2016); David M. Schizer, *Scrubbing the Wash Sale Rules*, 4 J. TAX'N FIN. PRODS. 67, 77 (2003).

137. The deduction is simply deferred. See Schizer, *supra* note 136, at 68 ("If Section 1091 applies, it defers the taxpayer's deduction, effectively adding it to the basis of the replacement position."); I.R.C. § 1091(d).

138. I.R.C. § 1091(a).

139. See Chason, *supra* note 136, at 575–77.

140. Two related transactions are worth mentioning. First, if the taxpayer *exchanged* Whiteacre for Blackacre and both were investment property, loss would be deferred under the like-kind exchange rules. See I.R.C. § 1031(a). Second, if the taxpayer formally sold Whiteacre for cash and immediately reacquired it, the loss would almost certainly be denied under the sham-transaction or economic-substance doctrine. Cf. *Knetsch v. United States*, 364 U.S. 361, 366 (1960) (denying deduction from transaction characterized as a "sham" where "there was nothing of substance to be realized by [the taxpayer] from this transaction beyond a tax deduction").

141. "Colored coins" are fractional bitcoin units tied to some asset or right existing outside of the Bitcoin blockchain. See *Colored Coins*, BITCOIN WIKI (May 13, 2020, 1:44), https://en.bitcoin.it/wiki/Colored_Coins [<https://perma.cc/82KD-ZZ9W>].

from recognizing losses that are *easily* realized. It is easy to generate a loss on Peloton stock because it is publicly traded in a liquid market. It is harder to generate a loss on Blackacre.

As written, the wash-sale rules do not defer losses on all fungible, liquid investments. Foreign currency is not a security for purposes of the wash-sale rules.¹⁴² Nor are commodity futures contracts.¹⁴³ These exclusions reflect the statutory language rather than some larger policy. Broadening the wash-sale rules to include all fungible, liquid investments is a project worthy of consideration. This Article, however, focuses on crypto assets and concludes they should be subject to wash-sale rule limitations.

C. Information Returns

I. Returns of Brokers

Section 6045(a) requires brokers to report information regarding customer transactions to the IRS. All reports include the name and address of the customer and the gross proceeds of the transaction;¹⁴⁴ reports for “covered securities” also include the customer’s adjusted basis in the security and whether any gain or loss is long-term or short-term.¹⁴⁵ In November 2021, Congress amended section 6045 to expand such reporting to cover “digital assets,”¹⁴⁶ which “means any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology.”¹⁴⁷ This definition clearly captures most crypto assets as they are a “representation of value.”¹⁴⁸

The amendments treat as a broker “any person who (for consideration) is responsible for regularly providing any service effectuating transfers of

142. See Rev. Rul. 74-218, 1974-1 C.B. 202.

143. See Rev. Rul. 71-568, 1971-2 C.B. 312.

144. See I.R.C. § 6045(a); see also 2022 Form 1099-B, *Proceeds From Broker and Barter Exchange Transactions*, I.R.S., <https://www.irs.gov/pub/irs-pdf/f1099b.pdf> [<https://perma.cc/4MAE-6FL2>].

145. See I.R.C. § 6045(g)(1), (2)(A). Brokers who transfer a covered security to another broker must supply information so that the new broker can comply. See I.R.C. § 6045A(a). Similar requirements apply to the transfer of “digital assets” like cryptocurrency. See Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, § 80603(b), 135 Stat. 429, 1340 (2021) (amending I.R.C. § 6045A by adding § 6045A(d)).

146. § 80603(a), 135 Stat. at 1339–40 (amending I.R.C. § 6045(c)). The amendment is effective January 1, 2024. § 80603(c), 135 Stat. at 1341.

147. § 80603(b), 135 Stat. at 1340.

148. Congress’s use of the term “digital asset” is unfortunate as it historically referred to intellectual property like online images. Cf. *Digital Asset*, WIKIPEDIA, https://en.wikipedia.org/wiki/Digital_asset [<https://perma.cc/UV4F-5JYB>] (last visited Dec. 15, 2022) (“Types of digital assets include, but are not exclusive to: photography, logos, illustrations, animations, audiovisual media, presentations, spreadsheets, digital paintings, word documents, electronic mails, websites, and a multitude of other digital formats and their respective metadata.”).

digital assets on behalf of another person.”¹⁴⁹ The text could logically apply to miners and similar parties who validate transactions and add them to the relevant blockchain for a reward (fee).¹⁵⁰ Miners do not work directly with customers and would not have access to the information required. For Bitcoin, they have access only to the transferor’s pseudonymous address and digital signature.¹⁵¹ Reporting might apply to a variety of other peripheral actors, such as providers of wallets (software and hardware used to store cryptographic information and manage transactions). Early signals suggest that regulations will limit coverage of the reporting obligations.¹⁵²

After the amendment, the treatment of digital (crypto) assets is relatively clear, and the details are instructive for the larger analysis of this Article. As noted above, brokers must report the basis and character of gain or loss when transacting with their customers’ “covered securities.”¹⁵³ This term relies on a subsidiary definition, “specified securities,” which means the following:

- (i) any share of stock in a corporation,
- (ii) any note, bond, debenture, or other evidence of indebtedness,
- (iii) any commodity, or contract or derivative with respect to such commodity, if the Secretary determines that adjusted basis reporting is appropriate for purposes of this subsection,
- (iv) any digital asset, and
- (v) any other financial instrument with respect to which the Secretary determines that adjusted basis reporting is appropriate for purposes of this subsection.¹⁵⁴

Thus, the amendment expressly includes many crypto assets in its definition of securities. Because categories (i) and (ii) rely primarily on legal structures, they rarely capture crypto assets.¹⁵⁵ Later, this Article will argue that Congress should treat crypto (or digital) assets as securities under many

149. § 80603(a), 135 Stat. at 1340.

150. See William Szamosszegi, *How Does the Infrastructure Bill Affect the Mining Industry in the US?*, COINTELEGRAPH (Aug. 29, 2021), <https://cointelegraph.com/news/how-does-the-infrastructure-bill-affect-the-mining-industry-in-the-us> [https://perma.cc/3BYP-5LDT]; Chason, *supra* note 14, at 157–63 (describing the Bitcoin mining process).

151. Cf. generally ANDREAS M. ANTONOPOULOS, *MASTERING BITCOIN* 218–19 (2d ed. 2017) (providing overview of transaction verification steps).

152. See Letter from Jonathan C. Davidson, Assistant Sec’y for Legis. Affs., to [Redacted], U.S. Sen. (Feb. 11, 2022), reprinted in TAX NOTES FED. TODAY (Feb. 15, 2022).

153. See *supra* note 145 and accompanying text.

154. See § 80603(b), 135 Stat. at 1340; I.R.C. § 6045(g)(3)(B).

155. Congress did state, however, that no inference should be drawn regarding the prior classification of digital assets. § 80603(d), 135 Stat. at 1341.

provisions of the Code. The amended information-reporting rules illustrate the feasibility of such a change.

2. *Information with Respect to Foreign Financial Assets*

The Foreign Account Tax Compliance Act (FATCA)¹⁵⁶ requires some U.S. taxpayers to report their financial assets held outside the United States.¹⁵⁷ Section 6038D requires reports from individuals holding “any interest in a specified foreign financial asset . . . if the aggregate value of all such assets exceeds \$50,000.”¹⁵⁸ Specified foreign financial assets include financial accounts maintained by a foreign financial institution, stocks or securities not issued by a U.S. person, and interests in foreign entities.¹⁵⁹ The legal structures described by these terms would seem to exclude direct ownership of most crypto assets.¹⁶⁰

Specified foreign financial assets do, however, include “any financial instrument or contract held for investment that has an issuer or counterparty which is other than a United States person.”¹⁶¹ Neither the Code nor regulations define what a “financial instrument or contract” might be,¹⁶² and the term is nebulous enough that it might cover directly owned crypto assets. Most crypto assets do not, however, have an “issuer or counterparty.” Bitcoin, for example, is created by the underlying software protocol.

156. FATCA is the colloquial name for select provisions of the Hiring Incentives to Restore Employment Act, Pub. L. No. 111-147, §§ 501–62, 124 Stat. 71, 97–118 (2010).

157. *2021 Form 8938, Statement of Specified Foreign Financial Assets*, I.R.S., <https://www.irs.gov/pub/irs-pdf/f8938.pdf> [<https://perma.cc/2JRK-HEMP>].

158. I.R.C. § 6038D(a).

159. See I.R.C. § 6038D(b)(1), (2)(A), (2)(C).

160. Owners who maintain crypto assets at foreign exchanges might be subject to reporting. See Peter Connors, *I.R.S. Hints at Form 8938 Requirements for Reporting Crypto Assets Held at a Foreign Exchange*, ORRICK, <https://blogs.orrick.com/blockchain/irs-hints-at-form-8938-requirements-for-reporting-crypto-assets-held-at-a-foreign-exchange/> [<https://perma.cc/7QGR-TEHK>] (last visited Dec. 15, 2022).

161. I.R.C. § 6038D(b)(2)(B).

162. The regulations do expand upon the statutory list somewhat with the following statement: Examples of assets . . . that may be considered other specified foreign financial assets include, but are not limited to—

- (1) Stock issued by a foreign corporation;
- (2) A capital or profits interest in a foreign partnership;
- (3) A note, bond, debenture, or other form of indebtedness issued by a foreign person;
- (4) An interest in a foreign trust;
- (5) An interest rate swap, currency swap, basis swap, interest rate cap, interest rate floor, commodity swap, equity swap, equity index swap, credit default swap, or similar agreement with a foreign counterparty; and
- (6) Any option or other derivative instrument with respect to any of the items listed as examples in this paragraph or with respect to any currency or commodity that is entered into with a foreign counterparty or issuer.

Treas. Reg. § 1.6038D-3(d) (2014). Clearly, crypto assets are not in the list, but the list is non-exclusive.

This Article proposes targeted reform, the purpose of which is including crypto assets within appropriate definitions of securities found in the Code. Including directly owned crypto assets within FATCA reporting would implicate administrative and privacy concerns that the Article has not considered. Nevertheless, the FATCA definition is notable for our purposes as its open-ended ambiguity could encompass crypto assets.

D. Investment Companies

Taxpayers may make nontaxable transfers of appreciated property to corporations they control.¹⁶³ Without this special provision, found in section 351(a), such transfers would be taxable as exchanges of the appreciated property for shares in the corporation.¹⁶⁴ Section 351(a) allows taxpayers to convert assets from individual to corporate form without the friction of a taxable event.¹⁶⁵

The nonrecognition treatment was not intended to facilitate mere diversification.¹⁶⁶ Imagine, for example, ten business executives who own stock in ten separate companies. They wish to diversify their holdings. Rather than liquidating their stock, they pool their holdings into a new corporation that they all control. Section 351(e)(1) denies the tax benefits in this example because taxpayers cannot claim nonrecognition treatment when they diversify their assets by transferring them to an “investment company.”¹⁶⁷ The Code does not define the term investment company. By regulation, it includes “a corporation more than 80 percent of the value of whose assets (excluding cash and nonconvertible debt obligations from consideration) are held for investment and are readily marketable stocks or securities, or interests in regulated investment companies or real estate investment trusts.”¹⁶⁸ Parallel rules apply if the transfer is to a partnership or limited liability company.¹⁶⁹

163. See I.R.C. § 351(a) (“No gain or loss shall be recognized if property is transferred to a corporation by one or more persons solely in exchange for stock in such corporation and immediately after the exchange such person or persons are in control . . .”).

164. See BORIS I. BITTKER & JAMES S. EUSTICE, FEDERAL INCOME TAXATION OF CORPORATIONS & SHAREHOLDERS ¶ 3.01 (2020) (“[T]he default is to recognize gain or loss on the transaction. The transfer of the property to the corporation is a ‘sale or other disposition’ within the meaning of [I.R.C.] § 1001(a) . . .”).

165. See *id.* (quoting *Portland Oil Co. v. Comm’r*, 109 F.2d 479, 488 (1st Cir. 1940)).

166. See *id.* ¶ 3.15[1].

167. See I.R.C. § 351(e)(1); see also Treas. Reg. § 1.351-1(c)(1)(i) (as amended in 2016) (“The transfer results, directly or indirectly, in diversification of the transferors’ interests . . .”).

168. Treas. Reg. § 1.351-1(c)(1)(ii). Similar rules apply if the transfer is to a regulated investment company or real estate investment trust. See *id.*

169. See I.R.C. § 721(b).

The question for this Article is whether stocks or securities include crypto assets. The Code defines stocks or securities to include a broad range of assets. The most relevant are “(i) money, (ii) stocks and other equity interests in a corporation, evidences of indebtedness . . . (iii) any foreign currency . . . or (viii) any other asset specified in regulations.”¹⁷⁰ Category (ii) would not cover most crypto assets, which do not typically represent an interest in a corporation,¹⁷¹ and the regulations do not cover crypto assets.¹⁷² We are left with two possible categories, “money” and “foreign currency”; these are discussed elsewhere¹⁷³ and probably do not capture crypto assets today. Thus, under current law, crypto assets are probably not stocks or securities for purposes of classifying a corporation or partnership as an investment company.

Nevertheless, crypto assets should be included in the definition of “stocks or securities” for purposes of section 351(a). Similar to before, suppose that ten entrepreneurs wish to pool appreciated investments they received from start-up ventures. Eight of them have stock in corporations; two of them have crypto assets. They contribute their assets to a newly formed limited liability company (LLC), which is taxed as a partnership and subject to the investment-company rules.¹⁷⁴ If each of the ten holdings is equal in value, the contributors have achieved a significant amount of diversification. The LLC is not an investment company because a mere 80% of its value is in stock and securities, whereas the regulations require more than 80%.¹⁷⁵ The ten investors did, however, achieve diversification, and the LLC would operate as a passive investment vehicle.

The investment-company rules should prevent this arrangement but probably do not under current law. As currently defined, stock and securities do not include crypto assets. The IRS could, however, bring crypto assets into the investment-company rules without waiting on an amendment to the Code. In addition to the three specified categories, the term stocks or securities also includes “any other asset specified in regulations.”¹⁷⁶

170. I.R.C. § 351(e)(1)(B).

171. *See supra* Part III.

172. *See, e.g.*, Treas. Reg. 1.351-1(c)(3).

173. *See infra* Sections IV.A–B.

174. *See supra* notes 167–70 and accompanying text.

175. Treas. Reg. § 1.351-1(c)(1)(ii) (“more than 80 percent of the value”).

176. *See* I.R.C. § 351(e)(1)(B)(viii).

E. Code Provisions that Define “Securities” Narrowly

1. Character of Gain and Loss Realized by Dealers in Securities

Broadly speaking, the Code and other authorities distinguish between dealers, traders, and investors in securities.¹⁷⁷ Traders and investors have capital gains and losses when they sell; dealers have ordinary gains and losses. Section 1236 partially codifies this distinction, stating that “[g]ain by a dealer in securities from the sale or exchange of any security shall in no event be considered as gain from the sale or exchange of a capital asset.”¹⁷⁸ Dealers may, however, designate certain holdings as for investment (and not for sale to customers). Such holdings would then be taxed as capital assets.¹⁷⁹

For our purposes, the classification problem is whether a crypto asset is a “security” for purposes of section 1236.

For purposes of [section 1236], the term “security” means any share of stock in any corporation, certificate of stock or interest in any corporation, note, bond, debenture, or evidence of indebtedness, or any evidence of an interest in or right to subscribe to or purchase any of the foregoing.¹⁸⁰

Bitcoin and Ether plainly fall outside of this definition. Neither is backed by any assets, nor do they represent equity or debt in a corporation.¹⁸¹ Notwithstanding the SEC’s assertion that it is a security, the XRP cryptocurrency falls outside this definition as well. XRP is more centralized than either Bitcoin or Ether, as it is issued by a corporation, Ripple Labs, Inc. Moreover, Ripple Labs issued it as part of a project to allow large financial institutions to make payments to each other using XRP. Nevertheless, XRP does not represent an equity or debt interest in Ripple Labs.¹⁸²

It is possible that some crypto assets could fall within the section 1236(c) definition. An issuer might “tokenize” shares in a corporation such that owning a token implies owning a share. An issuer might do this because it

177. See BITTKER & LOKKEN, *supra* note 3, ¶ 47.2.2.

178. I.R.C. § 1236(a).

179. See I.R.C. § 1236(a), (b).

180. I.R.C. § 1236(c); see also Treas. Reg. § 1.1236-1(c)(1) (as amended in 1964) (restating the statutory definition).

181. See Chason, *supra* note 14, at 138 (“Bitcoin is not backed by any identifiable assets or business activities. Owners will never receive dividends, redemptions, or similar distributions.”).

182. See Chris Brummer & Yesha Yadav, *Fintech and the Innovation Trilemma*, 107 GEO. L.J. 235, 277 (2019) (referring to XRP as “a virtual currency [that] enables the transfer of value between banks and financial firms where the traditional system may be too slow, expensive, or unreliable”).

believes tokens transfer more efficiently than actual shares in a corporation.¹⁸³ In this scenario, the token simply represents a “share of stock of [a] corporation” and clearly falls within the section 1236(c) definition. Some DeFi projects are based on credit and lending.¹⁸⁴ If such a project represented debt in a corporation, it could also satisfy the section 1236(c) definition.

2. *Mark-to-Market Taxation for Securities Dealers and Traders*

Normally, the income tax follows the realization doctrine. Merely holding appreciating assets does not result in taxable gain.¹⁸⁵ Tax consequences (or recognition) must wait until the taxpayer sells for cash or exchanges the property.¹⁸⁶ Section 475 deviates from the normal realization requirement by imposing “mark-to-market” taxation on dealers in securities. Under this regime, the dealers must treat the securities as sold for fair market value on an annual basis, reporting the results as ordinary gain or loss.¹⁸⁷ The legislative history indicates congressional concern that the realization doctrine allowed securities dealers to understate their income.

Inventories of securities generally are easily valued at year end, and, in fact, are currently valued at market by securities dealers in determining their income for financial statement purposes The committee believes that [earlier methods] generally understate the income of securities dealers and that the mark-to-market method most clearly reflects their income Consequently, [section 475] generally requires securities dealers to mark their securities inventories to market for Federal income tax purposes.¹⁸⁸

183. See, e.g., Eric D. Chason, *Smart Contracts and the Limits of Computerized Commerce*, 99 NEB. L. REV. 330, 364 (2020) (“Ethereum and other blockchain tokens could conceivably represent ownership in anything (like shares in a corporation).”); João Pedro Quintais, Balázs Bodó, Alexandra Giannopoulou & Valeria Ferrari, *Blockchain and the Law: A Critical Evaluation*, 2 STAN. J. BLOCKCHAIN L. & POL’Y 86, 92 (2019) (“Blockchains could be used to tokenize a number of securities (e.g. company shares, bonds, credits) and trade them against cryptocurrencies.”).

184. See generally CAMPBELL R. HARVEY, ASHWIN RAMACHANDRAN & JOEY SANTORO, *DEFI AND THE FUTURE OF FINANCE* 69–95 (2021) (describing MakerDAO, Compound, and Aave projects under the heading of Credit/Lending).

185. Cf. *Eisner v. Macomber*, 252 U.S. 189, 219 (1920) (holding taxation of a stock dividend to violate Sixteenth Amendment).

186. See *infra* notes 324–30 and accompanying text (describing realization doctrine).

187. See I.R.C. § 475(a)(2).

188. H.R. REP. NO. 103-111, at 661 (1993), as reprinted in 1993 U.S.C.C.A.N. 378, 892.

Securities traders may elect this treatment,¹⁸⁹ as may commodity dealers¹⁹⁰ and traders.¹⁹¹ In broad terms under these provisions, “securities” refers to corporate stock and corporate debt;¹⁹² “commodities” is not so clearly defined but traditionally refers to agricultural products and raw materials.¹⁹³ Later, this Article will discuss whether crypto assets could be commodities for these purposes, especially in light of the CFTC’s expansive jurisdiction over crypto assets.¹⁹⁴

Under section 475(c)(2), security includes some now-familiar arrangements: any “share of stock in a corporation” and any “note, bond, debenture, or other evidence of indebtedness.”¹⁹⁵ Bitcoin, Ethereum, and most crypto assets fall outside of these categories as they are not interests in corporations and are not backed by any external assets.¹⁹⁶ Some new projects like DAOs and DeFi might plausibly be characterized as debt, equity, or a derivative.¹⁹⁷

In addition to corporate equity and debt, section 475 covers any “partnership or beneficial ownership interest in a widely held or publicly traded partnership or trust.”¹⁹⁸ The IRS might plausibly characterize some crypto assets as partnership interests in widely held partnerships. For example, could we view Bitcoin itself as a partnership among various parties maintaining the underlying blockchain? Reaching this conclusion would require deep analysis of not only partnerships but the economic

189. See I.R.C. § 475(f)(1).

190. See I.R.C. § 475(e)(1).

191. See I.R.C. § 475(f)(2); see also *infra* Section IV.D (discussing whether crypto assets should be characterized as commodities for tax purposes).

192. See I.R.C. § 475(c)(2).

193. See *Commodity*, BLACK’S LAW DICTIONARY (11th ed. 2019) (defining a commodity as “[a]n economic good, esp. a raw material or an agricultural product”).

194. See *infra* Section IV.D.

195. I.R.C. § 475(c)(2)(A), (C).

196. See *supra* notes 181–85 and accompanying text.

197. See Yuliya Guseva, *A Conceptual Framework for Digital-Asset Securities: Tokens and Coins as Debt and Equity*, 80 MD. L. REV. 166, 177 (2020) (“Security tokens are digital assets that have security-like characteristics, i.e., those that are the ‘same as or akin to traditional instruments like shares, debentures or units in a collective investment scheme.’”(citation omitted)); M. Todd Henderson & Max Raskin, *A Regulatory Classification of Digital Assets: Toward an Operational Howey Test for Cryptocurrencies, ICOs, and Other Digital Assets*, 2019 COLUM. BUS. L. REV. 443, 457 (noting that an SEC report “declared the sale of shares in a company run by computer code a security offering, even though there were no employees or human issuers of the security other than the code that created the autonomous corporation”); Edmund Mokhtarian & Alexander Lindgren, *Rise of the Crypto Hedge Fund: Operational Issues and Best Practices for an Emergent Investment Industry*, 23 STAN. J.L. BUS. & FIN. 112, 126 (2018) (“More specifically, buying DAO Tokens, would act similarly to ‘buying shares in a company and getting . . . dividends’, because token holders would have the right to vote on, and share in the proceeds of, project proposals.” (citations omitted)); *infra* note 348 and accompanying text.

198. I.R.C. § 475(c)(2)(B).

structure of the relevant crypto assets.¹⁹⁹ To date, though, the IRS has not sought to apply the partnership-tax regime of subchapter K²⁰⁰ to Bitcoin or Ethereum.²⁰¹ Changing course seems unlikely now, especially if the goal is merely to treat the crypto assets as securities under section 475.

Section 475 is mandatory for securities dealers, but it is elective for securities traders, commodities dealers, and commodities traders.²⁰² Whether a taxpayer is a “dealer” or a “trader” in crypto assets turns primarily on the taxpayer’s own activities rather than classification of the asset.²⁰³ For this Article, the important issue is whether a crypto asset is a security or a commodity, and deciding it determines whether dealers have mandatory (securities) or elective (commodities) coverage under section 475. Traders have elective coverage either way. Viewing section 475 in isolation, the tax-policy importance of this distinction is hard to discern. Because there is no discernable reason for special treatment,²⁰⁴ crypto assets under section 475 should be classified as securities under the general classification proposed by this Article.

3. *Worthless Securities*

Taxpayers typically prefer ordinary losses over capital losses.²⁰⁵ Usually, the nature of the asset determines the difference in type of loss because capital assets give rise to capital losses. Somewhat less obviously, capital losses must come about from the “sale or exchange” of the capital asset.²⁰⁶ Seeking ordinary losses, taxpayers might try to dispose of loss assets while avoiding a sale or exchange. Thus, taxpayers with worthless property might try to abandon their property rather than sell it for nominal value.²⁰⁷ Abandoned property would give rise to an ordinary loss, because it was not subject to a sale or exchange. Property sold for nominal value would give rise to a capital loss, which is subject to several limitations.²⁰⁸

199. See generally Carla L. Reyes, *If Rockefeller Were a Coder*, 87 GEO. WASH. L. REV. 373, 391–95 (2019) (analyzing crypto assets as partnerships).

200. I.R.C. §§ 701–77.

201. Cf. David J. Shakow, *Taxing Bitcoin and Blockchains: What the IRS Told Us (and Didn't)*, 166 TAX NOTES FED. 241, 252–53 (Jan. 13, 2020) (discussing “[t]he Bitcoin blockchain as an entity”).

202. See *supra* notes 187–92 and accompanying text.

203. See *infra* Section VII.D.

204. Cf. *infra* Section III.E.4 (arguing that crypto assets should not be treated as securities for purposes of retirement plan distributions).

205. Cf. I.R.C. § 1211 (limiting capital losses).

206. See I.R.C. § 1222(2), (4) (differentiating a “short-term capital loss” from a “long-term capital loss,” but predicating both on the “sale or exchange of a capital asset”).

207. Generally speaking, taxpayers must have a “realization” event before they can claim a loss deduction on an investment asset. The regulations say, “[t]o be allowable as a deduction under section 165(a), a loss must be evidenced by closed and completed transactions, fixed by identifiable events” See Treas. Reg. § 1.165-1(b) (as amended in 1977).

208. See *supra* note 84 and accompanying text.

Section 165(g)(1) curtails such gamesmanship with respect to securities. “If any security which is a capital asset becomes worthless during the taxable year, the loss resulting therefrom shall, for purposes of this subtitle, be treated as a loss from the sale or exchange, on the last day of the taxable year, of a capital asset.”²⁰⁹ The rule applies only to securities, which section 165(g)(2) defines primarily as corporate equity or debt: “a share of stock in a corporation”; “a right to subscribe for, or to receive, a share of stock in a corporation”; or “a bond, debenture, note, or certificate, or other evidence of indebtedness, issued by a corporation”²¹⁰ As discussed previously in this Section, crypto assets fall outside such definitions because the definitions refer only to corporate equity and debt.

4. Retirement-Plan Distributions

Typically, retirement-plan distributions are fully taxable to the employee or other distributee.²¹¹ A special provision defers tax for certain distributions relating to “securities of the employer.”²¹² For this purpose, “securities” includes “only shares of stock and bonds or debentures issued by a corporation with interest coupons or in registered form,” and “securities of the employer” includes “securities of a parent or subsidiary corporation . . . of the employer corporation.”²¹³ Because the securities must be issued by a corporation, most crypto assets would fall outside of the provision.²¹⁴

The special provision uses tax incentives to support retirement policy and employee ownership.²¹⁵ This Article does not advocate for any amendment to include crypto assets within this special provision. The issue is primarily one of retirement policy, not principles of taxation. There is a threshold question of whether crypto assets are even suitable investments for retirement plans.²¹⁶ Regardless of this question, special subsidies should not apply to incentivize retirement-plan investments in crypto assets. While this narrow point should be clear, it does illustrate a larger lesson in

209. I.R.C. § 165(g)(1).

210. I.R.C. § 165(g)(2). The definition also covers indebtedness issued “by a government or political subdivision thereof.” § 165(g)(2)(C). The expansion beyond corporate debt and equity does not bring crypto assets within the definition.

211. See I.R.C. § 402(a).

212. See I.R.C. § 402(e)(4)(A), (B).

213. I.R.C. § 402(e)(4)(E).

214. See *supra* notes 181–85 and accompanying text.

215. Cf. generally Ezra S. Field, *Money for Nothing and Leverage for Free: The Politics and History of the Leveraged ESOP Tax Subsidy*, 97 COLUM. L. REV. 740, 741 n.7 (1997) (describing history of “employee capitalism”).

216. See Edward A. Zelinsky, *Is Bitcoin Prudent? Is Art Diversified? Offering Alternative Investments to 401(k) Participants*, 54 CONN. L. REV. 509, 513 (2022).

classifying crypto assets under the Code: Congress and the IRS cannot simply enact a blanket rule that classifies all crypto assets in a particular way (e.g., crypto assets are securities).

5. *Partnership Distributions of Marketable Securities*

Without diving too deeply into the world of taxing partnership distributions, we can note a couple of general principles. Distributions of “property” are generally not taxable; distributions of “money” may be.²¹⁷ We can satisfy the needs of this Article by noting that property distributions usually have a better tax treatment from the perspective of the distributee.

Distributions of “marketable securities,” however, are taxed like distributions of “money.”²¹⁸ This special rule, appearing in section 731(c), was designed to curtail abusive transactions in which taxpayers used partnership structures to exchange appreciated assets (like real property) for marketable securities on a tax-deferred basis.²¹⁹ The legislative history notes:

Concern has arisen that taxpayers can exchange interests in appreciated assets for marketable securities while deferring or avoiding tax on the appreciation, by using the present-law rules relating to partnership distributions. The present-law rules permit a partner to exchange, tax-free, his share of appreciated partnership assets for an increased share of the partnership's marketable securities. This transaction is the virtual economic equivalent of a sale of a partner's share of the partnership's assets. If the taxpayer were to exchange an interest in an appreciated asset for cash, he generally would recognize gain on the appreciated asset; yet if the taxpayer receives a partnership distribution of marketable securities, which are nearly as easily valued and as liquid as cash, he can avoid gain recognition.²²⁰

These concerns could well extend to crypto assets, which have become more mainstream investment vehicles in recent years.²²¹ Absent amendments to section 731(c), taxpayers might be able to use partnership structures to exchange appreciated property for crypto assets. Such

217. See I.R.C. § 731(a)(1); Treas. Reg. § 1.731-1(a)(1)(i) (1960).

218. See I.R.C. § 731(c); Phillip Gall & David R. Franklin, *Partnership Distributions of Marketable Securities*, 117 TAX NOTES 687, 687 (Nov. 12, 2007).

219. See Gall & Franklin, *supra* note 218, at 690–91; H.R. REP. NO. 103-826, pt. 1, at 187–88 (1994), as reprinted in 1994 U.S.C.C.A.N. 3773, 3959–60.

220. H.R. REP. NO. 103-826, pt. 1, at 187.

221. See Saule T. Omarova, *New Tech v. New Deal: Fintech as a Systemic Phenomenon*, 36 YALE J. ON REGUL. 735, 737 (2019) (“[V]olatile cryptocurrencies are becoming a mainstream trading asset . . .”).

exchanges are not allowed directly²²² and presumably should not be allowed indirectly via a partnership. Thus, reforms should include crypto assets within the definition of “marketable securities.”²²³

Under section 731(c), the term “marketable securities” means “financial instruments and foreign currencies which are . . . actively traded”²²⁴ Financial instruments, in turn, “include[] stocks and other equity interests, evidences of indebtedness, options, forward or futures contracts, notional principal contracts, and derivatives.”²²⁵ In brief, financial instruments include equity, debt, and derivatives, and most crypto assets would fail this definition of financial instrument.²²⁶ As seen elsewhere, the definition of securities does not mechanically include crypto assets, but tax-policy concerns argue in favor of inclusion.

IV. CATEGORIES BEYOND SECURITIES

A. Money

The Financial Crimes Enforcement Network (FinCEN) and numerous federal courts have classified Bitcoin as “money” for the non-tax purpose of enforcing currency-reporting and anti-money-laundering statutes.²²⁷ FinCEN’s mission is to “safeguard the financial system from illicit use, combat money laundering and its related crimes including terrorism, and promote national security through the strategic use of financial authorities and the collection, analysis, and dissemination of financial intelligence.”²²⁸ IRS Notice 2014-21, however, treats Bitcoin as “property.”²²⁹ Because FinCEN’s mission differs from the IRS’s, its classification should not be dispositive (or even relevant) under the Code.

Under the Code, money and property differ because of basis. Taxpayers need to track the basis of property so they can determine gain or loss upon

222. See *infra* Part VI (discussing like-kind exchanges and the realization doctrine).

223. See *infra* Section IV.A (discussing whether crypto assets are “money”).

224. I.R.C. § 731(c)(2)(A). A secondary definition of marketable securities includes some financial instruments that are not actively traded. For example, marketable securities includes “any financial instrument which, pursuant to its terms or any other arrangement, is readily convertible into, or exchangeable for, money or marketable securities.” I.R.C. § 731(c)(2)(B)(ii). Thus, an untraded forward contract to purchase marketable securities could itself be a marketable security.

225. I.R.C. § 731(c)(2)(C).

226. See *supra* notes 181–85, 195–97 and accompanying text.

227. See, e.g., *United States v. Harmon*, 474 F. Supp. 3d 76, 90 (D.D.C. 2020) (citing cases and describing the weight of authority as “overwhelming”).

228. See *Mission*, FIN. CRIMES ENF’T NETWORK, <https://www.fincen.gov/index.php/about/mission> [<https://perma.cc/U294-BCJ6>] (last visited Dec. 15, 2022).

229. See *supra* note 3 and accompanying text.

disposition.²³⁰ Money, however, does not take a basis because it has stable value. By definition, \$200 of money will not give rise to gain or loss when A later spends it because it is always worth \$200.

The like-kind exchange provisions reinforce this distinction between money and property under the Code. These provisions apply when taxpayers exchange real property for real property but contain special rules for taxpayers who receive “other property or money.”²³¹ Following a like-kind exchange, taxpayers must determine their basis in their newly held property.²³² The following example illustrates the distinction between money and property in a like-kind exchange. In it, A and B make a like-kind exchange of trucks (property).²³³ Because the values of the trucks are not the same, B gives A extra cash to make up for the difference.

A, an individual in the moving and storage business, in 1954 transfers one of his moving trucks with an adjusted basis in his hands of \$2,500 to B in exchange for a truck (to be used in A’s business) with a fair market value of \$2,400 and \$200 in cash. A realizes a gain of \$100 upon the exchange, all of which is recognized under section 1031(b). The basis of the truck acquired by A is determined as follows:

Adjusted basis of A’s former truck	\$2,500	
Less: Amount of money received	\$200	
Difference	\$2,300	
Plus: Amount of gain recognized	\$100	
Basis of truck acquired by A	\$2,400	²³⁴

The example clearly specifies A’s basis in the truck received and even uses the “money received” in the calculation. It makes no mention, however, of any basis in that money (cash).

The reason is simple. Cash (or money) is the yardstick of the tax system and does not need a basis.²³⁵ Cash, or currency, is the epitome of money. For purposes of administrability, the tax system treats checks as being worth

230. See I.R.C. § 1001(a) (calculating gain or loss by reference to adjusted basis).

231. See I.R.C. § 1031(b); see also Treas. Reg. § 1.1031(b)-1(a) (as amended in 1967) (explaining the differential treatment of gains or losses “[i]f the taxpayer receives other property (in addition to property permitted to be received without recognition of gain) or money”).

232. The regulations state that “the basis of the property acquired [in a like-kind exchange] is the basis of the property transferred . . . decreased by the amount of money received and increased by the amount of gain recognized on the exchange.” Treas. Reg. § 1.1031(d)-1(b) (as amended in 1967).

233. The example is drawn from a time when taxpayers could engage in like-kind exchanges of personal property. *But cf. infra* notes 304–07 and accompanying text (describing 2017 changes to like-kind exchanges).

234. Treas. Reg. § 1.1031(d)-1(b) (example).

235. *Cf.* Paul Carman, *A Systematic Approach to the Classification of Cryptocurrency*, 172 TAX NOTES FED. 2131, 2139–40 (Sept. 27, 2021) (referring to cash, checks, or the equivalent).

their stated amount in cash.²³⁶ In contrast, many crypto assets fluctuate wildly in value, needing a basis to measure gain or loss. Volatile crypto assets should not be treated as money for tax purposes. If, in the example, A received \$200 of Bitcoin instead of cash, A would need to assign it a basis because the Bitcoin would likely be worth a different value when A disposes of it.²³⁷

Some crypto assets, known as stablecoins, are pegged to the U.S. dollar.²³⁸ While the IRS should be open to classifying stablecoins as “money,” doing so involves two delicate issues. First, the IRS would need to examine the stability mechanisms that peg the stablecoin to the dollar. The Tether stablecoin relies on bank accounts that are easy to interpret but have proven hard to verify. The DAI stablecoin relies on smart contracts that, while easy to verify, can be hard to interpret.²³⁹ Second, classifying stablecoins as “money” might implicate financial regulation, perhaps signaling to market participants that the U.S. government would support recognized stablecoins if they declined in value.²⁴⁰ Absent a thorough evaluation of stablecoins and their role in non-tax policy, they should not be treated as “money” for tax purposes.²⁴¹

B. Foreign Currency

Foreign currency is a form of property for U.S. tax purposes.²⁴² Classification as a currency would trigger a set of specialized rules that differ from those that apply to investment assets. Perhaps most importantly, individuals with personal transactions in foreign currency may exclude up to \$200 of resulting gain.²⁴³ The purpose of this exclusion is to spare vacationers and the like from paying tax on de minimis gain from their

236. See, e.g., *Kahler v. Comm’r*, 18 T.C. 31, 35 (1952) (holding that receipt of year-end check would be taxed the same as cash).

237. Its initial basis would be “its fair market value at the date of the exchange” or \$200. See I.R.C. § 1031(d).

238. See *supra* Section I.F.

239. See generally Marco Dell’Erba, *Stablecoins in Cryptoeconomics: From Initial Coin Offerings to Central Bank Digital Currencies*, 22 N.Y.U. J. LEGIS. & PUB. POL’Y 1, 10–15 (2019) (comparing stability mechanisms of Tether, DAI, and other stablecoins).

240. Cf. PWG REPORT, *supra* note 64, at 14–15 (describing systemic risk from stablecoins).

241. Some rules apply to “securities” and “money” in the same fashion. I.R.C. § 731(c), discussed in Section III.E.5, treats marketable securities as money when taxing certain partnership distributions. This parallel treatment is fully consistent with the recommendation that crypto assets be characterized as securities and not money. For example, current law treats stock in a publicly traded corporation as money under I.R.C. § 731(c). That being said, such stock is not generally treated as money.

242. See BITTKER & LOKKEN, *supra* note 3, at ¶ 74.7.1 (“A nonfunctional currency is treated as property other than money, having a basis (usually cost) in the functional currency, and gain or loss on its disposition is exchange gain or loss.”).

243. See I.R.C. § 988(e)(2)(b).

foreign currency holdings.²⁴⁴ The exclusion is not available for crypto assets because they are not “currency” under IRS Notice 2014-21. As a result, owners must calculate gain or loss every time they use crypto assets to buy or sell goods and services.²⁴⁵ Crypto advocates have long pushed for an expansion of the exclusion to cover crypto assets,²⁴⁶ and variations have made their way into recently proposed legislation.²⁴⁷ Expanding the exclusion would simplify the use of crypto assets for day-to-day purchases as users would not need to calculate any tax consequences.²⁴⁸

As applied to foreign-currency transactions, the exclusion would rarely produce a significant windfall. Most foreign currencies are relatively stable against the U.S. dollar, giving rise to a relatively small amount of potential gain on foreign currency.²⁴⁹ Crypto assets, however, have enormous volatility. Some, like Bitcoin, have enjoyed massive appreciation against the dollar in recent years. Furthermore, holdings of crypto assets by U.S. individuals have skyrocketed in recent years. Bringing crypto assets into the exclusion would be a massive expansion of its current application.

The exclusion appears to apply on a *per-transaction* basis, further undermining its usability for crypto assets. Section 988(e)(2) says, “[t]he [exclusion] shall not apply if the gain which would otherwise be recognized on the transaction exceeds \$200.”²⁵⁰ Suppose A was an early Bitcoin miner and holds 100 BTC with a basis of zero.²⁵¹ In early February 2022, A’s holdings are worth roughly \$4.2 million.²⁵² So long as Bitcoin does not decline, A has plenty of assets to live comfortably for the rest of her life. If the section 988(e)(2) exclusion were available to her on a per-transaction basis, she would have a strong incentive to structure her living expenses in payments of Bitcoin worth \$200 or less. For example, if she paid monthly rent of \$6,000 using Bitcoin, she would recognize gain of \$6,000 upon each payment. This result is appropriate as she is realizing previously untaxed gain. In contrast, a literal application of the exclusion would induce her to

244. *Cf.* Treas. Reg. § 1.988-1(a)(9)(ii) (as amended in 2016) (Example 2) (describing tax consequences for a hypothetical vacationer to the United Kingdom).

245. *See* I.R.S. Notice 2014-21, *supra* note 1, at 939, Q&A 6.

246. *See, e.g.*, Jerry Brito, *Reps. Polis & Schweikert Introduce Cryptocurrency Tax Fairness Act in Congress*, COIN CTR. (Sept. 7, 2017), <https://www.coincenter.org/rep-polis-schweikert-introduce-cryptocurrency-tax-fairness-act-in-congress/> [<https://perma.cc/7E3R-SPCR>].

247. *See* Virtual Currency Tax Fairness Act of 2022, H.R. 6582, 117th Cong. § 2(a) (2022).

248. *See* Brito, *supra* note 246.

249. *See* Chodorow, *supra* note 17, at 391–92.

250. I.R.C. § 988(e)(2).

251. The earliest mining reward was 50 BTC. So, A would need to have won only two. By one report, Satoshi Nakamoto mined more than 1 million BTC. *See The Satoshi Fortune*, WHALE ALERT (July 20, 2020), <https://whale-alert.medium.com/the-satoshi-fortune-e49cf73f9a9b> [<https://perma.cc/92EN-BHNNH>].

252. *Cf. supra* note 35 and accompanying text (estimating an early February 2022 price of \$42,000 per unit).

negotiate daily rent of \$200, payable in Bitcoin. Under the renegotiated rental, A would not recognize any gain.

In June 2021, El Salvador classified Bitcoin as legal tender.²⁵³ To date, this move has not prompted the IRS to reclassify Bitcoin as “currency” rather than “property.” At some point, the IRS may need to do so, particularly if individuals and businesses use Bitcoin for day-to-day transactions more commonly in El Salvador. Professor Adam Chodorow predicted, in 2016, that some future country would recognize Bitcoin as legal tender.²⁵⁴ Nevertheless, Professor Chodorow urged that such recognition should not convert Bitcoin into foreign currency for U.S. tax purposes because, unlike all other foreign currencies, Bitcoin is not *issued* by a foreign government.²⁵⁵

Recognition of Bitcoin as foreign currency would also create a huge tax schism among crypto assets. Bitcoin would be taxed under very different principles from Ether and other large cryptocurrencies. The differences would not further sound policy but rather extend a tax windfall to successful Bitcoin investors. Unless economic usage truly differs, crypto assets should generally be taxed on a similar basis. Thus, Bitcoin and other crypto assets should not be classified as foreign currency.

C. Actively Traded Personal Property

1. Straddles

Derivative contracts derive their value from other assets. Forward contracts are perhaps the simplest derivative. They are simply executory contracts in which one party commits to buy, and the other party commits to sell, property at a fixed price and time in the future.²⁵⁶ Such an arrangement could be used to speculate on price movements in the future. If I think gold will fall in value, I could speculate by entering a forward contract to sell gold at a fixed price.²⁵⁷ The other party might be speculating in the opposite direction, hoping to profit on an expected increase in gold prices. Quite possibly, neither of us could be interested in owning gold.

Market participants can enter into multiple derivative contracts in order to increase or decrease their overall exposure to the underlying assets (e.g., gold in our example). Furthermore, separately risky contracts might

253. See Sarah Paez, *El Salvador Makes Bitcoin Legal Tender*, 171 TAX NOTES FED. 1830 (June 14, 2021).

254. Cf. Chodorow, *supra* note 17, at 382 (“It seems only a matter of time before some country somewhere, perhaps a tax haven, declares Bitcoin to be legal tender.”).

255. See *id.* at 381–84.

256. See JOHN C. HULL, *OPTIONS, FUTURES AND OTHER DERIVATIVES* 6 (10th ed. 2018).

257. See *id.* at 14 (describing how speculators use futures contracts).

combine to have little or no risk. Suppose that I enter into two forward contracts. In one, A and I agree that I will buy gold in eighteen months. In the other, B and I agree that I will sell gold in eighteen months. So long as A and B are creditworthy, nothing has happened to me economically. Vis-à-vis A, I am “long,” profiting if gold rises in price; vis-à-vis B, I am “short,” profiting if gold falls in price. The two contracts seemingly offset.²⁵⁸

From a tax perspective, though, I might use such offsetting contracts to my advantage. Suppose that gold rises in price eleven months from now. The B contract becomes a liability to me, and I pay B an amount to settle my obligations. I then take a deduction for this payment as loss. The A contract becomes an asset, but I do nothing to realize the appreciation at the eleven-month point. I might even buy the gold when the A contract matures and defer my gain indefinitely.

Under the Code, the A and B contracts combine to make a “straddle,” and section 1092(a) limits my ability to deduct losses in such straddles. In the example, I could not deduct the eleven-month loss on the B contract if it is offset by unrecognized gain in the A contract.²⁵⁹ To be more precise, section 1092(a)(1)(A) denies a deduction on a “position” if there is unrecognized gain on an “offsetting position.”²⁶⁰ An offsetting position results where the taxpayer has “a substantial diminution of the . . . risk of loss”²⁶¹

The hook for crypto assets comes from the definition of a “position,” which means “an interest (including a futures or forward contract or option) in personal property”²⁶² so long as the personal property is “of a type which is actively traded.”²⁶³ Under the regulations, “[a]ctively traded personal property includes any personal property for which there is an established financial market.”²⁶⁴ Crypto assets are clearly “personal property” under IRS Notice 2014-21.²⁶⁵ Thus, they are subject to the straddle rules if they transact on an “established financial market.” The regulations provide examples of established financial markets in more traditional contexts.²⁶⁶ Large crypto assets, like Bitcoin and Ether, have markets that surely qualify as established. Smaller crypto assets probably do not.

258. *Cf. id.* at 6 (comparing long and short positions).

259. *See* I.R.C. § 1092(a)(1)(A).

260. *Id.*

261. *See* I.R.C. § 1092(c)(2)(A).

262. I.R.C. § 1092(d)(2).

263. I.R.C. § 1092(d)(1).

264. Treas. Reg. § 1.1092(d)-1(a) (as amended in 2014).

265. *See* I.R.S. Notice 2014-21, *supra* note 1, at 938, Q&A 1.

266. *See, e.g.*, Treas. Reg. § 1.1092(d)-1(b)(1)(i) (referring to a “national securities exchange that is registered under section 6 of the Securities Exchange Act of 1934 (15 U.S.C. 78f)”).

2. *Passive Activity Loss Limitations*

Actively traded personal property also makes an appearance in section 469, which limits the deductibility of business losses incurred by taxpayers who do not materially participate in the business. More precisely, section 469 targets any “passive activity,” meaning “any activity . . . which involves the conduct of any trade or business, and . . . in which the taxpayer does not materially participate.”²⁶⁷ If the oxymoronic “passive activity” is confusing, note that it means a business in which the taxpayer does not materially participate.

Congress enacted these limits because taxpayers could otherwise seek out businesses that generate tax losses, become passive owners in them, and claim a share of the losses as their own without economic cost. Before Congress acted, passive activity losses were mainstays of tax-shelter activity.²⁶⁸ Section 469 does not prohibit such losses completely. Taxpayers may use losses from passive activities to offset income from them.²⁶⁹ As a result, taxpayers with passive activity losses cannot use those losses unless they have passive activity income. Conceptually, we can think of passive activity income and loss as constituting a “basket” covering business activities (trade or business) in which the taxpayer did not materially participate.²⁷⁰ Losses in the basket do reduce income in the basket, but net losses from the basket cannot be deducted against income in the basket.

Investment income—seemingly the epitome of *passive income*—is outside the basket. The basket captures *business activities*, and mere investors are not engaged in a trade or business for tax purposes.²⁷¹ Within sufficient activity, however, investors can become active traders who are considered to be engaged in a trade or business. Nevertheless, special rules keep trading gains out of the passive-activity basket because they are closer to portfolio income than true business income.²⁷² Under the regulations, the “activity of trading personal property” is not a passive activity, even if it is

267. I.R.C. § 469(c)(1).

268. See Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227, 255 (2010).

269. I.R.C. § 469(d)(1).

270. See Leandra Lederman, *A Tisket, A Tasket: Basketing and Corporate Tax Shelters*, 88 WASH. U. L. REV. 557, 559–60 (2011) (“Basketing generally restricts individuals’ ability to deduct passive or investment-type expenses and losses from active-type income, but not vice versa . . . [T]hey can deduct so-called ‘passive activity losses’ only from passive income gains, not from other income (such as salary).” (footnotes omitted)).

271. See *Higgins v. Comm’r*, 312 U.S. 212, 218 (1941).

272. See T.D. 8175, 1988-1 C.B. 191, 194 (1988) (“In some circumstances, the activity of trading personal property (such as securities or commodities or other property of a type that is actively traded) for one’s own account has been treated as a trade or business. Even in those circumstances, however, the income or loss from the activity resembles portfolio income or loss in that it results entirely from the holding and sale of personal property.”).

a trade or business in which the taxpayer does not materially participate.²⁷³ These regulations look to the straddle rules dealing with actively traded personal property.²⁷⁴

3. *Application to Crypto Assets*

Of the present-law categories considered in this Article, actively traded personal property presents perhaps the best fit for crypto assets. According to Notice 2014-21, crypto assets are considered property, and they are certainly intangible and personal in nature. Many crypto assets will be actively traded on an established exchange. Such crypto assets would be actively traded personal property under sections 1092 (dealing with straddles) and 469 (dealing with passive active losses). As described below, this category could serve as the basis for law reform efforts, treating actively traded crypto assets as securities for purposes of the Code.²⁷⁵

D. *Commodities*

As discussed above, section 475(a) requires dealers in securities to pay tax on a “mark-to-market basis.”²⁷⁶ Traders in securities may elect into this regime. Like traders in securities, dealers and traders in commodities may also elect mark-to-market taxation.²⁷⁷ For traders, the classification of crypto assets as “securities” or “commodities” does not matter, because mark-to-market taxation is elective regardless. The classification does matter, however, to dealers, because mark-to-market taxation is mandatory for securities dealers but elective for commodities dealers.

Somewhat unhelpfully, section 475(e)(2)(A) says that a commodity means “any commodity which is actively traded (within the meaning of section 1092(d)(1)).”²⁷⁸ “Commodity” just means “commodity” other than one not actively traded. We have already discussed the meaning of “actively traded” in connection with the straddle rules.²⁷⁹ Two interpretations might preclude finding that a crypto asset is a commodity.

First, the legislative history indicates that “commodities for purposes of the provision would include only commodities of a kind customarily dealt

273. See Temp. Treas. Reg. § 1.469-1T(e)(6)(i) (as amended in 2002).

274. See Temp. Treas. Reg. § 1.469-1T(e)(6)(ii) (“[T]he term ‘personal property’ means personal property (within the meaning of section 1092(d)”); I.R.C. § 1092(d)(1) (“The term ‘personal property’ means any personal property of a type which is actively traded.”).

275. See *infra* Section VII.A.

276. See *supra* Section III.E.2.

277. See I.R.C. § 475(e)(1), (f)(1)(A).

278. I.R.C. § 475(e)(2)(A).

279. See *supra* Section IV.C.1.

in on an organized commodities exchange.”²⁸⁰ This statement could arguably exclude crypto assets from the definition of commodities by tying commodity status to the time the statute was enacted.²⁸¹ Second, according to some sources, the term commodity implies a tangible asset. Black’s Law Dictionary offers two definitions: “1. An article of trade or commerce. The term embraces *only tangible goods*, such as products or merchandise, as distinguished from services. 2. An economic good, esp. a raw material or an agricultural product.”²⁸² Similarly, regulations elsewhere in the Code define commodity to mean “tangible personal property of a kind that is actively traded or with respect to which contractual interests are actively traded.”²⁸³

Regulations promulgated by the CFTC take a much broader view of the term. It includes virtually every imaginable agricultural product (except for onions!).²⁸⁴ More importantly, the CFTC definition of commodities also includes “all services, rights and interests . . . in which contracts for future delivery are presently or in the future dealt in.”²⁸⁵ Thus, the regulation allows the CFTC to regulate a broad range of futures contracts on commodities.²⁸⁶ The CFTC has asserted that Bitcoin and Ether are commodities,²⁸⁷ and courts have validated this jurisdiction.²⁸⁸

Because of these differing interpretations, it remains unclear whether crypto assets are commodities for purposes of section 475. On the one hand, the legislative history suggests a historical review, treating property as a commodity only if “customarily” traded on a commodities exchange. Arguably, commodity treatment should extend only to tangible property. The CFTC, in contrast, has successfully asserted that Bitcoin and Ether are commodities.²⁸⁹

280. H.R. REP. NO. 105-220, at 515 (1997) (Conf. Rep.), as reprinted in 1997 U.S.C.C.A.N. 1129, 1129.

281. Cf. *supra* notes 128–30 and accompanying text (discussing exclusion of options under the wash-sale rules in light of their short trading history).

282. See *Commodity*, BLACK’S LAW DICTIONARY (11th ed. 2019) (emphasis added).

283. Treas. Reg. § 1.954-2(f)(2)(i) (as amended in 2020).

284. See 17 C.F.R. § 1.3 (2021) (defining commodity). In 1958, Congress passed the Onion Futures Act, which outlawed futures contracts on onions. Act of Aug. 28, 1958, Pub. L. No. 85-839, 72 Stat. 1013 (1958) (codified as amended at 7 U.S.C. § 13-1).

285. 17 C.F.R. § 1.3 (defining commodity).

286. The CFTC has “exclusive jurisdiction . . . with respect to . . . transactions involving swaps or contracts of sale of a commodity for future delivery . . .” 7 U.S.C. § 2(a)(1)(A).

287. See CFTC, BITCOIN BASICS, https://www.cftc.gov/sites/default/files/2019-12/oceo_bitcoinbasics0218.pdf [<https://perma.cc/7H6M-S664>]; Press Release, CFTC, Chairman Tarbert Comments on Cryptocurrency Regulation at Yahoo! Finance All Markets Summit (Oct. 10, 2019), <https://www.cftc.gov/PressRoom/PressReleases/8051-19> [<https://perma.cc/QLZ9-VDPQ>].

288. See *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018); *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492, 498 (D. Mass. 2018).

289. See *McDonnell*, 287 F. Supp. 3d at 228; *My Big Coin Pay*, 334 F. Supp. 3d at 498.

Other provisions in the Code are also mixed or ambiguous in classifying crypto assets as commodities. Section 7704(a) generally treats publicly traded partnerships as corporations but exempts partnerships with a large amount of “qualifying income.” Qualifying income, for this purpose, includes “income and gains from commodities . . . or futures, forwards, and options with respect to commodities.”²⁹⁰ Beyond that statement, there is no further definition. Section 864(b) contains a series of exclusions relevant to the source of income (foreign vs. U.S.). One of the exclusions applies to trading in commodities.²⁹¹ Interpreting this provision, the IRS said, “[t]he word ‘commodities’ is used in section 864(b)(2)(B) of the Code in its ordinary financial sense and includes all products that are traded in and listed on commodity exchanges located in the United States. Furthermore, the word ‘commodities’ includes the actual commodity and commodity futures contracts.”²⁹² Presumably, the reference to commodity exchanges would capture those crypto assets within the CFTC’s jurisdiction.

On the other hand, regulations under section 954 seemingly exclude crypto assets from the definition of a commodity. Under the regulation, “the term commodity includes tangible personal property of a kind that is actively traded or with respect to which contractual interests are actively traded.”²⁹³ The word “includes” might suggest that the definition could cover intangible property.

V. THE SUPERIORITY OF THE SECURITIES CLASSIFICATION

Relatively few crypto assets would be classified as securities under the Code because most of the tax definitions rely on a finding that the asset is equity or debt in a corporation. Generally speaking, crypto assets are neither. DAOs and DeFi projects might be characterized as equity and debt in a corporation under such definitions. Because Bitcoin, Ether, and other large crypto assets would not,²⁹⁴ they fall outside the many provisions that apply special treatment to securities.

Looking beyond the language of the Code, following non-tax designations would import problems that have little to do with tax policy. At present, Bitcoin’s and Ether’s non-tax treatment is relatively clear: the CFTC and the SEC view them as commodities.²⁹⁵ The SEC has suggested,

290. I.R.C. § 7704(d)(1)(G).

291. See I.R.C. § 864(b)(2)(B); Treas. Reg. § 1.864-2(d) (as amended in 1975).

292. Rev. Rul. 73-158, 1973-1 C.B. 337.

293. Treas. Reg. § 1.954-2(f)(2)(i) (as amended in 2020).

294. See *supra* notes 181–81 and accompanying text.

295. Compare *supra* notes 287–88 and accompanying text (noting current treatment of Ether as a commodity), with Hinman, *supra* note 114, (“And putting aside the fundraising that accompanied the creation of Ether, based on my understanding of the present state of Ether, the Ethereum network and its decentralized structure, current offers and sales of Ether are not securities transactions.”).

however, that Ether should have been classified as a security upon inception and that it only later evolved into a commodity.²⁹⁶ Depending upon the outcome of *SEC v. Ripple Labs*, a similar evolution might occur with respect to XRP.²⁹⁷

Current law and regulatory classifications do no better when classifying crypto assets as commodities for tax purposes. The strongest argument in favor of this classification is the fact that the CFTC has exerted jurisdiction over Bitcoin and Ether. To be sure, they are the two largest cryptocurrencies. Nevertheless, it is unclear whether the CFTC could exert jurisdiction over crypto assets in general.²⁹⁸ Deferring to the CFTC would also require taxpayers and authorities to navigate the intersection between CFTC and SEC jurisdiction. While the CFTC has exerted jurisdiction over Bitcoin and Ether, the SEC has claimed jurisdiction over XRP. For countless other crypto assets, it could be unclear where jurisdiction lies. Indeed, some observers have detected the beginning of a turf war between the SEC and the CFTC on whether crypto assets should generally be regulated as securities or commodities.²⁹⁹

Even if the non-tax designations were relatively clear, they could lead to different taxation of similar assets. Bitcoin, Ether, and XRP have different regulators, but this fact offers no obvious basis for different tax treatments. For example, SEC enforcement actions should not affect the tax consequences of XRP transactions. If they did, the tax consequences might change when the SEC brought the action and later if the SEC lost in court.³⁰⁰ Thus, relying on non-tax regulators would lead to an ambiguous or changing tax status. Many crypto assets could even have no status if neither the SEC nor the CFTC asserts jurisdiction.

Despite these difficulties, the tax policies involved usually point toward classifying crypto assets as securities under the Code. The wash-sale rules

296. See Hinman, *supra* note 114 (“And putting aside the fundraising that accompanied the creation of Ether, based on my understanding of the present state of Ether, the Ethereum network and its decentralized structure, current offers and sales of Ether are not securities transactions.”).

297. Cf. *supra* note 113 and accompanying text (describing SEC’s claims with respect to Ripple Labs and the XRP crypto asset).

298. See generally *supra* notes 284–88 and accompanying text (summarizing CFTC’s jurisdiction over crypto assets).

299. See *At Senate Hearing, CFTC Chair Behnam Steps Up Battle with SEC for Crypto Oversight*, PYMNTS (Feb. 10, 2022), <https://www.pymnts.com/cryptocurrency/2022/at-senate-hearing-cftc-chair-behnam-steps-up-battle-with-sec-for-crypto-oversight/> [<https://perma.cc/VJ38-SG5T>]; see also Gary Gensler, Chair, SEC, Remarks Before the Aspen Security Forum (Aug. 3, 2021), <https://www.sec.gov/news/public-statement/gensler-aspen-security-forum-2021-08-03> [<https://perma.cc/EFM4-UJ6C>] (discussing extent to which crypto assets are securities).

300. Ripple Labs appears to be intent on defending the SEC enforcement action in court. See Dave Michaels, *Ripple’s Legal Brawl with SEC Could Help Settle When Cryptocurrencies Are Securities*, WALL ST. J. (Feb. 2, 2022, 7:23 AM), <https://www.wsj.com/articles/crypto-industry-hopes-looming-legal-brawl-will-thwart-secs-regulation-push-11643724002> [<https://perma.cc/35KU-7RXZ>].

present a compelling policy argument. They prevent taxpayers from artificially harvesting their losses on securities by selling and repurchasing them in closely timed transactions. To deduct a loss on securities, taxpayers must have some economic change, waiting more than thirty days before replacing securities sold at a loss.³⁰¹ Reflecting on the purposes of the wash-sale rules, this Article concludes that they should apply to liquid, fungible assets. It reached a similar conclusion for other (but not all) provisions using the term securities.

Categorizing crypto assets as commodities would not achieve these tax policy goals. For example, the wash-sale rules would not cover crypto assets if classified as commodities.³⁰² Other special provisions treat commodities and securities similarly. For example, traders of commodities and securities can both elect mark-to-market taxation of their trading.³⁰³ Thus, incremental reform efforts should bring crypto assets into the securities category. Because the language of the Code prevents the IRS from doing so, Congress would need to authorize the IRS to classify crypto assets as securities.

VI. BEYOND SECURITIES: ASSET-TO-ASSET COMPARISONS

A. Introduction

Previously, this Article considered how crypto assets should be classified under various provisions of the Code. For example, it asked whether Bitcoin is a “security” under section 1091(a), thus making it subject to the wash-sale rules. When analyzing these classification problems, we considered a single crypto asset (e.g., Bitcoin) and a single category (e.g., security under section 1091(a)).

Other provisions and doctrines introduce a new dimension. Before 2018, for example, taxpayers could engage in a like-kind exchange of personal property under section 1031(a).³⁰⁴ To qualify for this special treatment,

301. The wash-sale rules also apply if the taxpayer bought the replacement securities thirty or fewer days *before* the loss securities were sold. *See supra* note 122 and accompanying text (quoting I.R.C. § 1091(a)).

302. *See* Rev. Rul. 71-568, 1971-2 C.B. 312 (“Commodity futures contracts are not stock or securities and therefore the wash sale provisions of section 1091 of the Code do not apply to capital losses resulting from the sale of such contracts.”).

303. *See supra* notes 276–77 and accompanying text. Like traders, dealers of commodities have elective mark-to-market taxation, but dealers of securities must follow this system on a mandatory basis. *See supra* Section III.E.2.

304. *See* Act of Dec. 22, 2017, Pub. L. No. 115-97, § 13303, 131 Stat. 2054, 2123 (2017) (codified as amended at I.R.C. § 1031(a)); Carolyn Davis, Comment, *Section 1031 Like-Kind Exchanges: Treatment of Nebraska’s Certified Irrigated Acres*, 100 NEB. L. REV. 295, 297 (2021) (“Before the Tax Cuts and Jobs Act of 2017 (TCJA), like-kind exchanges were allowed for both real property and personal property. Now, like-kind exchanges are limited to real property only.” (footnotes omitted)).

there must be two (or more) properties which are of a like kind.³⁰⁵ Thus, the classification of “like kind” applies not to one but to two properties. After 2017, like-kind exchanges are not available to personal property (including crypto assets).³⁰⁶ Still, a similar problem can arise under the realization doctrine. Briefly stated, this problem is whether the exchange of two economically equivalent cryptocurrencies results in a taxable event at all.

Despite the added dimension, these problems remain ones of classification. Are Ether and Litecoin of “like kind”? Are Bitcoin and Wrapped Bitcoin sufficiently different that their exchange is taxable? And, after identifying the assets and the underlying provisions, the remaining analysis should apply to the entire system. If Bitcoin and Wrapped Bitcoin exchanges are taxable for one taxpayer, then they are for all taxpayers.

B. Like-Kind Exchanges

Before 2018, a taxpayer might have argued that she could conduct a like-kind exchange of one crypto asset for another under section 1031(a).³⁰⁷ For example, in early 2017, 1 BTC was worth about \$1,000,³⁰⁸ and 1 ETH was worth about \$10.³⁰⁹ A taxpayer who exchanged 1 BTC for 100 ETH might claim that any gain should not be recognized.

In a recent Chief Counsel Advice Memorandum,³¹⁰ the IRS rejected like-kind exchange treatment for exchanges between Bitcoin, Ether, and Litecoin. According to the IRS, all three assets have different purposes and exist on different blockchains. Particularly before 2018, Bitcoin and Ether acted as “on ramps” for crypto-asset trading. Traders could not always buy other cryptocurrencies for dollars, but they could more readily buy Bitcoin

305. Section 1031(a)(1) reads as follows:

No gain or loss shall be recognized on the exchange of real property held for productive use in a trade or business or for investment if such real property is exchanged solely for real property of like kind which is to be held either for productive use in a trade or business or for investment.

Before 2018, the provision referred simply to “property” rather than “real property,” making it possible to have a like-kind exchange of personal property. See BITTKER & LOKKEN, *supra* note 3, ¶ 44.2.3 (“Until 2018, an exchange of tangible personal property could qualify for nonrecognition under § 1031.”).

306. See Eli Cole, Note, *Cryptocurrency and the § 1031 Like Kind Exchange*, 10 HASTINGS SCI. & TECH. L.J. 75, 87 (2019) (“The Tax Cuts and Jobs Act of 2017 significantly limits the scope of § 1031 by restricting application of the statute to real property. Therefore, § 1031 patently prevents any like kind exchange between cryptocurrency post-2017.” (footnote omitted)).

307. See *supra* note 305.

308. See *Bitcoin to USD Chart*, COINMARKETCAP, <https://coinmarketcap.com/currencies/bitcoin/> [https://perma.cc/H63Z-YCL3] (last visited Dec. 15, 2022) (limit dates to Jan. 1, 2017 to Jan. 31, 2017).

309. See *Ethereum to USD Chart*, COINMARKETCAP, <https://coinmarketcap.com/currencies/ethereum/> [https://perma.cc/CCM5-GFBM] (last visited Dec. 15, 2022) (limit dates to Jan. 1, 2017 to Jan. 31, 2017).

310. I.R.S. CCA 202124008 (June 18, 2021).

and Ether and exchange them for other cryptocurrencies (like Litecoin). For this reason, the IRS asserted that Litecoin was not of a like-kind with respect to either Bitcoin or Ether. Bitcoin and Ether are not a like-kind either, according to the IRS, because Ethereum’s smart contracts give it functionality that Bitcoin does not have.³¹¹

This analysis is no longer relevant to section 1031. After 2017, like-kind exchanges are limited to real property.³¹² It does, however, illustrate a different type of classification than ones previously considered. The Chief Counsel Advice Memorandum did not classify Bitcoin, Ether, or Litecoin into a category. Rather, it analyzed whether they shared a relationship as assets of a “like kind.” Thus, the classification problem applies to single crypto assets and to pairs of crypto assets.

C. Tumbler/Mixer Transactions

The treatment of exchanges continues to produce important issues after 2017. Using jargon that often confuses the uninitiated, the Code distinguishes between realization and recognition. Realization occurs when taxpayers “exchange . . . property for other property differing materially either in kind or in extent”³¹³ The exchange of real property (e.g., Blackacre for Whiteacre) would always be a realization event. In general, taxpayers must recognize the gain or loss that they realize.³¹⁴ Special provisions, like section 1031(a), override this general rule requiring recognition. We can frame the analysis into two questions. Was there a “realization event”? If not, there is no further analysis. If so, does a nonrecognition provision (e.g., like-kind exchange) apply? Even if like-kind exchanges are unavailable, the first question—realization—remains important to crypto assets.

Some crypto-asset exchanges may not be realization events. Consider a Bitcoin “tumbler” or “mixer” transaction, which is conducted to improve financial privacy (or obscure criminal behavior).³¹⁵ For example, suppose that you represent a famous athlete who asked to be paid his salary in Bitcoin.³¹⁶ Because Bitcoin payments exist on the blockchain, they are

311. *See id.*

312. *See supra* note 305.

313. Treas. Reg. § 1.1001-1(a) (as amended in 2017).

314. *See* I.R.C. § 1001(c).

315. *Cf.*, e.g., *United States v. Harmon*, 474 F. Supp. 3d 76, 82 (D.D.C. 2020) (describing use of mixers to conceal illegal purchases).

316. *Cf.* Weston Blasi, *NFL’s Odell Beckham Jr. Got His \$750,000 Salary in Bitcoin — How Much Did It End Up Costing Him?*, MARKETWATCH (May 12, 2022, 1:58 PM), <https://www.marketwatch.com/story/nfls-odell-beckham-jr-took-his-750-000-salary-in-bitcoin-how-much-did-it-end-up-costing-him-11643050374> [<https://perma.cc/F5S2-6PS7>] (“Los Angeles Rams

public for anyone to see. The public can see the receipt of the salary, but the athlete might wish to obscure what he spends his salary on.

In a tumbler or mixer transaction, several users aggregate their Bitcoin holdings as the “input” to a large, shared transaction. The transaction then gives outputs to new addresses controlled by the inputting users. The outputs maintain the same ownership level as before (less, perhaps, a fee for a facilitator). But, if we look at the blockchain after the transaction, we will not be able to identify which of the new addresses are controlled by which user.³¹⁷

Suppose the athlete uses a tumbler service. The athlete has mechanically exchanged Bitcoin for Bitcoin, but the athlete never received cash in an intermediate step. What the athlete received as an output was identical to what he gave up as an input. Because the inputs and outputs are the same property—Bitcoin—they did not “differ[] materially either in kind or in extent,” so their exchange is not a realization event.³¹⁸ As with like-kind exchanges, this problem is one of classification. In a given transaction, Bitcoin inputs and Bitcoin outputs do not differ materially. In contrast, Bitcoin and other crypto assets (like Ether and Litecoin) do.

D. “*Wrapped*” Coins

1. *Moving Bitcoin to the Ethereum Blockchain*

By allowing for smart contracts, the Ethereum platform added a large degree of functionality that Bitcoin does not possess (at least not currently).³¹⁹ For example, Ethereum users can create “tokens,” which resemble cryptocurrency. Tokens are different from Ether, because token transactions occur only inside of user-created smart contracts whereas Ether transactions occur on the Ethereum blockchain that everyone uses.³²⁰

wide receiver Odell Beckham Jr. made headlines in November after announcing he would be converting his 2021 salary into bitcoin.”).

317. See *Harmon*, 474 F. Supp. 3d at 82 (quoting Usha R. Rodrigues, *Law and the Blockchain*, 104 IOWA L. REV. 679, 712 n.224 (2019)).

318. A realization event occurs upon “the conversion of property into cash, or from the exchange of property for other property differing materially either in kind or in extent, is treated as income or as loss sustained.” Treas. Reg. § 1.1001-1(a). Absent such a difference, there is no realization. See *Cottage Sav. Ass’n v. Comm’r*, 499 U.S. 554, 561–62 (1991) (“In a series of early decisions involving the tax effects of property exchanges, this Court made clear that a taxpayer realizes taxable income only if the properties exchanged are ‘materially’ or ‘essentially’ different.”).

319. Recent innovations may expand upon Bitcoin’s smart contract capabilities. See *List of Bitcoin Forks*, WIKIPEDIA, https://en.wikipedia.org/wiki/List_of_bitcoin_forks [<https://perma.cc/AA7G-9GRF>] (last visited Dec. 15, 2022)(discussing Taproot).

320. See ANTONOPOULOS & WOOD, *supra* note 48, at 227 (“Sending ether is an intrinsic action of the Ethereum platform, but sending or even owning tokens is not.”).

Ethereum’s smart contracts also allow for innovative (and sometimes controversial) projects under the umbrella of DeFi. If deployed on the Ethereum blockchain, DeFi projects can transact only in those assets that exist inside Ethereum: Ether and Ethereum tokens. It could not transact in actual dollars (though some tokens act as “stablecoins” with value pegged to the dollar). Similarly, an Ethereum-based DeFi project could not transact directly in Bitcoin, because it does not exist on the Ethereum blockchain.

To work around this limitation, developers have created a new Ethereum token called “Wrapped Bitcoin.” An owner would transfer Bitcoin to a custodian, and the custodian would transfer a Wrapped Bitcoin token back to the owner. Economically, the Wrapped Bitcoin should have value equal to the value of Bitcoin or close to it. Mechanically, however, the Wrapped Bitcoin exists on the Ethereum blockchain (via a smart contract), whereas Bitcoin exists on its own blockchain.³²¹

2. Realization Doctrine and Taxable Exchanges

Suppose an owner holds 1 BTC, which she bought for \$1,000 a few years ago. She exchanges it for 1 WBTC, which is worth \$40,000 in early 2022.³²² Does the owner have a taxable exchange, or a “realization event,” from the exchange? As noted before, a realization event occurs “from the exchange of property for other property differing materially either in kind or in extent.”³²³ So, the question is whether WBTC differs “materially either in kind or in extent” from BTC. Unlike the tumbler/mixer example, the BTC/WBTC does not have an easy answer.

The leading case on the realization doctrine is *Cottage Savings Association v. Commissioner*.³²⁴ In it, the taxpayer attempted to realize deductible losses on a portfolio of mortgages. Rather than selling the mortgages at a loss for cash, the taxpayer exchanged them for similar mortgages of equivalent value. The IRS argued that the taxpayer did not have a realization event because the mortgage portfolios were not materially different.³²⁵ The Supreme Court held for the taxpayer, finding a realization event upon the exchange because the exchanged portfolios had different “legal entitlements,” even if they were economically equivalent.³²⁶

321. See *Do More with Your Bitcoin*, WBTC, <https://wbtc.network> [<https://perma.cc/BTR3-GNDY>] (last visited Dec. 15, 2022).

322. See *Wrapped Bitcoin to USD Chart*, COINMARKETCAP, <https://coinmarketcap.com/currencies/wrapped-bitcoin/> [<https://perma.cc/D9JL-Y82T>] (last visited Feb. 12, 2022) (selecting “Historical Data” and limiting dates to Jan. 1, 2022 to Jan. 31, 2022).

323. Treas. Reg. § 1.1001-1(a).

324. 499 U.S. 554 (1991).

325. *Id.* at 556–59.

326. *Id.* at 565 (“[P]roperties are ‘different’ in the sense that is ‘material’ to the Internal Revenue Code so long as their respective possessors enjoy legal entitlements that are different in kind or extent.”).

Applying *Cottage Savings* to Wrapped Bitcoin is difficult because it is not clear what legal entitlements the owners of Bitcoin and Ethereum have. One might argue that the relevant right is the right to sign transfers with a digital signature, giving their ownership of the cryptocurrency to a new party. A Bitcoin owner's transfer would appear on the Bitcoin blockchain; a Wrapped Bitcoin owner's would appear in an Ethereum smart contract.

Cottage Savings cited and discussed older cases that further support treating the BTC/WBTC exchange as a taxable event. In *United States v. Phellis*³²⁷ and *Marr v. United States*,³²⁸ taxpayers held shares in corporations that had appreciated in value. The Court in *Cottage Savings* described those cases as follows:

[I]n each case, the corporation in which the taxpayer held stock had reorganized into a new corporation, with the new corporation assuming the business of the old corporation. [The] corporations . . . both changed from New Jersey to Delaware corporations In each case, following the reorganization, the stockholders of the old corporation received shares in the new corporation equal to their proportional interest in the old corporation.

The question in these cases was whether the taxpayers realized the accumulated gain in their shares in the old corporation when they received in return for those shares stock representing an equivalent proportional interest in the new corporations. . . . [W]e held that the transactions were realization events. We reasoned that because a company incorporated in one State has “different rights and powers” from one incorporated in a different State, the taxpayers in *Phellis* and *Marr* acquired through the transactions property that was “materially different” from what they previously had.³²⁹

Current law treats reincorporation as a tax-free reorganization.³³⁰ Despite the statutory override, *Cottage Savings* looked to *Phellis* and *Marr* to find that the exchange of economically similar loan portfolios was a taxable event. Thus, the principles of *Phellis* and *Marr* remain valid. Both cases involved a change that, from an economic perspective, seemed trivial. But, because state law determines the legal entitlements of shareholders, the Court found the change resulted in realization.

327. 257 U.S. 156 (1921).

328. 268 U.S. 536 (1925).

329. *Cottage Savings*, 499 U.S. at 563–64.

330. See I.R.C. § 354(a)(1) (treating reorganizations as tax-free non-recognition events); I.R.C. § 368(a)(1)(F) (treating “a mere change in identity, form, or place of organization of one corporation, however effected” as a reorganization).

In limited circumstances, however, the IRS has allowed for tax-free conversions of assets. In Revenue Ruling 90-7,³³¹ a taxpayer owned an interest in an investment trust. Under the terms of the trust, she converted that interest into a proportionate share of trust assets. The IRS ruled that the conversion was not a realization event. The reason was that, even before the exchange, the taxpayer was deemed to have been an owner of the trust assets. Because the ruling relied on trust law and trust taxation to reach this result,³³² it has questionable application in wider contexts.

3. Analyzing the BTC/WBTC Exchange

The exchange of BTC and WBTC seems similar to the reincorporations in *Phellis* and *Marr*. BTC and WBTC should have equivalent economic value,³³³ but they exist on different blockchains. While blockchains do not, strictly speaking, provide “legal entitlements,” they do determine participants’ privileges and permissions. The most valuable privilege would be to transfer units of BTC or WBTC to a new owner. For example, the holder of BTC would look to the Bitcoin protocol to execute a transfer of BTC units. In contrast, the holder of WBTC would look to the Ethereum smart contract creating the WBTC token. Thus, as in *Phellis* and *Marr*, the source of “law” changes after the exchange, even if the value does not.

Revenue Ruling 90-7 may appear promising, as it deals with the exchange of a trust interest for an interest in trust property. In some sense, a trust is a “wrapper” for property,³³⁴ but so is a corporation. The difference is that tax and state law respect the separate personhood of corporations. In contrast, a trust beneficiary can be treated as the owner of the underlying property.³³⁵ This distinction helps reconcile Revenue Ruling 90-7 with *Phellis* and *Marr*. From a tax perspective, the beneficiary in Revenue Ruling 90-7 already owned the exchanged trust assets; in *Phellis* and *Marr*, the taxpayers were exchanging distinct assets. Revenue Ruling 90-7 should not, therefore, apply to exchanges of BTC and WBTC.³³⁶ An owner who exchanges 1 BTC for 1 WBTC does not remain the owner of the 1 BTC.

331. 1990-1 C.B. 153.

332. The ruling found that the trust was a “grantor trust” under the rules of I.R.C. §§ 671–79. As a result, any exchange between the taxpayer and the trust is completely disregarded for income-tax purposes. *Id.* at 154.

333. See *Wrapped Bitcoin (WBTC)*, FORBES, <https://www.forbes.com/digital-assets/assets/wrapped-bitcoin-wbtc/?sh=5e9291e95103> [<https://perma.cc/VCA3-ZTDE>] (last visited Dec. 15, 2022).

334. Cf. Note, *Dynasty Trusts and the Rule Against Perpetuities*, 116 HARV. L. REV. 2588, 2605 (2003) (referring to a “trust wrapper”).

335. See RESTATEMENT (THIRD) OF TRUSTS § 2 cmt. d (AM. L. INST. 2003) (“[T]rust beneficiaries have equitable title.”); *supra* notes 331–32 (discussing grantor trust rules).

336. *But cf.* N.Y. STATE BAR ASS’N TAX SECTION, *supra* note 107, at 38 & n.121 (arguing for nonrecognition treatment of token swaps based on the ruling).

Absent congressional action or overt IRS forbearance, the exchange of BTC and WBTC is a realization event.

Nevertheless, the exchange of BTC for WBTC should not be taxable as a matter of good policy. The Code allows myriad nonrecognition transactions that defer tax consequences when the exchange does not alter the economic substance of the investment. Reincorporations,³³⁷ incorporations,³³⁸ and like-kind exchanges³³⁹ are examples from above. The change in form from BTC to WBTC should have similar treatment as they are close substitutes with little, if any, economic difference. In *Cottage Savings*, however, the Supreme Court interpreted the realization doctrine to apply when the exchange of property involved different legal entitlements even if the economic attributes of the exchange properties are very similar.³⁴⁰ Analogizing the different blockchains to different legal entitlements would imply that the exchange of BTC and WBTC is taxable.

As with other determinations in this Article, the analysis does not depend upon a wide range of taxpayer-specific facts and circumstances. For example, we can analyze the exchange of BTC and WBTC without needing to know anything about the taxpayer's intent. Because the common facts dictate common tax consequences, the IRS should announce how it thinks the exchange of BTC and WBTC would be taxed. Such a broad announcement would be efficient for both taxpayers, who could look to an IRS announcement rather than engaging in their own separate analysis. The IRS may also benefit if the announcement leads to better compliance and less controversy.

VII. SOLVING CRYPTO'S TAX CLASSIFICATION PROBLEMS

A. Expanding "Securities" to Cover Actively Traded Crypto Assets

While this Article accepts the IRS's classification of crypto assets as property,³⁴¹ this classification is incomplete. Many provisions of the Code extend special treatment to certain kinds of property, and many of those provisions should apply to crypto assets.³⁴² Some categories should not

337. See *supra* note 330 and accompanying text.

338. See *supra* Section III.D.

339. See *supra* Section VI.B.

340. As the Court said, "properties are 'different' in the sense that is 'material' to the Internal Revenue Code so long as their respective possessors enjoy legal entitlements that are different in kind or extent." *Cottage Sav. Ass'n v. Comm'r*, 499 U.S. 554, 565 (1991). In contrast, the Court found "no support for [an] 'economic substitute' conception of material difference." *Id.*

341. See *supra* Section II.A.

342. The goal of the foregoing was not to catalogue all the classification problems that plague cryptocurrencies. For a comprehensive treatment, see Carman, *supra* note 2355.

apply. Generally speaking, crypto assets are not “money,” because money is cash, a check, or other asset that has stable value in dollars.³⁴³ Crypto assets are also not “foreign currency,” because they are not commonly used as a medium of exchange or unit of account in foreign countries.³⁴⁴ Crypto assets are, however, “actively traded personal property,” which leads to special treatment under provisions dealing with straddles and passive-activity losses.³⁴⁵

The two remaining categories discussed are securities and commodities. This Article does not propose a wholesale reexamination of how securities are defined and taxed under the Code. It does, though, propose that the provisions treat most crypto assets like securities. To qualify, crypto assets should be fungible (like securities). They should also be liquid or “actively traded” as described in the straddle and passive-activity loss regimes.³⁴⁶

Many provisions define securities narrowly to mean corporate debt and equity.³⁴⁷ A limited class of crypto assets could satisfy this definition. Some observers believe that DAOs could replace corporations for some purposes.³⁴⁸ To the extent that crypto assets represent ownership in DAOs, they could well satisfy these narrow definitions of securities. Arguably, the IRS could treat these vehicles as securities without enabling legislation.

If defined as corporate equity or debt, the term “securities” does not, however, cover a broad range of crypto assets. Bitcoin and Ether, for example, are neither corporate equity nor corporate debt. Without enabling legislation, the IRS could not designate Bitcoin and Ether as a “security”

343. See *supra* Section I.F. The IRS might designate some stablecoins as money, though doing so would be a delicate and complex project. See *supra* Section IV.A.

344. See *supra* Section IV.B.

345. See *supra* Section IV.C.

346. See *supra* Part V.

347. See, e.g., I.R.C. § 1236(c) (“For purposes of this section, the term ‘security’ means any share of stock in any corporation, certificate of stock or interest in any corporation, note, bond, debenture, or evidence of indebtedness, or any evidence of an interest in or right to subscribe to or purchase any of the foregoing.”).

348. See, e.g., Tomio Geron, *DAOs Are Running Crypto. Can They Replace the Corporation, Too?*, PROTOCOL (Dec. 6, 2021), <https://www.protocol.com/fintech/dao-llc> [<https://perma.cc/P682-XYFL>] (describing DAOs as “a way for people to avoid the hierarchical centralized systems in corporations or other large organizations”).

defined as corporate debt or equity, as the designation would conflict with the language of the Code.³⁴⁹

Reform efforts should look to existing language in the Code. The straddle rules of section 1092 and passive-activity loss restrictions of section 469 offer a model for the classification of crypto assets. Sections 1092 and 469 do not limit their application to securities. Instead, they both apply to actively traded personal property, and this category already brings many crypto assets into sections 1092 and 469. Congress could use this model to amend the definitions of securities in the Code, including in them actively traded crypto assets. For example, Congress should amend the wash-sale rules to extend them to actively traded crypto assets. Similar amendments should apply to most of the provisions discussed in Sections 0 and 0.

Thus, Congress should separately define “actively traded” and “crypto assets” by reference to other provisions.³⁵⁰ “Actively traded” would take the meaning that the straddle rules (section 1092) give it under current law and thus would require the existence of an established financial market.³⁵¹ “Crypto assets” would take the meaning given to digital assets under section 6045(g): “any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology.”³⁵²

B. Current Exceptions & Future Flexibility

The securities classification works when the underlying policies connect to fungible, liquid (actively traded) assets. For example, the wash-sale rules apply to securities because one share of Peloton stock is no different from another. Also, it is relatively easy to buy replacement shares when selling Peloton at a loss.³⁵³ The same reasoning applies to Bitcoin and most other crypto assets.

349. In *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, the United States Supreme Court said—

When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.

467 U.S. 837, 842–43 (1984); see also Steve R. Johnson, *Preserving Fairness in Tax Administration in the Mayo Era*, 32 VA. TAX REV. 269, 284 (2012) (discussing when “the statute itself clearly answers the question at issue”).

350. Cf. generally *supra* Section IV.C (discussing actively traded personal property); *supra* Section III.C (discussing information reporting for digital assets).

351. See Treas. Reg. § 1.1092(d)-1(a) (as amended in 2014).

352. I.R.C. § 6045(g)(3)(D).

353. See *supra* Section III.B.1.

Some provisions of the Code refer to securities for reasons other than taxing income correctly. For example, section 402(e)(4) provides special treatment when retirement plans distribute “securities of the employer.”³⁵⁴ Unlike in the wash-sale rules, this definition ties “securities” to a non-tax policy, namely encouraging employee ownership.³⁵⁵ Crypto assets should not be considered securities under section 402(e)(4) because they do not further employee ownership. More broadly, section 402(e)(4) illustrates the problem with a blanket designation of crypto assets as securities under the Code.

In functional terms, crypto assets should be treated as securities when they are both fungible and liquid. The wash-sale rules illustrate the need for fungibility. Taxpayers who sell a security cannot claim a loss if they replace the security within a thirty-day period.³⁵⁶ Though crypto assets, NFTs do not satisfy this criterion and should not be treated as securities under the Code.³⁵⁷ Recalling the attempted wash sale of Peloton stock illustrates the need for fungibility. The fact that a taxpayer sold and bought different shares of Peloton stock is irrelevant.

The mark-to-market rules for securities dealers illustrate the need for liquidity. Under these rules, securities dealers must value their holdings on an annual basis, recognizing all gain and loss for income-tax purposes. These rules do not work, however, if the holdings are illiquid or thinly traded.³⁵⁸ Not every crypto asset is actively traded. Congress and the IRS should refine the definition to capture only those crypto assets that enjoy a robust trading market. Trading on a crypto exchange is an obvious criterion.³⁵⁹ Some crypto assets are thinly traded, and the IRS could establish trading volume thresholds that would trigger the actively traded designation. For example, the IRS might treat a crypto asset as actively traded if its daily volume is \$500 million per day measured over some period. This test would capture the most liquid twenty or so crypto assets.³⁶⁰

Finally, an amendment should give the IRS flexibility to handle future changes. At present, stablecoins should be treated as securities rather than as money or currency under the Code. They do not have the legal characteristics of money. Unlike cash, they are not issued by the Federal Reserve or the United States Mint. Unlike bank accounts, they are not

354. See I.R.C. § 402(e)(4)(E); *supra* Section III.E.4.

355. See *supra* Section III.E.4.

356. See Section III.B.3.

357. Cf. *supra* notes 53–57 (discussing NFTs).

358. See *supra* Section III.E.2.

359. Cf. *supra* note 264 and accompanying text (describing the meaning of “actively traded” for purposes of the straddle rules).

360. Cf. *Today’s Cryptocurrency Prices by Market Cap*, COINMARKETCAP, <https://coinmarketcap.com> [<https://perma.cc/VYF9-W6XX>] (last visited Dec. 15, 2022) (choose “Volume(24h)”) (ranking crypto assets by trading volume).

guaranteed by the Federal Deposit Insurance Corporation. Functionally, they are not widely used as a medium of payment. Holders use them when trading on crypto exchanges as a way to shield themselves from market fluctuations without converting their accounts to fiat currency. For example, a trader might want to hold Bitcoin on days when she expects it to climb in value and to hold cash on all other days. Rather than holding actual cash, the trader might find it much more convenient to convert her Bitcoin holdings into stablecoins.³⁶¹

At some point in the future, however, stablecoins may take on the characteristics of money. For example, a recent report from the President's Working Group on Financial Markets proposed that "legislation should require stablecoin issuers to be insured depository institutions, which are subject to appropriate supervision and regulation, at the depository institution and the holding company level."³⁶² Such legislation should signal government support of stablecoins and a consideration of their place in financial regulation. If Congress ever passed such legislation, the IRS should seriously consider redesignating stablecoins as money. Tax legislation should enable the IRS to alter its classifications as markets and regulation of crypto assets mature.

C. Other Determinations

This Article has already noted problems that are comparative rather than categorical. Before 2018, taxpayers could engage in tax-deferred like-kind exchanges of personal property. A similar but narrower issue exists in 2018 and after under the realization doctrine itself. Taxpayers do not realize gain or loss on the exchange of crypto assets that do not differ materially.³⁶³ We can think of these problems as classifying pairs of crypto assets. Are Bitcoin and Ether of a like kind? Do Bitcoin and Wrapped Bitcoin differ materially? As with single-asset classifications, the IRS could issue guidance classifying pairs according to these standards.

System-wide determinations can be factual and found outside of the classification problems discussed above. For example, in 2017, Bitcoin underwent a "hard fork" resulting in the creation of a new cryptocurrency, Bitcoin Cash. As a result of the hard fork, every owner of Bitcoin received a new unit of Bitcoin Cash. The hard fork presented a difficult issue of taxation. Did the Bitcoin owners have gross income immediately upon the

361. See Diana Qiao, *This Is Not a Game: Blockchain Regulation and Its Application to Video Games*, 40 N. ILL. U. L. REV. 176, 183 (2020).

362. PWG REPORT, *supra* note 64, at 2.

363. See *supra* Sections VI.C–D.

hard fork?³⁶⁴ Those owning Bitcoin directly (rather than through a broker or “hosted wallet”) faced a common issue. If Alice and Bob both received Bitcoin Cash from the hard fork, they should both have similar tax consequences.

The IRS should have released guidance specifying Alice’s and Bob’s tax consequences. The guidance could have gone beyond the threshold issue of whether they had gross income. If they did, the IRS could have issued guidance on the per-unit value of Bitcoin Cash. For taxpayers owning their Bitcoin directly (without a third-party broker), there should be no difference in tax consequences other than the amounts involved.

As with all interpretations, caveats can apply. Many owners hold their Bitcoin through brokers, which control the owners’ private keys.³⁶⁵ At the time of the Bitcoin Cash hard fork, some of the brokers claimed they would not support the newly created cryptocurrency.³⁶⁶ Moreover, some owners feared that the brokers would retain the Bitcoin Cash for themselves. Such beneficial owners of Bitcoin may well have different tax consequences than direct owners who control their own private keys. Nevertheless, the IRS could have brought much-needed clarity to the hard fork by addressing the taxation (including valuation) of taxpayers who owned Bitcoin directly.

D. Exceptions for Taxpayer-Specific Determinations

Many (perhaps most) tax problems depend in large part on a multitude of facts and circumstances, including the actions and intentions of the taxpayer. A common issue in tax practice is whether a taxpayer is an “investor” or a “dealer” in real property. The difference between the two can be dramatic. Investors typically get favorable capital gains treatment upon gains but face limitations on their loss deductions. Dealers, in contrast, pay higher “ordinary” rates on their gains but more freely deduct their losses.³⁶⁷

364. See, e.g., Chason, *Bitcoin Cash*, *supra* note 15, at 29–37 (analyzing possible tax consequences from the hard fork).

365. Hosted wallets give control of the owner’s private keys to an intermediary. See Requirements for Certain Transactions Involving Convertible Virtual Currency or Digital Assets, 85 Fed. Reg. 83840, 83842 (proposed Dec. 23, 2020) (to be codified at 31 C.F.R. § 1010, 1020, 1022) (“[C]ertain financial institutions provide custody services for their customers’ [convertible virtual currency] in so-called ‘hosted wallets.’ In such arrangements, a financial institution may execute transactions on a blockchain on behalf of a customer using a private key controlled by the financial institution.”); John O. McGinnis & Kyle Roche, *Bitcoin: Order Without Law in the Digital Age*, 94 IND. L.J. 1497, 1502 (2019) (describing “hosted wallets” as “service providers that manage individuals’ bitcoins”).

366. See, e.g., Chason, *Bitcoin Cash*, *supra* note 15, at 30 (describing initial reluctance of Coinbase to recognize Bitcoin Cash).

367. See, e.g., BITTKER & LOKKEN, *supra* note 3, ¶ 46.2.1.

The difference between the two depends largely upon the actions and intentions of the taxpayer. In *United States v. Winthrop*,³⁶⁸ the United States Court of Appeals for the Fifth Circuit noted the following factors:

(1) the nature and purpose of the acquisition of the property and the duration of the ownership; (2) the extent and nature of the taxpayer's efforts to sell the property; (3) the number, extent, continuity and substantiality of the sales; (4) the extent of subdividing, developing, and advertising to increase sales; (5) the use of a business office for the sale of the property; (6) the character and degree of supervision or control exercised by the taxpayer over any representative selling the property; and (7) the time and effort the taxpayer habitually devoted to the sales.³⁶⁹

Even though the test classifies property as a capital asset, it is actually classifying the owner. Alice might be a dealer with respect to Bitcoin, making it not a capital asset in her hands. Bob might be an investor, making Bitcoin a capital asset in his. The distinctions between dealers and investors are oftentimes very factitious, turning on the activities of the taxpayers as interpreted by a voluminous body of caselaw.³⁷⁰ While the IRS might issue general guidance on these issues, they are far too taxpayer-specific for it to make system-wide determinations.

CONCLUSION

To date, IRS guidance on crypto assets has been thin. When the IRS has issued guidance, it has occasionally mishandled the technical details (such as confusing air drops and hard forks). More personnel (and personnel with greater technical expertise) would allow the IRS to keep pace with the explosive growth of crypto assets. Nevertheless, the IRS could better leverage its existing resources by focusing on select issues and seeking enabling legislation from Congress. Specifically, the IRS should focus on crypto issues occurring on a system-wide basis and not requiring taxpayer-specific considerations.

368. 417 F.2d 905 (5th Cir. 1969).

369. *Id.* at 910.

370. *Cf.* BITTKER & LOKKEN, *supra* note 3, ¶ 47.2.2 (analyzing the dealer/investor distinction for financial assets). For example, in *Marrin v. Commissioner*, 147 F.3d 147 (2d Cir. 1998), the Second Circuit held that an active trader in securities could not take ordinary-loss deductions for his trading losses. Even though the taxpayer was a “trader,” he was not a “dealer” because he had no customers. *Id.* at 152. As explained by the court, “dealers” are taxpayers who buy securities in the hopes of selling to others (i.e., customers) at a mark-up. In contrast, “traders” are taxpayers who hope that their purchases will increase in value. *Id.* at 151.

For example, determining whether Bitcoin is a “security” under various provisions of the Code does not require the IRS to examine specific taxpayers. It must, though, examine Bitcoin itself and the provisions using the term. Under current law, Bitcoin would not be a security under most of these provisions. The purposes of these provisions, however, is to apply special treatment to fungible and liquid investments like stock. Thus, Congress should enable the IRS to make such classifications, even if the language of present law does not permit them.

The classification power should be flexible, allowing for carveouts and exceptions for provisions of the Code and crypto assets. Some provisions using the word securities should not apply to crypto assets. Some crypto assets should not be considered securities at all. Thinly traded crypto assets and NFTs should not qualify because they do not function like securities. Over time, classifications may need to change as new, thinly traded securities become widely adopted. Similarly, stablecoins should be considered securities today, but with different usage or non-tax regulation, they may evolve into money under the Code.

Classifications can also be comparative (rather than categorical). Are Bitcoin and Wrapped Bitcoin different enough that their exchange is a realization event, triggering taxation? Such questions operate on a system-wide basis. In all likelihood, these exchanges are taxable, but they should not be. A broader grant of authority from Congress would allow the IRS to make these determinations and tax crypto assets the right way.