



## In Response to a “Request for Feedback” from Senate Finance Committee Chairman Ron Wyden and Finance Committee Ranking Member Mike Crapo

**The Honorable Ron Wyden  
Chairman  
Committee on Finance  
U.S. Senate  
Washington, DC 20510**

**The Honorable Mike Crapo  
Ranking Member  
Committee on Finance  
U.S. Senate  
Washington,DC 20510**

September 8, 2023

To Chairman Wyden and Ranking Member Crapo,

The Web3 Working Group, a leading nonprofit organization in the decentralized technology space, educates about and champions the growth and advancement of decentralized physical infrastructure networks (DePIN) and the broader web3 ecosystem. We seek to position the United States at the forefront of emerging web3 technologies.

We express our appreciation for the Senate's initiative to delve into pivotal issues concerning digital assets, a sector that carries significant implications for America's leadership in the web3 space.

Before addressing the precise questions posed by the Senate Finance Committee, we would like to articulate our overarching viewpoints.

It's of paramount importance for the U.S. to remain at the forefront of web3 and associated innovations. The potential and benefits of web3 technologies go beyond merely the creation or management of digital assets.

For example, the DePIN sector has the potential to completely revolutionize how people participate in digital life. Rather than only relying on a small handful of multibillion dollar organizations for services such as edge computing, internet access, cloud storage, social media and content distribution, everyday Americans can participate in these sectors to not only benefit financially, but to end central points of control, addressing many of the concerns about the over centralization of the internet.



A thoughtful approach to the tax treatment of digital assets will not only influence the fiscal dynamics of the web3 industry but can also shape the broader technological trajectory of the country. Keeping this perspective in mind, we believe the taxation principles for digital assets should be grounded in the following tenets:

Tax treatment must be clear and easily comprehensible for both average Americans and businesses.

Enterprises engaged in web3 activities, such as those related to DePIN, should receive tax treatment analogous to comparable sectors, such as the commodity industry.

Activities like mining and staking are pivotal for the future of digital assets, and it's in America's best interest to ensure these activities thrive domestically.

Guided by these principles, the Web3 Working Group puts forth the ensuing remarks.

## **When should the policies behind the trading safe harbor (of encouraging foreign investment in U.S. investment assets) apply to digital assets?**

Given the current landscape of the American taxation system, there exists a significant ambiguity when it comes to the classification and treatment of digital assets. While traditional assets like stocks, securities, and commodities have clear guidelines under the "trading safe harbor" provisions, digital assets remain opaque. This lack of regulatory clarity poses challenges for foreign investors and traders looking to engage with the U.S. digital asset market.

Considering the rapid evolution and unique characteristics of digital assets, it becomes evident that a one-size-fits-all approach, such as treating them like commodities or securities, may not be suitable. Digital assets are not just a medium of exchange or a store of value; their functionalities are expanding, and their nature is continuously evolving. For instance, consider the Akash token, which is a consumptive use token. Unlike traditional assets, Akash tokens are used to access decentralized cloud computing resources on the Akash Network. This exemplifies how some digital assets have moved beyond mere trading instruments to become integral components of decentralized applications and platforms.

Given these complexities and the transformative potential of digital assets, there is a pressing need to establish a distinct "digital safe harbor." This provision would cater specifically to the nuances of digital assets, offering clarity and flexibility to stakeholders and ensuring that the U.S. remains at the forefront of the digital asset revolution.

## **Should IRC Section 1091 apply to digital assets? Why or why not?**

The economic substance doctrine serves as a foundational principle when considering the taxation implications of various transactions. This doctrine stipulates that for a transaction to possess "economic substance" and thus be eligible for tax benefits, it must:

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- Change the taxpayer's economic position in a meaningful way apart from federal income tax effects (Objective Test).
  - Have a substantial purpose other than federal income tax benefits for the taxpayer to enter the transaction (Subjective Test).

With this framework in mind, we delve into the question of whether the Wash Sale Rule, defined under IRC Section 1091, should be applied to digital assets. Digital assets, by their nature, are marked by high volatility, low trading costs, and the potential for significant returns if held during favorable periods in their market cycles. It's not uncommon for investors, particularly those new to the digital asset domain, to sell their assets during a price decline, driven by fear or uncertainty. However, as the asset's price starts to rebound, these investors might opt to repurchase the asset, occasionally at a higher price than their initial selling point. This behavior isn't typically motivated by a mere intention to generate a tax loss but is a genuine financial decision in a volatile and often unpredictable market.

Given the characteristics of digital asset trades, it can be argued that such trades frequently satisfy both the objective and subjective tests of the economic substance doctrine. These trades significantly alter the taxpayer's economic position, and the primary motivation isn't just to gain tax benefits but to navigate a complex and fluctuating market.

Therefore, based on the principles of the economic substance doctrine, our position is that IRC Section 1091 should not be extended to digital assets. Their unique attributes and trading behaviors set them apart from traditional stock or securities trading.

### **Please describe the various types of rewards provided for mining and staking.**

Mining refers to the computational process of validating and recording transactions on a blockchain, primarily the Bitcoin Blockchain. Mining involves a network consensus mechanism commonly known as proof-of-work (PoW). While transactions await validation, they are grouped in a "mempool." Using specialized hardware, miners validate the legitimacy of the waiting transactions and engage in a computational race with other miners to find a valid solution to a complex mathematical problem. The first to find such a solution writes a new block to the blockchain with the validated transactions from the mempool in it.

Given the computationally intensive nature of this process, successful miners are compensated with newly minted digital tokens, currently 6.25 Bitcoin. On top of this, they often receive fees from the transactions they validate, which acts as an incentive to continue validating transactions and securing the network.

The financial incentive of earning newly created tokens and transaction fees, and the cost of specialized mining hardware and the electricity needed to run it, drive the decentralized network of miners to honest behavior, because dishonest behavior (blocking valid transactions or reversing or otherwise altering previously confirmed

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transactions) would require controlling all sequential blocks for an extended period of time, and outcompeting all honest participants for such a time period has a practically insurmountable cost and no direct financial benefit.

While PoW emerged as the first decentralized consensus mechanism, some wanted to remove the need for the external resources of specialized hardware with high electricity needs. An alternative validation and network consensus protocol was invented known as Proof-of-Stake (PoS).

Like with the PoW mechanism, PoS also operates as a distributed and decentralized system. In these systems, a decentralized network of participants, known as "validators," use commonly available computer hardware to validate transactions, but rather than racing against one another to find valid cryptographic solutions, the validator who creates each new block is selected "at random" by the network consensus algorithm. The rate of occurrence that a given validator will be selected to validate a block is meant to be proportional to the amount of tokens they are "staking" compared to the rest of the currently staked tokens.

When validators "stake" their tokens, they are functionally removing those tokens from being tradeable, and in some cases they become collateral to prevent malicious behavior. The staked tokens act as both a motivator and a deterrent: validators are rewarded by earning newly created tokens for honest behavior and can have their stake destroyed or "slashed" for malicious actions or errors.

Many users in the cryptocurrency community prefer the PoS approach because it does not require specialized hardware or the use of high amounts of electricity. However, others consider the PoW approach to be more trustworthy as a decentralized consensus mechanism, because of the possibility that the randomness that PoS systems use to choose validators could be gamed, which would mean that they are not as decentralized or secure against outside control as a PoW network. This is a hotly debated topic within the community and it will likely continue to be so until either a high profile PoS system is successfully attacked, or it successfully repels a meaningful attack attempt.

Stakers have options in how they wish to participate in the validation process, using the Ethereum network as an example. A staker can choose "solo staking," where they lock their ether and control both the validation process and the crypto assets. They download a validator client, a type of open-source software, and run it on a server. This solo staker is entirely in charge of their operations.

However, not everyone has the technical expertise or resources to solo stake. This is where validator providers come into play. These providers offer staking services, allowing individuals to stake their cryptocurrency without managing the technical aspects of validation. The staker's role is limited to providing the assets, while the validator provider handles the validation process.

Rewards on the Ethereum blockchain occur every 6.4 minutes when the system randomly divides all eligible validators into groups, assigning each group a block to

validate. Within these groups, one validator proposes a block, and the others attest to its validity. Validators that help the network achieve consensus by proposing and attesting to blocks receive rewards. These rewards are automatically sent to their designated withdrawal addresses.

While the Ethereum blockchain is just one PoS system, many other blockchains have followed its methods. However, it is likely that new emergent reward systems will be created and gain in popularity.

### **How should returns and rewards received for validating (mining, staking, etc) be treated for tax purposes? Why? Should different validation mechanisms be treated differently? Why?**

Regardless of the method for which rewards for validating transactions and securing a blockchain's history are generated, the taxation treatment should be the same. Drawing parallels to traditional commodities, such as gold, agriculture, or energy, this provides a perspective on how digital assets must be approached for taxation. Just as commodities are not taxed at the point of extraction but rather when sold in exchange for currency, digital assets should be treated similarly.

This approach not only ensures a consistent taxation framework but also respects the unique operational models of miners and stakers. It's worth noting that many miners and stakers convert their digital assets to fiat currencies immediately to cover their operational costs. However, a significant portion of them retain their rewards, either for future appreciation or for direct use on the blockchain network.

Immediate taxation upon receipt would be burdensome, hindering the growth and innovation of mining and staking operations within the U.S. The exodus of businesses and power users to other jurisdictions would be dramatic and very likely result in less tax revenue than if they were instead taxed when sold.

Moreover, the dynamic nature of the digital asset space means that as new consensus mechanisms and reward systems emerge, tax regulations need to be adaptable and forward-looking.

An essential aspect to highlight is the multifaceted utility of many of the tokens that can be earned through the validation process. Many digital assets serve functional purposes within their respective ecosystems. For instance, Filecoin and Arweave tokens can be used to procure decentralized cloud storage services. This dual nature, where tokens can be both an investment and a utility, further underscores the need for a nuanced taxation approach. Given the potential for tokens to be used for services, or for them to be permanently lost through simple mistakes, and the inherent volatility of the digital asset market, taxing rewards at the point of sale is a more equitable and logical approach. This ensures that individuals are taxed based on realized gains, accounting for the actual economic benefit derived from their digital assets.



## **What factors should be most important when determining when an individual is participating in mining in the trade or business of mining?**

Just as the government rightly oversees large agricultural operations without deeply scrutinizing individuals selling a few bushels of apples at the farmers' market annually, the same principle should apply to cryptocurrency mining.

The cryptocurrency mining landscape is diverse and intricate. Globally, many enthusiasts run small-scale nodes or venture into residential mining initiatives. Some innovative miners even repurpose the heat from their operations for practical applications, such as warming greenhouses or heating water in their homes.

Despite the varied scale and methodologies used, the tax implications on the tokens earned should not hinge on the size or method of mining. The most suitable occasion for taxation arises when cryptocurrency tokens are converted into traditional fiat currency.

Moreover, it's crucial to understand that many miners might not always exchange their tokens for significant fiat amounts. Instead, they might directly use their tokens to purchase goods or services. In these cases, their financial activities should conform to typical consumer transactions, akin to how sales tax is applied.

## **What factors should be most important when determining when an individual is participating in staking in the trade or business of staking?**

Drawing from the previous answer about mining, the principles stated can be directly translated to the domain of staking in the digital asset landscape.

People worldwide engage in staking, either through personal setups or by joining larger staking pools. Some participants, particularly those involved in personal staking, might use the tokens they earn for specific functions within the blockchain ecosystem, such as covering gas fees or other consumptive purposes.

Irrespective of the scale or method of staking, the tax implications on the tokens earned should not depend on the size or approach of the staking activity. The most appropriate point for taxation is when these tokens are converted into traditional fiat currency.

## **Please describe examples of the arrangements for those participating in staking pool protocols.**

Many individuals possess both the financial investment in tokens and the technological know-how to individually participate in the PoS validation process. However, many who wish to participate in these chains might not have this expertise. Consequently, pooling protocols have emerged, offering staking services that allow individuals to stake their cryptocurrency without diving deep into the technical nuances of validation. In these pools, participants, often referred to as "stakers," primarily supply the assets. Meanwhile, the validator provider oversees the entire validation process.

It's crucial to recognize that in these pooled setups, the validator provider doesn't take ownership of the staked crypto assets or the rewards destined for the withdrawal address.



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Instead, their function is more like that of an IT service provider, ensuring the smooth running of the validation procedures.

When validators positively contribute to achieving consensus by proposing and attesting to blocks, they receive rewards that are automatically sent to their specified withdrawal addresses.

**Please describe the appropriate treatment for the various types of income and rewards individuals staking for others or in a pool receive.**

Rewards derived from pooling protocols come from the collective participation in validating transactions and upholding the blockchain's security and integrity. In pooling, individual participants merge their resources to reduce technological demands and to satisfy the minimum token requirements. This group endeavor ensures that even those lacking substantial resources or technical know-how can contribute to the network and, subsequently, earn a share of the rewards proportional to their contribution.

Considering the joint objective of validating and recording transactions, rewards from pooling should be treated consistently for tax purposes, akin to rewards from solo staking or mining. The most appropriate point for taxation is when these digital assets are exchanged for fiat currency. Adopting this method guarantees a standardized taxation structure, underscoring the communal nature of pooling and its significant position within the wider blockchain community.

By zeroing in on the moment of conversion to fiat, regulatory bodies can uphold fairness and simplicity in their taxation strategy, recognizing the collaborative spirit inherent in pooling rewards and the diverse applications they may have within the blockchain domain.

**Please provide feedback on the Biden Administration's proposal to impose an excise tax on mining.**

The proposed 30 percent excise tax on Bitcoin mining would weaken the American economy, amplify global carbon emissions, and diminish America's standing as a technological leader.

The U.S. Bitcoin mining sector generates hundreds of millions of dollars in value for the American economy. Implementing a 30 percent excise tax would instantly destroy the growth of this emerging industry and very likely push it entirely out of the country. While the proposed tax seems to be rooted in environmental concerns, the real economic and environmental concern should be the offshoring of this industry from American soil.

Bitcoin mining is a highly competitive process with sometimes very tight margins. Because the rate of issuance of new tokens is designed to remain constant, but the amount of participation in the mining process keeps growing, the amount of rewards a miner earns are proportional not to their hashrate, but to their share of the overall hashrate of the global network. As such, a miner doesn't really have any control over the value of what they mine, so in order to optimize their profits all they can directly control are their costs, which break down into three segments; how much they spend on mining hardware, how much they spend on electricity, and how much they spend on IT personnel and services to keep their operations running.

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The US is already at a disadvantage in regards to mining hardware costs since most manufacturers are in China and elsewhere in the world. US wages are also higher than in most other countries, giving US miners another disadvantage. The only cost they can really work to optimize is how much they spend on electricity, which means they already have an enormous incentive to use only the most energy efficient mining hardware and tap into alternative sources of energy, such as by capturing methane from landfills or geothermal sources too difficult or expensive to connect to the electricity grid.

Should the U.S. enact this punitive tax, it would force many domestic Bitcoin mining operations to move offshore in order to stay at all competitive. Such a move would produce adverse environmental consequences, especially since many mining operations outside of the U.S. often use energy sources that produce higher carbon emissions.

If America aspires to be a global leader in environmental responsibility, pushing industries toward less environmentally friendly operations elsewhere seems counterproductive. It is also clearly counterproductive to drive away a valuable business sector that has more built-in direct incentive to use alternative energy sources than most other business sectors.

In addition to the environmental implications, there's a strategic angle to consider. The U.S. boasts a rich history of spearheading technological innovations. By introducing steep taxes on industries like Bitcoin mining, the country risks losing its competitive edge in the dynamic world of technology. Whether it concerns web3, Bitcoin mining, or any other nascent technology, it's vital for America to uphold its leadership role. Prioritizing messaging concerns over a broader strategic vision sets a troubling precedent.

This proposed tax represents more than just a policy decision; it's a reflection of the type of technological leader America aims to be. If America chooses to pull back from industries like Bitcoin mining, we risk our competitive advantage in other pivotal technological arenas in the future.

## **Nonfunctional Currency (IRC Section 988(e))**

### **Should a de minimis nonrecognition rule like the rule in IRC Section 988(e) apply to digital assets? Why?**

The principles underlying the de minimis nonrecognition rule in IRC Section 988(e) for foreign currency should also apply aptly to digital assets when used as a medium of exchange. Although many individuals are attracted to digital assets primarily as speculative investments, a growing number are using these assets, especially stablecoins, for daily transactions.

One of the advantages of using digital assets in transactions is avoiding the tedious conversions between various national currencies, particularly in international trade. The adoption of digital assets, which includes stablecoins and prominent cryptocurrencies like Bitcoin, by forward-thinking merchants is on the rise. This trend is making transaction processes more efficient, reducing barriers, and enhancing the transactional experience for all parties involved.



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Integrating the de minimis nonrecognition rule into the framework of digital assets will support fair taxation while simultaneously fostering the broader acceptance of digital assets in global commerce. Such a step would strategically recognize the transformative role digital assets play in the current financial ecosystem, advancing a more unified and nimble global trading structure.

### **What threshold is appropriate and why?**

The current exemption limit for foreign currency transactions stands at \$200. For the sake of regulatory consistency and clarity, applying a similar threshold to digital assets would be wise. However, in light of the noticeable inflationary trends and their subsequent effects on consumer prices recently, this threshold should be adjusted in accordance with inflation rates. Such an adjustment ensures that the exemption maintains its real-world value and remains relevant in the ever-changing economic context.

### **Valuation and Substantiation (IRC Section 170)**

**Digital assets do not currently qualify for the IRC Section 170(f)(11) exception for assets that have a readily available valuation on an exchange. Should the substantiation rules be modified to account for digital assets? If so, in what ways and for which types of digital assets? More specifically, would something different need to be done for those publicly traded digital assets?**

The Web3 Working Group represents the DePIN industry, which encompasses a wide variety of token types. Nevertheless, its members often express a desire to donate different digital assets for a range of philanthropic endeavors, including the direct use of these tokens by recipients. Given the decentralized and transparent nature of blockchain technology, the timestamp when a token is transferred from one owner to another is recorded on the blockchain. This time can then be matched to the value of the token on an exchange at the same time. This inherent transparency provides a solid basis for valuation.

Considering the current exclusion of digital assets from the IRC Section 170(f)(11) exception, it becomes imperative for Congress to adapt the substantiation rules to incorporate digital assets. The ability of the blockchain to provide a clear, unalterable record of transactions and valuations serves as a robust foundation for these changes.

For publicly traded digital assets, which are characterized by their liquid markets and regular price discovery, their valuation can be determined from their real-time trading price on major exchanges at the time of donation. This immediate valuation, supported by the transparent blockchain ledger, should serve as trustworthy substantiation for tax purposes.

Moreover, even before Congress makes any amendments, the IRS should take the initiative to update its guidance. Doing so would ensure that nonprofits, such as the Web3 Working Group, are on par with other charitable entities, promoting a more inclusive framework for digital asset donations.