

Form Over Function in the U.S. Taxation of Crypto Might Not Be All Bad

By Jason Schwartz*

I. Introduction

Today's Internet is fundamentally incomplete: it enables information transfers but not value transfers. You can send an email to anyone in the world, but you cannot send dollars unless both you and the recipient have bank accounts and the banks have relationships with each other. You can accumulate likes and follows on a third-party application, but you cannot port that information to another app without the third party's permission.

Public blockchain technology can change that. A public blockchain is a communally maintained database on which arbitrary data can be credited to and debited from pseudonymous web3 wallets (effectively P.O. boxes). That arbitrary data is organized into discrete packages called tokens.

The use cases for tokens are practically unlimited. If those use cases gain wide adoption, a substance-driven, or functional, approach to the U.S. tax treatment of tokens might feel intuitive. For now, the Internal Revenue Service ("IRS") has instead adopted a broad-strokes approach dominated by one principle: all tokens are financial assets.

Recent IRS publications are illustrative. Part II summarizes them. Part III discusses some potentially unintuitive taxpayer-favorable consequences the IRS' formalistic approach could have.

At the outset, I note that the purpose of this article is not to criticize the IRS' current approach to taxing crypto. Although crypto has seen significant growth, it remains a relatively small part of the overall global economy, so broad-strokes regulation might be more sensible for now. Instead, the purpose of this article is to identify patterns and draw inferences from the IRS' guidance.

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II. Recent Guidance

A. Crypto as Non-Currency Under Notice 2023-34

1. Background

Foreign currency is subject to special rules under the tax code.

First, Code Sec. 988(a) treats gain or loss from the disposition of foreign currency as ordinary instead of capital.

Second, under Code Sec. 988(e), personal foreign currency transactions that give rise to less than \$200 of gain are not taxed.

Third, if a taxpayer or branch has a functional currency other than the U.S. dollar, it may compute its net income or loss for each tax year in that functional currency and translate it into U.S. dollars at the average exchange rate, instead of separately determining its foreign currency exchange gain or loss on every transaction.¹

Finally, an assortment of other provisions under the tax code could be implicated if a taxpayer holds foreign currency or FX-related instruments.²

Notwithstanding those special rules, the tax code does not define currency.

In 2021, El Salvador adopted bitcoin (“BTC”) as a legal tender.³ In 2022, the Central African Republic followed suit, but it reversed that decision.⁴

2. IRS Approach

Under Notice 2014-21, virtual currencies are property and not foreign currency. The notice does not specify what kind of property, but subsequently published frequently asked questions (“FAQs”) allow taxpayers to specifically identify virtual currencies by lots,⁵ which is otherwise allowed only for stocks, bonds, and commodities.⁶ So virtual currencies are presumably stocks, bonds, or commodities—*i.e.*, financial assets.

Notice 2014-21 does not say *why* virtual currencies are not foreign currency, but its background section points out that virtual currency “does not have legal tender status in any jurisdiction.” Responding to BTC’s adoption by “certain foreign jurisdictions,” Notice 2023-34 revises Notice 2014-21’s background section to explain that, while some virtual currencies *might* have legal tender status, “the use of virtual currency to perform ‘real’ currency functions is limited.”

Notice 2023-34 exemplifies the IRS’ broad-strokes approach to crypto tokens. The notice makes no exception for branches in El Salvador that conduct significant

activities and keep their books and records in BTC, or for Bitcoiners who visit El Salvador to buy a meal with BTC.

3. A Functional Approach

A functional approach would recognize that crypto tokens might be used for different purposes, including as currency. If a taxpayer establishes a branch in El Salvador that conducts significant activities and keeps its books and records in BTC, a functional approach would permit that taxpayer to use BTC as its functional currency. Similarly, if a taxpayer travels to El Salvador and uses BTC to buy goods or services there, a functional approach would treat those purchases as Code Sec. 988 transactions potentially eligible for the exemption under Code Sec. 988(e).

Nothing under current law appears to foreclose the application of a functional approach. In Rev. Rul. 2019-24, the IRS cited the definition of currency used by the Financial Crimes Enforcement Network, which appears to require the existence of an issuer.⁷ However, the IRS is not bound by that definition, and Rev. Rul. 74-218, which predates the enactment of Code Sec. 988, describes currency more broadly.⁸

B. The Taxation of Forks Under CCA 202316008

1. Background

The people who maintain a blockchain are called validators. The blockchain’s protocol financially encourages them to agree on where each asset sits at any moment. That financial encouragement is called the blockchain’s consensus mechanism.

Ethereum’s September 2022 consensus mechanism switch was called The Merge for technical reasons, but it resulted in two blockchains—one whose validators still used proof of work to reach consensus and another whose validators now used proof of stake. Blockchain developers, app developers, infrastructure providers, and validators worked together to ensure that end-users did not feel the effects of the fork. For example: web3 wallet providers updated their software so that the “ETH” ticker referred to the proof-of-stake version and “ETHW” referred to the proof-of-work version (which most wallets did not even support); stablecoin issuers updated their terms of service to provide that they would redeem for dollars only the version of their tokens reflected on the proof-of-stake chain; and the Ethereum Foundation, a Swiss nonprofit that owns the Ethereum trademark and is dedicated to supporting Ethereum, advocated for the adoption of the proof-of-stake chain.

But Ethereum is open-source software, meaning no one owns it. Upgrades happen by social consensus within a large and diverse community. Each chain resulting from The Merge had a valid claim to being the legacy Ethereum chain: they both shared the exact same history and differed only in how they chose new data entries beginning at block number 15537393. And in a parallel universe, a greater proportion of the Ethereum community might have thrown its weight behind the proof-of-work version.

2. IRS Approach

The IRS' approach does not see a fork as resulting in two equally legitimate successors to the legacy chain and, instead, picks a winner. The winner in CCA 202316008, which is redacted but widely understood to address The Merge, was the chain that inherited the name of the legacy chain—Ethereum. It is unclear how the IRS would pick the legacy chain when community consensus is less lopsided than it was for The Merge.

Under the CCA, the winner's native token is treated as old property and the loser's native token (*i.e.*, ETHW) as new property. If a taxpayer exercises dominion and control over the loser's native token, they have accession to wealth taxed at ordinary rates.⁹

CCA 202316008 is consistent with the IRS' treatment of all tokens as financial assets: if an apparently "new" token is credited to a holder's web3 wallet, the holder is subject to tax. There is no exception even where, as in the case of a fork, no payer exists. The CCA is also consistent with the IRS' view, expressed in Notice 2014-21, that newly minted block rewards earned by validators are not self-created property but instead are subject to tax at ordinary rates when received.¹⁰

3. A Functional Approach

A functional approach would recognize that a blockchain is just a database nobody owns. There is no transfer of "new" property to users when a fork causes two databases to emerge, even though infrastructure providers might make it look like the fork created new tokens and, going forward, the two versions of the database might report the location of the same property differently.

Under a functional approach, it is hard to justify treating a fork as generating taxable income. The tax law has always required the existence of a payer, such as an employer or other counterparty, for taxable income to accrue to someone. That is true even where taxpayers have stumbled upon the treasure trove; a payment is deemed to be made by the property's true owner when the finder

exercises dominion and control over the property and the true owner fails to assert a legal claim to it.¹¹ By contrast, when taxpayers exercise dominion and control over property for which no true owner ever existed—for example, when they extract minerals, harvest crops, breed livestock, or produce art or goods—they are not subject to tax until they sell that property.¹²

A functional approach also recognizes that a blockchain's native token has no value unless people want to use the blockchain. Thus, blockchain users are an integral part of the blockchain's value creation process, further differentiating them from finders of treasure trove.

C. NFTs as Digital Assets Under Notice 2023-27

In Notice 2023-27, the IRS proposes a method for determining when a nonfungible token (an "NFT") is treated as a Code Sec. 408(m) collectible subject to a higher long-term capital gains rate and ineligible to be held by retirement accounts.

While a comprehensive discussion of Notice 2023-27 is beyond the scope of this article, the notice's identification of NFTs as "digital assets" under Code Sec. 6045(g)(3)(D) accords with the IRS' treatment of all tokens as financial assets. Beginning in 2024, Code Sec. 6045(g)(3)(D) defines digital assets as "any *digital representation of value* that is recorded on a cryptographically secured distributed ledger." Notice 2014-21 defines virtual currency to mean "a *digital representation of value* that functions as a medium of exchange, a unit of account, and/or a store of value."

A strict reading of the IRS guidance suggests that because all tokens are digital representations of value, they are all virtual currencies. After all, they all *have* value, and thus are "stores of value," even if they are not media of exchange or units of account.

III. Knock-On Effects of the IRS Approach

Part II illustrated the IRS' bias for treating tokens as financial assets. There are several ways that bias might work to the taxpayer's benefit.

A. Safe Harbor for Non-U.S. Traders

A U.S. manager's trading activities on behalf of non-U.S. people can cause them to be engaged in a U.S. trade or business and subject to net income tax. Code Sec. 864(b)(2) provides a safe harbor for trading in commodities of a

kind customarily dealt in on an organized commodity exchange.¹³ A similar safe harbor exists for stock.

It is widely accepted that BTC and ETH are qualifying commodities. As discussed below, there are good arguments that many other tokens should also qualify.

1. What Tokens Are “Commodities”?

Under Rev. Rul. 73-158, the term “commodities” is to be interpreted in accordance with its “ordinary financial sense” and includes all products traded on U.S. exchanges.¹⁴

Notwithstanding its piecemeal release, the IRS’ guidance on the taxation of crypto tokens has carried a consistent message: all tokens are financial assets.

There are futures traded on BTC and ETH on U.S. commodity exchanges,¹⁵ making them *de facto* commodities under the revenue ruling, as well as commodities of a kind ordinarily dealt in on an organized commodity exchange.

Given the IRS’ broad-strokes approach to crypto tokens, it is hard to see why many other fungible tokens should not also be commodities. The Commodities Exchange Act defines commodities to include all “goods and articles, except onions.”¹⁶ Consistent with that sweeping definition, the IRS has interpreted commodities broadly.¹⁷

2. What Tokens Are “of a Kind Customarily Dealt in on an Organized Commodity Exchange”?

The tax code does not define “organized commodity exchange,” but the term includes at least U.S. exchanges under Rev. Rul. 73-158. And because there are futures traded over BTC and ETH on U.S. exchanges, other tokens are of a kind customarily dealt in on an organized commodity exchange if they are of a kind with BTC and ETH.

Legislative history suggests that the “of a kind” requirement was intended to differentiate goods used only in commerce from goods for which an active speculative market existed.¹⁸ That legislative history found its way

into Reg. §1.864-2(d)(3), which provides that “the term ‘commodities’ does not include goods or merchandise in the ordinary channels of commerce.”

The regulatory exclusion of goods in the ordinary channels of commerce does not seem to prevent a non-U.S. person from relying on the commodities trading safe harbor when selling a commodity through the ordinary channels of commerce, so long as a speculative exchange market for that commodity exists. In Rev. Rul. 73-158, the taxpayer was a foreign manufacturer of sugar. The IRS ruled that its sale of spot sugar contracts qualified under the safe harbor.

Given the IRS’ broad-strokes approach to crypto tokens, it is hard to see why many fungible tokens would not be “of a kind” with BTC and ETH when traded speculatively. Moreover, it makes sense for the “of a kind” requirement to represent a very low bar. Congress enacted Code Sec. 864 because it determined that collecting tax from foreigners on their gains was “administratively impossible,” whereas an “exemption from tax will result in considerable additional revenue from the transfer taxes and from the income tax in the case of persons carrying on the brokerage business.”¹⁹

3. A Caveat

Sound interpretation of tax law requires not just analysis of current guidance but also some degree of common sense. Tokens whose predominant purpose is esthetic (like many NFTs) probably lack the requisite fungibility to be commodities and should not qualify for the commodities trading safe harbor. But U.S. managers trading liquid fungible tokens on behalf of non-U.S. persons have a good argument that those tokens do qualify, either because they are commodities of a kind with BTC and ETH, or—in the case of certain tokens that represent fractionalized interests in business enterprises—because they are stock.²⁰

B. Mark to Market for U.S. Traders

Under Code Sec. 475(f), traders in commodities can elect to mark them to market each year and treat any resulting gain or loss as ordinary income or loss. A similar election exists for traders in stock, bonds, and other securities. U.S. taxpayers might prefer mark-to-market treatment because it is easier to administer than basis tracking and can generate ordinary instead of capital losses.

For the reasons discussed in Part III.A.1., many liquid fungible tokens are probably commodities and thus can be marked to market.²¹ Tokens that are not commodities

might instead be stock (or securities, in the case of some stablecoins²²), which can also be marked to market.

C. Partnership Classification for Funds

Many hedge funds want to be treated as partnerships for U.S. tax purposes. Partnerships generally are not subject to their own layer of tax, and partnership classification generally results in passthrough taxation for U.S. investors.

But under the publicly traded partnership rules of Code Sec. 7704, a partnership whose interests are regularly traded on the secondary market is recharacterized as a corporation if less than 90% of its gross income is “passive.” Passive income includes gain from “commodities” if commodities trading is a principal activity of the partnership.²³

For the reasons discussed in Part III.A.1., many liquid fungible tokens are probably commodities. Thus, many crypto trading funds probably do not have to worry about ensuring that their interests are not regularly traded on a secondary market. Liquid fungible tokens that are not commodities might be stock, which also produces passive income.²⁴

D. Tax Arbitrage Opportunities for U.S. Traders

The vast majority of stablecoins are intended to track the U.S. dollar, but foreign-currency-referent stablecoins exist. Because the IRS’ broad-strokes approach to crypto taxation appears to treat stablecoins as financial assets other than foreign currency, taxpayers might be able to effectively elect into capital gain or loss, instead of ordinary income or loss under Code Sec. 988, by investing in foreign-currency-referent stablecoins instead of in the underlying currency. The exception to that treatment would be if a stablecoin is debt for U.S. tax purposes,²⁵ in which case it would still be subject to Code Sec. 988.

A similar arbitrage opportunity might exist for taxpayers to avoid the higher long-term capital gains tax on collectibles by investing in gold- or silver-backed stablecoins instead of in gold or silver.²⁶ The exception to that treatment would be if a stablecoin is a custodial arrangement (similar to American depository receipts (“ADRs”)) for U.S. tax purposes,²⁷ but IRS guidance to date has not posited a look-through of any virtual currencies.

E. No Look-Through of LP Tokens

Many tokens, such as liquidity provider (“LP”) tokens, represent fractionalized interests in automated software.

If those tokens are financial assets, taxpayers likely do not need to “look through” them.²⁸ Instead, taxpayers generally should recognize gain or loss when they exchange into or out of those tokens, and their proportionate share of the pool’s net income generally should accumulate tax-deferred inside the pool.²⁹

By contrast, if taxpayers did have to look through LP tokens, U.S. holders might have significant phantom income by reason of the many taxable events that occur inside the automated pool, and non-U.S. holders would have to consider whether they are engaged in a U.S. trade or business by reason of the pool’s activities.

It is possible that LP tokens are equity in deemed entities for U.S. tax purposes. In that case, many could be treated as corporate stock under the publicly traded partnership rules of Code Sec. 7704, because they are readily tradable and the income earned by the underlying software consists of non-passive dealer-type fee income.³⁰ Corporate stock generally is not subject to look-through treatment, although U.S. holders would have to consider whether the controlled foreign corporation or passive foreign investment company rules apply.³¹ Corporate stock treatment also raises the specter that the liquidity pool is, itself, subject to U.S. income tax and, if so, who is responsible for paying that tax.³²

IV. Conclusion

Notwithstanding its piecemeal release, the IRS’ guidance on the taxation of crypto tokens has carried a consistent message: all tokens are financial assets.

For taxpayers, downsides of the IRS’ approach are that (1) crypto is never a foreign currency, (2) claiming both tines of a blockchain fork always results in tax, (3) consensus-layer block rewards are taxable, and (4) NFTs are subject to the same broker reporting rules under Code Sec. 6045 as other tokens.

But upsides are that (1) U.S. managers can trade many tokens on behalf of non-U.S. investors, (2) U.S. traders can make mark-to-market elections on many tokens, (3) hedge funds can trade many tokens without triggering the publicly traded partnership rules, (4) U.S. traders might be able to effectively elect out of Code Sec. 988 for some of their foreign currency trades, and (5) both U.S. and non-U.S. persons might be able to avoid the negative consequences of looking through LP tokens.

Some taxpayers might be okay with that tradeoff. As the saying goes, don’t look a gift horse in the mouth.

ENDNOTES

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- ¹ Code Sec. 987. Code Sec. 985(b) defines functional currency as the currency of the economic environment in which a significant portion of a taxpayer or branch's activities is conducted, provided that the taxpayer or branch uses that currency in keeping its books and records.
 - ² See, e.g., Code Sec. 351(e) (treating foreign currency as stocks and securities for determining whether a corporation is an investment company); Code Sec. 721(b) (analogous rule for partnerships); Code Sec. 1256 (treating foreign currency contracts as section 1256 contracts).
 - ³ The New York Times, *In Global First, El Salvador Adopts Bitcoin as Currency* (Sep. 7, 2021), www.nytimes.com/2021/09/07/world/americas/el-salvador-bitcoin.html.
 - ⁴ Central Banking, *CAR to Drop Crypto as Legal Tender* (Mar. 27, 2023), www.centralbanking.com/central-banks/currency/digital-currencies/7956294/car-to-drop-crypto-as-legal-tender.
 - ⁵ IRS Virtual Currency FAQs at A39-A40, www.irs.gov/individuals/international-taxpayers/frequently-asked-questions-on-virtual-currency-transactions.
 - ⁶ See Reg. §1.1012-1(c)(2) (stocks and bonds); *P.J. Perlin*, 86 TC 388, Dec. 42,932 (1986) (commodities).
 - ⁷ See 31 CFR section 1010.100(m) ("the coin and paper money of the United States or of any other country that is designated as legal tender and that circulates and is customarily used and accepted as a medium of exchange in the country of issuance") (emphasis added).
 - ⁸ Rev. Rul. 74-218, 1974-1 CB 202 (currency includes "gold, silver, other metals or paper used as a circulating medium of exchange").
 - ⁹ See Rev. Rul. 2019-24, IRB 2019-44, 1004.
 - ¹⁰ See Notice 2014-21, IRB 2014-16, 938 (mining rewards are taxed on receipt). In *Jarrett v. United States*, a home staker sued the IRS for a refund of the tax he paid on his newly minted block rewards, arguing that the rewards were self-created property instead of property received for services. No. 3:21-cv-00419 (M.D. Tenn. 2021). The IRS initially contested Jarrett's refund suit, then granted his refund and successfully sued to dismiss the case on mootness grounds. It is unclear what message, if any, can be gleaned from the IRS' courtroom strategy.
 - ¹¹ See *E. Cesarini*, DC-OH, 69-1 USTC ¶9270, 296 F.Supp 3 (1969) ("title belongs to the finder as against all the world except the true owner"), quoting *Niederlehner v. Weatherly*, 78 Ohio App. 263, 69 NE2d 787 (1946); see also IRS Publication 525 ("If you find and keep property that doesn't belong to you that has been lost or abandoned (treasure trove), it's taxable to you at its FMV in the first year it's in your undisputed possession.").
 - ¹² Rev. Rul. 77-176, 1977-1 CB 77 (oil and gas extraction); *Metz v. United States*, No. 1446 (E.D. Ky. 1962) (animal breeding); IRS Publication 225, "Farmer's Tax Guide," at 61 (grain harvesting and animal breeding); Rev. Rul. 86-24, 1986-1 CB 80 (animal breeding).
 - ¹³ The safe harbor also requires the transaction to be "of a kind customarily consummated at such place." Trading generally appears to satisfy that requirement. See Jason Schwartz, *The Taxation of Decentralized Finance*, Tax Notes, Feb. 7, 2022, p. 791, available at www.friedfrank.com/uploads/siteFiles/Publications/Schwartz%20%2802-07-2022%29.pdf.
 - ¹⁴ Rev. Rul. 73-158, 1973-1 CB 337 ("The word 'commodities' is used in Code Sec. 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.").
 - ¹⁵ See generally James R. Brown & Franziska Hertel, *Virtual Currencies and the Commodity Trading Safe Harbor*, Tax Notes, Jun. 18, 2018, p. 1731.
 - ¹⁶ Commodities Exchange Act section 2(a)(1), 7 USC section 2.
 - ¹⁷ See, e.g., LTR 8813012 (Dec. 23, 1987) (Type 1 crude oil was a commodity even though futures in only Type 2 traded on a U.S. exchange); LTR 8850041 (Sep. 19, 1988) (foreign currencies were commodities, whether or not listed on a U.S. exchange); ILM 201132021 (for Code Sec. 475, natural gas is a commodity, electricity "most likely" is a commodity, water is "probably" a commodity, and Fuel Source A "may be" a commodity).
 - ¹⁸ See HR Rep. No. 77-2333, at 118 (1942) (the language "of a kind customarily dealt in on an organized commodity exchange" was intended to clarify the meaning of the term "commodities" by "providing that goods and merchandise in the ordinary channels of commerce are not within the scope of this term."); S. Rep. No. 77-1631, at 154 (1942) (same).
 - ¹⁹ H.R. Rep. No. 2475, 74th Cong., 2d Sess. 9, 21 (1936).
 - ²⁰ See generally Jason Schwartz, *Squaring the Circle: Smart Contracts and DAOs as Tax Entities*, Decentralized Law (Jul. 29, 2022), www.friedfrank.com/uploads/siteFiles/Publications/Decentralized%20Autonomous%20Organizations%20_%20Decentralized%20Law.pdf.
 - ²¹ Code Sec. 475(e) requires any commodity subject to a mark-to-market election to be actively traded within the meaning of Code Sec. 1092(d)(1). Fungible tokens actively traded on centralized and decentralized exchanges should be treated as actively traded. See Schwartz, *The Taxation of Decentralized Finance*, supra n.13, at 785.
 - ²² See Schwartz, *The Taxation of Decentralized Finance*, supra n.21, at 771 ("Fiat-backed stablecoins might alternatively be treated as debt of the sponsor issued in exchange for a deposit of hard assets.").
 - ²³ Code Sec. 7704(d).
 - ²⁴ *Id.*
 - ²⁵ See n.22, supra.
 - ²⁶ See Code Sec. 1(h)(4)(A)(i).
 - ²⁷ See Schwartz, *The Taxation of Decentralized Finance*, supra n.21, at 771 ("ADRs are treated as beneficial ownership of the foreign company's shares for U.S. tax purposes.²⁹ Treating foreign fiat-backed stablecoins as custodial arrangements generally would cause them to produce ordinary income or loss on sale under Code Sec. 988 instead of capital gain or loss.").
 - ²⁸ Technically, many LP tokens are represented by NFTs. However, the look-through analysis espoused in Notice 2023-27 applies only for determining whether an NFT is a Code Sec. 408(m) collectible.
 - ²⁹ See generally Jason Schwartz, *The Latest DeFi Alpha Is Tax-Optimized Staking*, Decentralized Law (May 25, 2022), www.friedfrank.com/uploads/documents/cc68fd4ecd02c64da95a5c0752355f73.pdf.
 - ³⁰ See generally Jason Schwartz, *Squaring the Circle: Smart Contracts and DAOs as Tax Entities*, supra n.20.
 - ³¹ *Id.*
 - ³² See generally Jason Schwartz, *Reading the Tea Leaves—What Enforcement Actions Mean for the U.S. Taxation of Crypto*, Fried Frank Regulatory Intelligence (Feb. 15, 2023), www.findknowdo.com/news/02/15/2023/analysis-reading-tea-leaves-what-enforcement-actions-mean-u.s.-taxation-crypto.



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