SAINT LOUIS UNIVERSITY SCHOOL OF LAW
Legal Studies Research Paper Series

No. 2023-14

Common Sense Recommendations for the Application of Tax Law to Digital Assets

Linda M. Beale
Wayne State University Law School

Jeremy Bearer-Friend
George Washington University Law School

Jennifer Bird-Pollan
University of Kentucky J. David Rosenberg College of Law

Samuel D. Brunson
Loyola University Chicago School of Law

Luís Calderón Gómez
Yeshiva University - Benjamin N. Cardozo School of Law

Bryan Camp
Texas Tech University School of Law

Adam Chodorow
Arizona State University (ASU) - Sandra Day O'Connor College of Law

Mark Cochran
St. Mary's University School of Law

Lin William Cong
Cornell University - Samuel Curtis Johnson Graduate School of Management; National Bureau of Economic Research (NBER)

Matthew Foreman
Falcon Rappaport & Berkman LLP

Phil Gaudiano
Polygon Advisory Group

I. Richard Gershon
University of Mississippi - School of Law

Nathan C. Goldman
North Carolina State University - Department of Accounting

Jillian Grennan
University of California, Berkeley, Haas School of Business, Institue for Business and Social Impact

Megan Justice
Crayon Advisory, LLC

Young Ran (Christine) Kim
Yeshiva University - Benjamin N. Cardozo School of Law

Herbert I. Lazerow
University of San Diego School of Law

Tao Li
University of Florida - Department of Finance, Insurance and Real Estate

Lawrence Lokken
University of Florida College of Law

Omri Y. Marian
University of California, Irvine School of Law

Orly Mazur
Southern Methodist University - Dedman School of Law

Stephanie Hunter McMahon
University of Cincinnati - College of Law

Tyler Menzer
University of Iowa

Matt Metras
MDM Financial Services

Ann M. Murphy
Gonzaga University - School of Law

Henry Ordower
Saint Louis University - School of Law

Amanda Parsons
University of Colorado Law School

Daniel Rabetti
National University of Singapore (NUS)

Alex Raskolnikov
Columbia University - Law School

Tracey M. Roberts
Samford University, Cumberland School of Law

Kerry A. Ryan
Saint Louis University School of Law

Edward A. Zelinsky
Yeshiva University - Benjamin N. Cardozo School of Law

Working Paper, 2023

Common Sense Recommendations for the Application of Tax Law to Digital Assets

Linda Beale, et. al.
Wayne State University Law School

University of Colorado Law Legal Studies Research Paper, Vol. 22, 2023

Common Sense Recommendations for the Application of Tax Law to Digital Assets

Abstract: In response to the Joint Committee on Taxation's July 2023 request for comments on application of various Internal Revenue Code sections on digital assets, we propose a consistent set of rules to apply current law to digital assets. We highlight that the underlying economics and characteristics of transactions should be the primary concern for the application of rules and the valuation of digital assets. We believe any digital asset rules should (1) treat classes of digital assets with unique characteristics differently based on their economics, (2) minimize incentives for users to engage in tax-motivated structuring of transactions, and (3) allow the Internal Revenue Service authority to react to and regulate new classes of digital assets as they are created. We do not believe that the unique features of digital assets are a challenge to applying current law or warrant special tax preferred treatment.

Keywords: Digital Assets, Public Policy, Joint Committee on Taxation, Tax, Law, Internal Revenue Service, Cryptocurrency

JEL Classifications: M49, H20, K34, G18, O38

Re: Response to Request for Information Regarding the Taxation of Digital Assets

Dear Chair Wyden and Ranking Member Crapo,

We are submitting this report (the "Report") in response to your letter dated July 11, 2023 (the "Letter"). In your letter you have asked members of the Digital Asset Community to assist your committee "to better understand how Congress can address the tax challenges and opportunities presented by digital assets."

We are a group of academic researchers and tax practitioners who are interested in the topic of taxation of digital assets.[1] A full list of signatories appears at the end of the Report. This Report reflects solely the views of the authors and the signatories, and not those of their employers and affiliations. Affiliations are provided for identification purposes only.

For brevity, we address the issues we believe are among the most important raised in your Letter.

<u>Contents</u>

We have not addressed each and every question in your Letter.

I.   <u>Summary of Recommendations</u>

Digital assets should be taxed fairly and efficiently, not in accordance with the special interest demands of the digital assets industry. This Report makes the following recommendations:

- That Congress act to offer detailed and thorough rules regarding how to value various digital assets, especially those that are not actively traded, and allow such rules the flexibility to be updated and modified through administrative guidance;
- That Congress act to offer detailed and thorough definitions of the various technologies, transactions, and terminology employed in the digital assets environment, and allow such definitions the flexibility to be updated and modified through administrative guidance;

---

[1] The primary drafters of this Report are Professor Jillian Grennan, Professor Omri Marian, PhD Candidate Tyler Menzer, and one practitioner, Matthew E. Foreman.

- To permit certain traders of digital assets to report their income on a mark-to-market basis either via mandatory rules for certain taxpayers, or via election;
- To permit a digital-asset trading safe harbor similar to the safe-harbors prescribed for trading in securities and commodities in Section 864(b)(2) of the Internal Revenue Code ("IRC")[2];
- To employ a comprehensive view of economic substance to prevent the realization of artificial losses, or the artificial deferral of income recognition. In particular, we strongly urge Congress to apply IRC Sections 1091 (the wash sales rules) and 1259 (the constructive sales rules) to digital assets;
- To require validators of digital asset transactions to recognize income on validation rewards at ordinary rates upon the receipt of such rewards, consistent with Rev. Rul. 2023-14[3]; We believe this is what the law currently demands, and we see no policy justification to change such outcome.
- To **not** allow a *de minimis* exclusion for income for personal transactions in digital assets (similar to Section 988(e) of the IRC in the context of non-functional currency); and
- To require detailed and robust valuation of gifts and charitable contributions made with digital assets, as well as detailed and robust substantiation for all gifts and charitable contributions of digital assets.

II. A Preliminary Note Regarding the Valuation of Digital Assets

Although we discuss many of the specific questions raised in the Letter below, we begin by addressing two points that we view as central to any coherent tax policy on digital assets that we believe should guide the creation and application of tax laws in such context.

We begin with the issue of valuation. The question of how traders, governments, businesses, charitable organizations, and others determine the value of a digital asset is central to many of the IRC sections that are being examined. At its face, this seems like an easy question, as the value of digital assets such as Bitcoin or Ether is readily available and identifiable. Both are actively traded on dozens of centralized and decentralized exchanges as well as directly on the blockchain. Recent transactions between a willing buyer and willing seller for fungible assets are the gold standard for determining the current value of those assets. Several digital assets have daily volumes measured in billions of dollars. There is generally little disagreement about the value of those types of digital assets.

However, focusing on the largest, most liquid, and highly traded digital assets masks the complexity of regulating the entire digital asset space. Digital assets encompass not only liquid, fungible digital assets but also illiquid or non-fungible assets.[4] A digital asset can represent anything from an entry on a ledger, a contract, a claim on another asset, art, or a seemingly endless myriad of assets, entities, and agreements. The laws governing digital assets must not treat digital assets as a single class of assets, but account for the underlying characteristics of each individual digital asset. We believe that, for tax purposes, we should value an actively traded fungible digital asset at its market price, where available. However, laws and regulations

---

[2] All references to sections refer to the Internal Revenue Code of 1986, as amended, unless specifically stated otherwise.

[3] Rev. Rul. 2023-14, 2023-33 I.R.B. 484 (Aug. 14, 2013)

[4] Cong, Lin William, and Yizhou Xiao. *Categories and functions of crypto-tokens*, THE PALGRAVE HANDBOOK OF FINTECH AND BLOCKCHAIN (2021): 267-284.

should also consider several additional factors that are unique to digital assets. Unlike in traditional markets, reported trading values and volume are often fake, even on some large digital asset exchanges. Research has shown that on some exchanges between 70-97% of volume may be fake in the sense it constitutes wash trading.[5] For large, regulated exchanges in financial markets, the ability of any single user (or even the exchange itself) to create fake volume or transactions by trading with themselves is limited. However, it is almost trivially easy to engage in transactions which may appear as sales between two unrelated parties but are actually sales between the same individual or entity due to the anonymity of most blockchain wallets. This anonymity makes determining the true volume of a digital asset a key factor in whether a digital asset is actively traded and has an easily identifiable price. Rules around valuation should be cautious in defining what constitutes actively traded to minimize market-timing and valuation manipulation.

Second, as many proponents of digital assets will attest, digital assets have unique features that do not exist in traditional financial markets. These features represent some challenges in fitting digital assets into traditional financial markets and tax rules. In traditional markets, it is nearly impossible for an individual to create a new publicly traded security. In the digital asset space, a user can create a new digital asset and trade it publicly within days or even hours. Additionally, the attributes of these newly created digital assets can be tailored to specific uses. In traditional markets, if a trader would like to invest in Microsoft, they must generally buy Microsoft stock, and the trader cannot easily create a new stock which would give the same exposure to Microsoft without navigating a mature legal schema. However, with digital assets, users can, and have, created new digital assets that have nearly identical attributes through the use of smart contracts. For example, although Bitcoin is a digital asset itself, there also exists wrapped Bitcoin (wBTC), which has the same underlying exposure and economic qualities of Bitcoin. This ability to create new tokens with similar economics offers traders significant opportunities to structure transactions in such a way that they receive tax favorable treatment without meaningful changes in the underlying economics.[6] A key tenet of good tax administration is applying the same tax treatment for two transactions which are economically the same.[7] Digital assets represent challenges for law writers to ensure that there are no incentives for traders to engage in financial structuring to avoid taxes.

We next more specifically address several of the questions put forth by Senator Wyden and Senator Crapo in the Letter.

III.   Marking-to-Market for Traders and Dealers (IRC Section 475)

We believe that taxpayers should be allowed to elect mark-to-market treatment for actively traded digital assets under Section 475 and suggest treating actively traded digital assets as commodities for the purpose of Section 475. A primary concern with digital assets is the complexity of tax reporting with regards to digital assets. This complexity has created a market

---

[5] Gu'enol´e Le Pennec, Ingo Fiedler, & Lennart Ante, *Wash Trading at Cryptocurrency Exchanges*, 43 FIN. RESEARCH LET'S. 1 (2021); Lin William Cong, Xi Li, Ke Tang, & Yang Yang, *Crypto Wash Trading*, NBER WORKING PAPER 30783 (2022); Dan Amiram, Evgeny Lyandres, & Daniel Rabetti, Cooking the Order Books: Information Manipulation and Competition among Crypto Exchanges, WORKING PAPER (2022).

[6] There are numerous provisions in the Code that prevent changes in tax consequences without a significant change in the underlying economics, such as IRC §§751, 1091, 7701(o).

[7] For example, see IRC §871(m) (applying the same tax treatment to non-residents' whether they receive dividends or "dividend equivalent" payments).

for companies to provide tools which help taxpayers calculate their digital asset gains for a fee.[8] However, even these dedicated services cannot handle complicated reporting 100 percent of the time, leading to large differences between the calculations of different services or implausible estimates of gain.[9] The complexity of digital assets has not only added additional costs and burdens on taxpayers, but the IRS has also sought contracts with companies to assist in blockchain analysis.[10] By allowing traders to elect mark-to-market there can be significant simplification for both traders and tax authorities.

IV.   Trading Safe Harbor (IRC Section 864(b)(2))

We reserve judgment on whether it is in the interest of the U.S. government to encourage foreign activity related to digital assets in the United States. However, we believe actively traded digital assets should not be treated any worse than other classes of actively traded assets such as securities and commodities. As such, the trading in actively traded digital assets should not constitute a U.S. trade or business if a taxpayer trades for its own account.[11] When a taxpayer is not trading for its own account, then trading in actively traded digital assets should not constitute a U.S. trade or business, unless trading is directed through a fixed U.S. place if business.[12]

As discussed above,[13] we believe taxpayers should be allowed to elect mark-to-market accounting with respect to actively traded digital assets. If actively traded digital assets are treated as commodities for purposes of IRC 475, we see no reason not to treat them as such for purposes of the safe harbors of IRC Section 864. If digital assets are not treated as commodities as a general matter, we would urge Congress to enact a separate trading safe-harbor for actively traded digital assets. The outcome would be the same, and we see no functional difference between the two options for the purpose of IRC Section 864.

V.   Wash Sales (IRC Section 1091) and Constructive Sales (IRC Section 1259)

Given the related nature of both the Constructive Sale and Wash Sale rules, we have chosen to address the related aspects of both questions together.

Application of economic substance (IRC Section 7701(o)) to wash sales and constructive sales of digital assets?

We believe that economic substance should be applied to determine the tax outcomes of a digital asset transaction. In particular, for a transaction to have economic substance there should be an expectation of changes in economic position. Digital assets allow traders to engage in certain types of transactions that would not generally be possible in traditional financial markets. For example, blockchain technology allows traders to take out a loan of a digital asset and return the digital asset at the exact same time (a 'flash loan').[14] These flash loans are borrowed and

---

[8] *See*, *e,g,*, https://koinly.io/; https://www.cointracker.io/; https://coinledger.io/; https://cointracking.info/
[9] Some practitioners have shared their experience in this context publicly. *See*, *e.g.*, https://twitter.com/EmDeeEm/status/1570050851586056193?s=20, https://twitter.com/nyoungdumb/status/1621606432649973761?s=20
[10] Justin Silen, *IRS Seeks Contractors to Improve Crypto Compliance*, HIGHER GOV (Jun. 13, 2023). https://www.highergov.com/news/irs-seeks-contractors-to-improve-crypto-compliance-1723776/
[11] I.R.C §864(b)(2)(A)(ii), (b)(2)(B)(ii)
[12] I.R.C. §864(b)(2)(C)
[13] *See*, discussion *Supra* at part III.
[14] Alyssa Hertig, *What is a Flash Loan?*, COINDESK (Jan. 13, 2023) https://www.coindesk.com/learn/what-is-a-flash-loan/

returned with the exact same blockchain transaction and thus we would view them as never having economic substance because there is no risk of loss and no time between different parts of the transaction. Moreover, as noted above,[15] the ease with which digital assets can be created, sold, and bought by taxpayers creates new issues that are important in determining economic substance since it is functionally easy to create distinct digital assets that may have the same economic properties as others.

Application of IRC Section 1091 & IRC Section 1259 to digital assets

We believe that both IRC Sections 1091 and 1259 should apply to digital assets. Primarily, we believe that exempting digital assets from the wash sale and constructive sale rules amounts to subsidizing volatile assets and opening the door for tax avoidance. Digital assets are historically much more volatile than stocks or other financial assets. This means that an exemption from these rules for digital assets not only allows traders to engage in economically meaningless transactions to reduce taxes, but the ability of traders to do so is greater than for traditional financial assets such as stocks. Exempting digital assets would have the effect of a government subsidy on the trading of digital assets and encouraging sham transactions that only exist for the purpose of reducing in taxes.

Researchers estimated that if the United States had implemented wash sale rules in respect of certain digital assets, it could have raised billions of dollars in 2018 alone,[16] while the Congressional Research Service reported that applying wash sale and constructive sale rules more broadly and apply them to digital assets, could raise over $16 billion over the ten-year budget window.[17] There is also evidence that significant volume of all cryptocurrency trading is attributable wash trading.[18]

As noted above,[19] the ability to create new digital assets poses additional challenges to implementing wash and constructive sale rules. We believe that when applying IRC Sections 1091 and 1259 to digital assets, these unique features should be considered. We are not ignorant of the criticisms of applying wash sales rules to digital assets. One primary concern would be that the reporting of wash sales would add complexity and record keeping to an already complex digital asset ecosystem. This criticism is not unwarranted, and we previously noted the complexity of the tax reporting system for digital assets in our earlier response to the questions about mark-to-market accounting.[20] Here, we wish to highlight the interconnectedness of the wash sale rule, constructive sale rule, and the mark-to-market rule. For many taxpayers who trade at high volumes, a mark-to-market election would be beneficial from a record keeping standpoint and allow high volume traders to mitigate the vast majority of the reporting and record keeping burden that the wash sale and constructive sale rules may place on them. Thus, an additional advantage of allowing mark-to-market election in the context of actively traded digital assets is that it would eliminate the burden of wash sale rules compliance for the group of taxpayers for whom the rules are most costly. Under IRC Section 475(d), traders who are subject

---

[15] *See*, discussion *Supra* at part II.

[16] Lin William Cong, Wayne Landsman, Edward Maydew, & Daniel Rabetti, *Tax Loss Harvesting with Cryptocurrencies*, J. OF ACC'TING & ECONS. (Forthcoming, 2023).

[17] CONGRESSIONAL RESEARCH SERVICE, TAX PROVISIONS IN THE "BUILD BACK BETTER ACT:" THE HOUSE WAYS AND MEANS COMMITTEE'S LEGISLATIVE RECOMMENDATIONS (Sep., 2021).

[18] *Supra* note 5.

[19] *See*, discussion *Supra* at part II.

[20] *See*, discussion *Supra* at part III.

to mark-to-market accounting are exempt from the wash sales rules, and we believe a similar exemption should be allowed to taxpayers who elect mark-to-market accounting for digital-assets.

We would note that the current wash sale rules, applicable to stocks and other financial assets, are also burdensome and complex. Although brokerage firms calculate the majority of the adjustment for wash sales, the system is not perfect. For example, many taxpayers receive corrected tax forms from their brokerage firm to adjust wash sales amounts when a taxpayer sells stock at the end of one year and purchases the same stock back in the next year. There is also little inter-brokerage reporting, and although selling Microsoft stock for a loss at brokerage firm A, and then buying the same stock at brokerage firm B should trigger the wash sale rules, the reporting and tracking that is required to be done by individuals is burdensome and many individuals may not understand they have a reporting requirement beyond what is reported by third parties. Although we view these as challenges to wash sale reporting, these challenges are not unique to digital assets and should not negate the importance of implementing the wash sale rules for digital assets.

VI.   Timing and Character of Income Earned from Staking and Mining (IRC Section 61)

In this section we only address the taxation of validation rewards in the form of newly issued tokens received by validators (hereinafter "validation rewards" or "block rewards"). Validators may also receive transaction fees from the parties to the validated transactions. The latter are clearly fees for service and as such must be taxed as ordinary income at the time of receipt. We are aware of no argument to the contrary.

Under the most basic tenets of income tax policy, validation rewards should be taxed when the rewards come under the validators' dominion and control. This policy is not only in line with basic income tax concepts, but also the view of the IRS[21], multiple scholars[22], professional organizations[23], and policy experts[24]. We will first address the reasons for which sound income tax policy clearly requires such an outcome. Second, we will address some of the common arguments made by industry advocates – arguing for deferral of taxation of block rewards – explaining why they are wrong.

Policy Arguments for Current Taxation

The most basic concept underlying income tax policy is that taxpayers pay tax based on their "ability to pay". When validators receive a validation award, they are better-off financially, so

---

[21] Rev. Rul. 2023-14, 2-23-33 I.R.B. 484.

[22] *See*, *e.g.*, Omri Marian, *Law, Policy, and the Taxation of Block Rewards*, 175 TAX NOTES FEDERAL 1493 (Jun. 6, 2022); Henry Ordower, *Block Rewards, Carried Interests, and Other Valuation Quandaries*, 175 TAX NOTES FEDERAL 1551 (Jun. 6, 2022); Amanda Parsons, *Cryptocurrency, Legibility, and Taxation*, 72 DUKE LAW JOURNAL ONLINE 1 (2022).

[23] New York State Bar Association Tax Section, *Cryptocurrency and Other Fungible Digital Assets*, No. 1461 (Apr. 18, 2022), available at: https://nysba.org/app/uploads/2022/04/1461-Report-on-Cryptocurrency-and-Other-Fungible-Digital-Assets.pdf.

[24] See, *e.g.*, Michael Kaercher & Taylor Cranor, *Taxing Digital Assets: What's at Stake?*, NYU LAW TAX LAW CENTER (Aug. 4, 2022), available at: https://law.nyu.edu/sites/default/files/Taxing%20Digital%20Assets%20-%20What%27s%20at%20Stake.pdf; John Bull, *A Problematic Crypto Tax Break Introduced in the Senate*, TAX POLICY CENTER (Jun. 2, 2022), available at: https://www.taxpolicycenter.org/taxvox/problematic-crypto-tax-break-introduced-senate.

their ability to pay increases. Assume taxpayer A and taxpayer B both start the year with 5 identical digital tokens. Taxpayer A participate in the validation process, but taxpayer B does not. At the end of the year taxpayer A has 6 tokens (as a result of receiving one reward token), while taxpayer B still holds 5 tokens. All else being equal, taxpayer A's ability to pay is higher than taxpayer B's, so taxpayer A should pay more tax than taxpayer B. It is that simple. Taxing both taxpayers equally would mean that the less affluent taxpayer pays a higher effective tax rate.

Similarly, absent convincing policy justifications, taxpayers who are similarly situated from a financial point of view should pay the same amount of tax. All else being equal, if taxpayer A receives $1,000 worth of validation rewards, and taxpayer B receives $1,000 worth of Apple Inc stock, they should both be subjected to the same tax burden on the $1,000 they received. The form of their earnings should not matter, as they are both equally well-off. There is no question that taxpayers who receive earnings in-kind must include the earnings in income in the year they are received. Treating validation rewards differently will permit such rewards a preferential treatment over all other forms of earnings. We are unaware of any serious policy argument under which digital assets should receive such an extreme preferential tax treatment.

Finally, non-taxation at the time of receipt raises a serious concern for abuse. If the digital assets industry receives its wish list with respect to block rewards – currently reflected to a significant extent in the Lummis-Gillibrand bill[25] – validators may never pay taxes on their validation rewards. Here is how it might look:

1. If rewards are not taxed upon receipt, a validator has no tax liability upon earning the rewards.
2. Potentially, a validator can hold on to the rewards until death. If the rewards are treated as capital assets – as the digital assets industry demands – at death the rewards will receive a step-up basis[26], which means no one will ever pay tax on the rewards, even upon disposition.
3. During their lifetimes, validators could also use the rewards for consumption with no tax consequences. If – as the industry demands and as reflected in the Lummis-Gillibrand bill – tokens receive exemption from taxation for personal transactions (similar to non-functional currencies)[27], then validators could simply use previously non-taxable rewards for everyday transactions and consume without ever paying tax on the rewards used in such transactions. This makes validation rewards better than cash, which is taxable upon receipt, leaving only its after-tax value available for consumption.
4. If constructive sales rules[28] do not apply to block awards – as under current law and left untouched by the Lummis-Gillibrand bill – validators could also liquidate their rewards through prepaid contracts and short-against-the-box transactions[29], with no tax consequences. They can then hold the position open until death, at which point they will receive step-up in basis.

---

[25] Lummis-Gillibrand Responsible Financial Innovation Act, S. 2281, 118th Cong. (2023)

[26] I.R.C. §1014.

[27] *See*, the Lummis Gillibrand bill, *supra* note 25, at §801.

[28] I.R.C. §1259. *See*, discussion *supra* at part V.

[29] For a review of how such planning might work, see Ted R. Stotzer, *Rebirth of the 'Estee Lauder Transaction' Using Virtual Currencies*, 160 TAX NOTES 1389 (Sep. 3, 2018).

It is important to note that the digital asset industry wish list is not a list of separate, unrelated tax items. When viewed together, it is offering an unprecedented tax preference to validation rewards. Where validators use their rewards for personal consumption, or hold on to them until death, the receipt of block rewards may be the *first and last* opportunity to tax such rewards. This example is even conservative in showing the potential abuse. As we note, the creation of new digital assets with unique properties is trivial and opens the door for even more abuse than might be available with current digital assets.

The policy arguments for taxing validation rewards at the time of receipt are strong because they are simple. Validation rewards offer no serious "new" challenge to our conceptual understandings of income tax policy. You pay tax on income when you receive it, no matter the source.[30] Nonetheless, some in the digital asset community have raised multiple policy arguments against taxation of validation rewards upon receipt. We address the most common arguments below, and show they are, at best, tenuous.

The Policy Argument Against Taxation upon Receipt are Wrong and Self-Contradictory

The "no realization" argument. One frequently made argument is that income from validation rewards should be taxed only upon disposition of the rewards, because this is when income is "realized". We set aside the question of whether income *must* be realized in order to be taxed, because it is irrelevant in the context of block rewards. *Block rewards clearly constitute realized income upon receipt*: Simply put, the validator received tokens they did not have before. The future disposition of such tokens would be *a second* realization event where we would tax the change in value that happened since the original – previously taxable – receipt.

In the absence of statutory exemption, receipt of property is a realization event.[31] When taxpayers receive a dividend, in cash or in-kind, it is a realization event. In fact, when taxpayers receive any new property, it is a realization event. Thus, when taxpayers receive a new digital token, it is a realization event. The argument that the receipt of validation reward does not constitute realization represents a misunderstanding of the meaning of the term *realization*.

The "no-realization" argument is also wrong as a matter law. In *Cottage Savings* the Supreme Court determined taxpayers realize income when they exchange an item for something that is "materially different".[32] In the context of block rewards, taxpayers exchange something (whether it is their time, labor, or computer power) for something materially different: a new digital token. The legal argument that receipt of new token does not constitute a realization event is a fundamental misconstruction of the realization doctrine.

The "creator" argument. Another argument frequently made by industry advocates is that validators "create" the reward tokens they receive. Under this argument, similar to other "creators" of property who are not taxed until disposition of the produced goods – farmers and bakers are frequently used analogies – validators should not be taxed until they dispose of the rewards.

There are two problems with this argument: First, validators do not create new tokens as a matter of fact. They do not program tokens into existence. They follow a fixed protocol written by

---

[30] Section 61(a); *Commissioner v. Glenshaw Glass Co.*, 348 U.S. 426 (1955).

[31] *See*, *e.g.*, I.R.C. §83.

[32] *Cottage Savings Association v. Commissioner*, 499 U.S. 554 (1991)

someone else and show none of the characteristics of a "creator" of property: Validators cannot decide whether the property is created or not. If validators decide not to participate in the validation process, the exact same individually identifiable tokens will still be issued. In addition, validators cannot determine what are the properties of the tokens they "create". They have no say on the characteristics of the "created" token. Validators cannot even decide *how* tokens are created, as the result of the fact that the protocol is fixed. At best, validators pull a lever on machine they do not own and keep some of the things the machine makes. In any other context, this will clearly constitute taxable income. When one cannot control whether property is created, decide how the property is created, or control the characteristics of the said property – one is not a creator of that property.

Second, even if validators do "create" new tokens, their situation is markedly different than farmers and bakers. Bakers and farmers produce perishable goods for which there is no active public market. When farmers pull a carrot out of the ground, they cannot tell exactly its worth, or whether it will be sold at all. A cake is unique in the sense it is never exactly the same as a different cake produced by another baker. Bakers' and farmers' skills and experience determine the characteristics, qualities, and as a result – the individual values of their products. In such a case, there are two justifications to defer taxation until disposition: The first is administrative. Disposition is the only time at which we can confidently know the value of the asset – when it is traded for cash. Second, it seems burdensome to impose tax on assets that are, by their nature, illiquid. One cannot use carrots and cakes to pay for goods and services. Farmers and bakers do not have open public markets where they can effortlessly liquidate their products whenever they desire.

These justifications do not apply to most validation rewards: within blockchain systems, rewards tokens are identical regardless of who "creates" them. For example, all Tezos tokens are exactly the same, no matter who "bakes" them. Like securities, they are non-perishable and do not suffer wear and tear. Their useful life is eternity. Moreover, most of the rewards are actively traded and have a clearly established market value, determined by thousands of contemporaneous transactions involving dispersed unrelated parties. Validators can use their reward tokens for consumption, or easily liquidate them for cash at a known value anytime they choose. In such a case, any justification to defer taxation until disposition does not apply.

The inflation argument. Another frequent argument made by digital assets proponents to defer taxation, is that validation carries with it an inflationary effect, due to the addition of new tokens to the blockchain eco-system. As a result, the argument goes, taxation at the time of receipt of validation rewards is unfair, because it taxes validators on more than the economic value they receive. This argument is wrong for several reasons.

First, many digital asset markets are highly liquid active markets. The mechanisms by which new tokens are added to the eco-system are publicly known. In an efficient capital market, the price of an asset accounts for such mechanisms. To the extent inflationary pressures exist, they are reflected in the pricing of tokens, including newly-issued tokens. The argument made by proponents of deferral in this context is essentially that the price set by an actively traded market is not a true reflection of the assets' fair market value. This argument seems illogical to us and leads to questions why its proponents would invest in an asset that will by its very terms continue to decrease in value.

Second, proponents of the inflation arguments sometime analogize the creation of new tokens to stock splits in corporations, which are generally non-taxable.[33] This analogy is inapposite. Stock in a corporation represents shareholders' interest in the underlying assets and profits of the corporation. When shares are proportionally split, there is no change in shareholders' interests. Digital assets, on the other hand, represent interest in nothing other than the belief they are valuable. If a reward token has value, the owner is better off at the time of the receipt by the amount of the fair market value of the token.

In addition, even if one is amenable to the stock-split analogy, it is clearly inapplicable when stock distribution is non-proportionate, and we indeed tax non-proportional stock dividends under current law.[34] Validation rewards are almost always non-proportional. In most blockchain networks, not all owners of digital assets participate in validation efforts. Not all who participate in the validation process win an award. If one believes the stock split analogy, and we tax disproportionate distribution of shares, then we should absolutely tax disproportionate distribution of validation rewards.

Third, many blockchain systems are specifically designed with built-in mechanisms to prevent inflation, by reducing the supply of new currencies over time. [35] If a system is designed to withstand inflation, then the inflation argument against taxation seems particularly weak to us.

Finally, the same inflation argument could theoretically be made with respect to any type of property. When a taxpayers earns $100 of cash during the year, they report $100 of income on that year's tax return. The fact that the buying power of $100 may significantly decrease due to inflation by the time that taxpayer uses the earnings for consumption does not change this result, and for a good reason: it would be impossible to administer such an income tax system. Instead, we offer inflation adjustments where we deem it necessary. For example, we annually adjust our income tax brackets to prevent "bracket creep".[36] We see no policy argument to offer digital assets preferable inflation-related tax treatment over to any other asset, including cash.

The "capital shift" argument. Deferral proponents sometimes justify their position by arguing that there is no capital shift when validators receive their rewards. Stated differently, since validators receive their rewards from "no one", there is no income.[37]

There are two responses to this argument. First, this argument offers a radical departure from our century-long legal and philosophical understanding of the definition of income. Income is measured by the taxpayer's affluence at the end of the taxable period, compared with the taxpayer's affluence at the beginning of the taxable period. The most basic financial definition of income is that it equals the aggregate amount of the taxpayer's consumption and net change in savings during the taxable period.[38] This has been the financial definition of income since the

---

[33] I.R.C. §305(a).

[34] I.R.C. §305(b).

[35] Such as Bitcoin halving. https://www.coinbase.com/learn/crypto-basics/what-is-a-bitcoin-halving.

[36] I.R.C. §1(f).

[37] For an example of such argument, see Brief in Support of Taxpayer Joshua Jarrett's 1040-X Amended Return and Claim for Refund, *Jarrett*, No. 3:21-cv-00419 (M.D. Tenn. July 31, 2020), at 9.

[38] Robert Murray Haig, *The Concept of Income—Economic and Legal Aspects*, in THE FEDERAL INCOME TAX 1–28 (Robert Murray Haig ed., 1921); HENRY C. SIMONS, PERSONAL INCOME TAXATION 50 (1938) (income is equals the sum of a taxpayer's consumption and savings).

birth of modern income taxation. "Income" has never required that we identify a counterparty from which the taxpayer received something.

Legally speaking, the Supreme Court interpreted income to constitute "undeniable accessions to wealth, clearly realized, and over which the taxpayers have complete dominion"[39]. Validation rewards clearly constitute accession to wealth. If they did not, no one would participate in the validation process. As we explained above,[40] validation rewards are clearly realized. Thus, validation rewards must be included in income at the time they come under the taxpayer's dominion, as the IRS reasonably ruled.[41] There has never been a philosophical or legal theory that defined income based on the requirement that value received from a discoverable second party.[42]

The identity of a counterparty may be relevant for the classification of a transaction and may be important for *how* we tax that income. But there is no question that accession to wealth of a taxpayer is *income to that taxpayer*. The capital shift argument is an attempt to reinvent the definition of income, which is not based on any commonly used theory of income. In addition, there are examples where income is taxable to one party to a transaction, even though no deduction (or a limited deduction) is permitted to the other party.[43]

Second, the capital shift argument exposes a logical incoherence of the inflationary argument against immediate taxation of validation rewards. If a new reward token has value, and existing tokens diminished in value as a result of that new token's issuance, then – by definition – there is a transfer of value from owners of old tokens to the recipients of new tokens. If there is inflation, there must be a capital shift between identifiable parties (old and new token owners). If there is no transfer of value, what is the source of inflation? You cannot have it both ways.

The Open Transaction argument. Proponents of digital assets sometimes argue we cannot tell if validators – and in particular stakers – are better-off at the time they receive staking rewards. Because the staked tokens' value may decrease by the time the stakers withdraw them, it is impossible to tell if accession to wealth occurs in the aggregate. Only at the time of disposition, we can tell if the stakers are indeed "better off". This argument seeks to analogize staking to an "open transaction" similar to a forward contract or an option, where the long-party is not taxed until the contract settles. This analogy is weak and illogical.

First, at the time validators receive rewards, there is no open transaction with respect to the rewards received under any reasonable interpretation of the term "open transaction". The transaction is closed, the value received is known, and income tax should be paid. Validators are free to liquidate the gain from their rewards at the very minute of receipt by selling them for cash. No one is forcing them to hold on to the rewards, and the fact that a decision to hold *could* be a poor decision should not require a special set of rules. Validators can also withdraw their staked tokens and sell them. No one is forcing validators to participate in the validation process, the same way no one forces a stockholder to hold on to the stock after dividend is distributed. A

---

[39] *Glenshaw Glass*, supra note 30, at 431.
[40] *Supra* notes 31-32 and accompanying text.
[41] *See*, *supra* note 21.
[42] Such as treasure trove, which is taxable per Treas. Reg. Section1.61-14(a); Rev. Rul. 53-61. See also Cesarini v. United States, 296 F. Supp. 3 (N.D. Ohio 1969), aff'd per curiam, 428 F.2d 812 (6th Cir. 1970).
[43] Examples include I.R.C. §§ 274(k), 280E, and 262.

party to a forward contract, on the other hand, cannot terminate the contract unilaterally. It is bound by the terms of the contract with the other party.

Second, arguing that staking is an open transaction – simply because validators are still at risk with respect to their staked amount – leads to ridiculous outcomes. This is analogous to arguing we should not tax dividends if a shareholder holds on to the stock, because the value of the underlying stock may go down at a later time. Or that we should not tax interest on high-yield debt, because there is a risk the borrower may not pay the debt. Or that we should not tax rents from houses located in flood areas, because the underlying house may be flooded and lose value. If a taxpayer owns 5 shares of Intel, and in exchange for allowing her computer to be used in some way she receives another share of Intel, there is no doubt she is taxable at the time of receipt on the value of that one addition Intel share she received. The fact that the value of her total stake in Intel may decline in the future is irrelevant. There is no policy justification to treat staking rewards differently.

Character: Validation Rewards should be Taxed upon Receipt as Ordinary Income, and upon future Disposition as Capital Gains or Loss

When a taxpayer's time and effort generate income, the taxpayer is taxed on that income at ordinary rates. When a taxpayer is a passive participant who enjoys the growth of an underlying investment, that taxpayer is taxed on any appreciation in value at capital gains rates. We do not believe this is a controversial statement.

The same should apply to validation rewards. When gain is earned as result of taxpayers' active participation in the validation process – spending time or computer resources to validate transactions and building the blockchain – they should pay tax on such gains at ordinary rates like any other taxpayer earning any type of income. Once they do, they receive a basis in the tokens equal to the taxable amount. Any future appreciation should be taxed at capital gains rates, like most other assets. To the extent rewards tokens decline in value by the time of disposition, taxpayers are free to claim capital losses, the same as in the case of any other asset. Here too, we see no policy reason to treat digital assets differently.

We note that if one accepts the argument that validators are just like farmers and bakers, then validators should be taxed like farmers and bakers. Farmers and bakers do not pay tax on the products they make until they sell them. But when they do sell products, farmers and bakers are taxed at ordinary rates. If proponents believe that validators' efforts "create" tokens, then tax on disposition of the "created" property should be imposed at ordinary rates. The analogy to bakers cannot only be used only when it is convenient or beneficial.

To summarize, under the most basic principles of income tax policy, validators should be taxed on their validation gain at ordinary rates upon receipt. Any future changes in value should be treated as capital gain and losses, like in the context of any other asset. If one accepts the "creation" theory under which taxation must be deferred until disposition, then all gains and losses should be treated as ordinary gains and losses.

VII. Nonfunctional Currency *de minimis* Exemption (IRC Section 988(e))

Generally, a U.S. Person's functional currency is the US dollar unless another currency is (i) the currency of the economic environment in which a significant part of a taxpayer's activities

conducted and (ii) is used by the taxpayer in keeping its books and records.[44] As such, for most taxpayers, their functional currency is the US dollar. A nonfunctional currency is any currency other than their functional currency.[45] When there is gain or loss on a transaction denominated in a nonfunctional currency, or the gain or loss is determined by reference to a nonfunctional currency, the transaction is bifurcated into two parts by the "netting rule" under Treas. Reg. § 1.988-2(b)(9). First, after translating the amount realized and basis into the functional currency the gain or loss from the underlying transaction is determined, and second the gain or loss that resulted from the movement in the currency exchange rates between the time when the currency was exchanged between functional and nonfunctional currency.

To mitigate recordkeeping requirements for individuals, there is a *de minimis* rule that permits gain from "personal transactions" in which gain does not exceed $200 that occur during the period the individual holds the nonfunctional currency. The most common use of the *de minimis* rule is individuals who spend a short period of time in a foreign country, such as on a vacation or business trip.

Application of a de minimis nonrecognition rule like the rule in IRC Section 988(e) to digital assets

Many of the concerns with tax reporting relating to digital assets relate to the difficulty of reconciling gain and loss due to poor availability of data from exchanges, the ease of moving value between various digital assets and exchanges and determining the amount of the gain or loss due to the speed with which digital assets change in value.

Further, as many digital assets can be divided into seemingly infinite fractions of the full asset and currencies cannot be divided into amounts less than 0.01, any *de minimis* rule should have both a per-transaction amount as well as an annual limitation to prevent individuals from selling portions of digital assets to remain under the *de minimis* nonrecognition rule. Without an annual limitation, avoiding taxes on digital assets would be a question of willingness to structure transactions rather than the actual economic consequences of the transaction. An annual limitation would require the same record keeping as is required under current law.

Succinctly stated, having a *de minimis* rule with an aggregate limitation (which is necessary to prevent abuse) alleviates none of the administrative concerns. Such an exception merely creates the potential for tax preference for individuals who have gains from the sale of digital assets. The policy that stands in the basis of the personal transaction exemption for non-functional currencies is simply inapplicable.[46] We therefore strongly urge against such *de minimis* exemption.[47]

VIII. **Valuation and Substantiation in the Context of Gifts and Charitable Contributions (IRC Section 170(f))**

---

[44] I.R.C. § 985(b)(1)

[45] Treas. Reg. § 1.988-1(c)

[46] *See*, Adam Chodorow, *Bitcoin and the Definition of Foreign Currency*, 19 FLA. TAX. REV. 367, 391-94 (2016) (explaining why it makes little policy sense to extend the personal transaction exemption of IRC §988(e) to cryptocurrencies).

[47] We also note that the non-functional currency analogy cannot just be used when it is convenient. For most taxpayers, exchange gain or loss from trading in foreign currencies is taxed at ordinary rates. I.R.C. §988(a)(1)(A). If digital assets are to be treated as non-functional currencies for the de-minims rule purposes, they should be treated as such for all purposes, and all gains and losses should be ordinary.

Requirement for detailed and robust valuation and substantiation of gifts and charitable contributions made with digital assets

IRC Section 170(f)(11) lays out substantiation rules for charitable contributions. Taxpayers may reduce their federal income tax liability with a deduction for contributions to public charities including donor-advised funds (DAFs), private foundations, and/or other organizations like trusts. Contributions of property with long-term capital gains are generally deductible at their full fair market value. As such, a qualified appraisal for donated property and the completion of Form 8283 are required for donations above $500 that do not meet exemptions.

It could be argued that Bitcoin and Ether donations should qualify for the exception to the appraisal requirement, similarly to publicly traded securities, simplifying the process. But not all digital assets are securities, so simply updating the definition of "Publicly Traded Securities" does not suffice. Specific guidelines for digital assets are needed that outline how they should be valued for the purposes of charitable donations.

The challenges in valuing illiquid assets only increases for assets on private or lower-volume blockchains, and there are more opportunities for abuse, especially when considering incentive for collusion and market timing. Without third-party verification, there's a potential for collusion between the donor and the charity. The charity might be incentivized to agree to an inflated valuation to secure the donation, even though it may never be able to realize that value when it converts the asset. There is also the potential for the donor to attempt to time the market to their advantage by executing documents with a higher valuation by listing a previous date. Given the volatility in digital asset markets, the value of an asset can change significantly in a short period. Exemptions for hard to verify fair market values could result in the use of opportunistic time points for valuation (e.g., as with executive and back-dated options), ultimately, skewing tax deductions. For NFTs, the non-market valuation component can be meaningful. As such, similar to art and collectibles, the same qualified appraisal thresholds at $20,000 and $50,000 should be applied, and digital assets should not be given an exemption or preference.

Finally, it is important to also modify DAF rules in conjunction with digital asset donations.[48] A primary concern is that streamlining digital asset donations to charitable organizations by allowing for exemptions and enabling donors to not pay capital gains taxes could empower crypto "degens" to gamble away money intended for social and environmental causes. DAFs are the fastest growing vehicle for philanthropic giving in the United States. DAFs provide donors with a "give now, decide later" opportunity. Thus, donors can donate at times which are particularly advantageous to them (e.g., when they anticipate a large tax bill), and unlike private foundations, which are required by law to give away 5% of their assets each year, DAFs have no grant mandates. In practice, this means some DAFs can operate much like a venture capital (VC) or mutual fund for years. This helps to explain why Fidelity Charitable Trust is the largest DAF in the United States. It essentially serves as an asset manager taking fees until the "decide later" happens.

Unfortunately, not everyone just parks their money in a mutual fund. Consider that Honest Tea's founder used the funds he donated to his DAF to invest in the seed round of Beyond Meat. This

---

[48] Jillian Grennan, *Social Change through Financial Innovation: Evidence from Donor-Advised Funds*, 3 REV. OF CORP. FIN. STUDIES 694 (2022).

turned out to be a great investment, but this was also a highly risky investment that could have quickly reduced his charitable donation to $0. In the digital asset context, we can foresee a similar feat. Instead of someone who wants to support sustainable agriculture, these are donors who like digital assets. As such, we foresee the digital asset donors using their charitable funds to make outsized bets on their friends or other insiders in the digital asset space at the expense of real charitable giving. We think this is a valid concern and a likely way that the digital asset industry intends to never pay taxes and prop up others in the decentralized domain. As such, we recommend reforming rules to limit speculative investments, especially for non-established digital assets, within DAFs.

To combat potential abuse in the domain of digital asset donations, IRC Section 170(f)(11) guidelines should be updated to specifically address the unique challenges and opportunities presented. First, the Code should stipulate third-party appraisal requirements for digital assets that do not meet established criteria for liquidity, trading volume, and legal recognition, similar to how it does for art and collectibles. Second, for more liquid and well-recognized digital assets, the IRS could allow a simplified valuation process. Third, special attention should be given to modifying rules around DAFs to limit speculative investments in the digital asset space, thereby ensuring that charitable contributions serve their intended philanthropic goals rather than being used as a tax-advantageous investment vehicle for speculative gains. Such changes would offer more clarity to both donors and charities while safeguarding the integrity of the tax system and the philanthropic intent behind charitable donations.

IX.   Conclusion

We present common sense suggestions to the taxation of digital assets. We strongly believe that the regulation of digital assets should be examined as a whole, not as individual separate items. Any changes to policy should be both consistent with current taxation principals and be coherent across the various topics. As we have noted, some arguments for certain tax treatments of digital assets are contradictory and selectively applied only when they are beneficial. When implementing changes to the taxation of digital assets the interconnectedness of rules and provisions in the code should be considered. We also hope that Congress will create rules that acknowledge the diversity in digital assets to not encourage the creation of new digital assets for the sole purpose of circumventing rules or avoiding tax.

Sincerely,

List of Signatories

Name	Affiliation
Linda M. Beale, Professor of Law	Wayne State University Law School
Jeremy Bearer-Friend, Associate Professor of Law	George Washington University Law School
Jennifer Bird-Pollan, Judge William T. Lafferty Professor of Law	University of Kentucky J. David Rosenberg College of Law
Samuel D. Brunson, Professor	Loyola University Chicago School of Law

Luís C. Calderón Gómez, Assistant Professor	Yeshiva University, Benjamin N. Cardozo School of Law
Bryan Camp, George H. Mahon Professor of Law	Texas Tech University School of Law
Adam Chodorow, Jack E. Brown Professor of Law	Arizona State University, Sandra Day O'Connor College of Law
Mark W. Cochran, Professor of Law	St. Mary's University School of Law
Lin William Cong, The Rudd Family Professor of Management & Associate Professor of Finance	Cornell University, SC Johnson College of Business
Matthew E. Foreman, Partner	Falcon Rappaport & Berkman LLP
Phil Gaudiano, CPA, CFO	Polygon Advisory Group
I. Richard Gershon, Professor of Law	University of Mississippi School of Law
Nathan Goldman, Associate Professor of Accounting	North Carolina State University, Poole College of Management
Jillian Grennan, Associate Professor	University of California, Berkeley Hass School of Business
Megan Justice, EA, LTC, Owner	Crayon Advisory, LLC
Young Ran (Christine) Kim, Professor of Law	Yeshiva University, Benjamin N. Cardozo School of Law
Herbert I. Lazerow, Professor of Law	University of San Diego
Tao Li, Bank of America Assistant Professor of Finance	University of Florida, Warrington College of Business
Lawrence Lokken, Hugh Culverhouse Eminent Scholar and Professor of Law Emeritus	University of Florida College of Law
Omri Marian, Professor of Law	University of California, Irvine School of Law
Orly Mazur, Associate Professor	SMU Dedman School of Law
Stephanie Hunter McMahon, Professor of Law	University of Cincinnati College of Law
Tyler Menzer, PhD Candidate	University of Iowa, Tippie College of Business
Matt Metras, EA	MDM Financial Services
Ann Murphy, Professor	Gonzaga University School of Law
Henry Ordower, Professor of Law	Saint Louis University School of Law
Amanda Parsons, Associate Professor	University of Colorado Law School
	National University of Singapore

Daniel Rabetti, S. Dhanabalan Chair in Quantitative Studies & Assistant Professor of Accounting and Finance	
Alex Raskolnikov, Wilbur H. Friedman Professor of Tax Law	Columbia University Law School
Tracey M. Roberts, Professor of Law	Cumberland School of Law
Kerry A. Ryan, Associate Professor of Law	Saint Louis University School of Law
Edward A. Zelinsky, Annie and Morris Trachman Professor of Law	Yeshiva University, Benjamin N. Cardozo School of Law