TAX MANAGEMENT
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U.S. INCOME

Taxation of Cryptocurrency and Other Digital Assets

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Rob Massey (Principal Author) began serving clients in 2012 in the blockchain and digital asset space, founding Deloitte's practice in this area. He is the Global Tax Leader for Blockchain and Digital Assets serving companies throughout the ecosystem inclusive of investors, miners, staking providers, payment processing, wallet hosting, exchanges, banks, Web3, investment funds, DAOs, corporates engaging with digital assets, tokenization, and protocol development. Rob's blockchain expertise spans the comprehensive tax considerations of blockchain enabled transactions and the analysis of the tax impacts of tokenization and digital asset transactions across various business models and industries.

Conor O'Brien (Principal Author) is in Deloitte's Washington National Tax Office, focusing on Blockchain and Digital Assets. Conor began his tax accounting career with Deloitte Tax in 2007, and in 2018 he returned specifically to work with Rob Massey in the Blockchain and Digital Asset space. Since then, he has played an integral role in analyzing various cryptocurrency specific transactions and concepts to gain a greater understanding of their factual underpinnings. Conor has participated in structuring and launching projects for decentralized protocols, token issuers, NFT issuers, DAOs, exchanges, custodians, and staking as a service provider. Additionally, he has performed in-depth analysis of various proof of stake blockchains, as well as various DeFi platforms including decentralized exchanges and decentralized lending platforms. Conor enjoys rolling his sleeves up and experiencing the technology first-hand to develop a clear vision of how these novel tools work, and to determine how they might be viewed from an income tax perspective.

This Portfolio is the culmination of efforts by fifty tax practitioners from Deloitte Tax LLP, with expertise across all areas of taxation, and actively serving clients on the taxation of digital asset transactions. Many of the authors listed below are with the National Office of Deloitte Tax LLP which collaborates across competencies to analyze the tax treatment of the novel business models in the blockchain and digital asset ecosystem. Their full bios can be found in the Worksheets, below.

This Portfolio revises and supersedes 190 T.M., *Taxation of Cryptocurrencies*. Portfolio 190 T.M. should be discarded.

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Taxation of Cryptocurrency and Other Digital Assets

PORTFOLIO DESCRIPTION

Tax Management Portfolio, *Taxation of Cryptocurrency and Other Digital Assets*, No. 190-2nd, considers, among other things, the U.S. federal income taxation of digital assets, including cryptocurrencies. Chapters I and II introduce and discuss various types of digital assets (including various definitions) and provide an overview of the ecosystem of participants. Chapter III addresses the U.S. federal income tax guidance to date. Chapter IV discusses tax classification and accounting treatment. Chapter V considers the consequences of dealing, trading, and investing in digital assets. Chapter VI discusses issues raised by the activities and selected transactions undertaken by certain types of investment entities. Chapter VII identifies some of the novel and/or challenging tax questions raised by digital asset transactions. Chapter VIII outlines information reporting that may apply to transactions involving digital assets. Chapter IX provides an overview of select international tax considerations of digital asset transactions. Chapter X discusses select state tax matters involving digital assets. Chapter XI discusses tax considerations for individuals who invest in or use digital assets. Chapter XII covers compensation matters involving digital assets. There are also Worksheets, including a glossary of key terms and relevant diagrams explaining the blockchain and digital ecosystems.

The classification of digital assets for U.S. federal income tax purposes is the basis for much of the detailed analysis in this Portfolio. A general classification of digital assets for this purpose is merely a starting point that can be, and is, subject to exceptions. In addition, digital assets based on distributed ledger technology such as blockchain and related technologies present new and novel U.S. federal income tax issues; therefore, the views expressed by the authors are often based on interpretations that are intended to be (and, hopefully, are) neutral, as well as reasonably correct.

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In memoriam of Wendy Jackson who made valuable contributions to this publication and to Deloitte's digital asset practice for over a decade.

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DETAILED ANALYSIS

I. Introduction

The Bitcoin whitepaper was released to the public on October 31, 2008, penned by Satoshi Nakamoto, widely believed to be a pseudonym to hide the identity of the author(s). This whitepaper introduced the groundwork for a decentralized, transparent, permissionless means of recording transactions in the distributed ledger's native unit, namely the bitcoin (BTC). The following is the opening abstract from this whitepaper:

> A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. Digital signatures provide part of the solution, but the main benefits are lost if a trusted third party is still required to prevent double spending. We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. The longest chain not only serves as proof of the sequence of events witnessed, but proof that it came from the largest pool of CPU power. As long as a majority of CPU power is controlled by nodes that are not cooperating to attack the network, they'll generate the longest chain and outpace attackers. The network itself requires minimal structure. Messages are broadcast on a best effort basis, and nodes can leave and rejoin the network at will, accepting the longest proof-of-work chain as proof of what happened while they were gone.[1]

Since the inception of Bitcoin, we have witnessed a staggering increase of new decentralized protocols and associated digital assets, largely constructed using blockchain technology. These new protocols and digital assets have greatly expanded the universe of transactions in the blockchain and digital asset space. The number and types of market participants has correspondingly grown exponentially.

This Portfolio will explore the myriad tax considerations facing taxpayers that participate in transactions with digital assets. These transactions may be broadly grouped into two distinct categories. First, there are certain activities and transactions that are unique to digital assets such as mining, staking and participating in Decentralized Finance (DeFi) — an emerging financial technology built on a secure distributed ledger akin to those used by cryptocurrencies. In such cases, there are few if any tax rules that specifically address the precise type of activity. The tax professional must build a deep understanding of the underlying activity as a base for determining the appropriate tax consequences under general tax principles.

A second class of transactions involves more traditional activities, albeit with a new asset class. For example, we see investors, traders, dealers and custodians in the digital asset space. The tax rules that apply to many of these activities are fairly well-established, but the introduction of a novel asset class often leads to difficult questions regarding the application of these rules. For example, it is often necessary to determine if a digital asset may be characterized as a commodity or a security for a particular purpose, such as when applying the safe harbor for effectively connected income attributable to the activities of a trader of digital assets.

This Portfolio is organized along these lines. For circumstances where the activity is unique to digital assets, this Portfolio provides a description of the activity and generally sets forth the primary consideration for determining the appropriate tax consequences of such activity. For more traditional activities, the Portfolio briefly summarizes the relevant law and identifies the key issues that tax professionals must grapple with in applying that law. The types of transactions and activities are not always clear cut, but this general framework is often helpful when approaching activities and transactions that involve digital assets.

To facilitate the discussion in this Portfolio without becoming bogged down in the description of the technology, the Portfolio has a glossary of terms in the Worksheets below describing many of the key terms and important operations and functions of blockchain technology. The definitions and context below are considered mainstream and commonly used as per the authors of this Portfolio with an effort to be useful to the reader.

This Portfolio will sometimes use the terms "digital assets," "cryptocurrency," and "token" interchangeably to reference fungible digital assets, unless the context is relevant to a specific category of fungible digital asset. Chapter II.B., below, provides a listing of various types of common digital assets and the Portfolio will refer to the specific type of digital asset in question where the specifics impact the relevant tax considerations. Similarly, the terms "protocol," "distributed ledger" and "blockchain" may be used interchangeably in referencing a decentralized network. Further, the name of a blockchain (Bitcoin or Ethereum) will be used in reference to the network as a whole, whereas the ticker symbol (BTC or ETH) will reference the actual units of cryptocurrency.

[1] Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (Oct. 31, 2008).

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II. Overview of Digital Assets

A. Overview of Blockchains and Market Participants

The average person who is not involved in the blockchain and cryptocurrency world might ask themselves "What's the big deal?" What's the difference between using a blockchain like Bitcoin to transact as opposed to existing digital payment technologies available via traditional payment processors using traditional currencies ("fiat")? There are several differences in how public blockchains function that should be unpacked to provide more clarity as to how the underlying transactions may be conceptualized to appropriately analyze them for income tax purposes.

Parties that participate in blockchain-based systems fall into two broad, and not mutually exclusive, groups: the users and the enablers. The users are those that hold and transact with digital assets. The enablers are those that participate in the core function of the blockchain to record and verify user transactions — commonly referred to as "miners" on the Bitcoin network, and other proof-of-work blockchains or "validators" on other networks.

Any party with access to the internet can be a user of the Bitcoin blockchain. There is no registration, Know Your Customer ("KYC") or other gatekeeping mechanism to limit one's ability to access the network. One must merely control a "private key" which provides the owner with control over an associated public address derived from the private key's counterpart — the "public key."[2] (The private key and public key are analogous to an email account password and the associated email address, respectively.) The private key is necessary to send transactions from an associated public address and is used by the network to verify ownership and authenticate the transaction request. On the other hand, to receive digital assets, the sender need only know the intended recipient's public address — no action is necessary on the recipient's behalf, which in some cases results in the receipt of unsolicited, and undesired digital assets. There are multiple ways to acquire a private key — advanced users may choose to generate their own and hold[3] it in an analog fashion (on paper, or even just memorizing it), or a private key can be obtained through the purchase of a hardware wallet[4] of which there are several choices in the market that utilize varying technological features. There are also web-hosted wallets that may generate a private key and store it on the user's computer, or even on cloud servers.

Commentary: Users may choose to engage through a crypto exchange or custodian (e.g., Coinbase or Binance), which generally would entail a KYC and registration process. These parties are in custody of the private key, and consequently the associated digital assets. Custodians and exchanges will hold digital assets in varying capacities for their customers. For instance, some exchanges may utilize an omnibus address which holds all customer digital assets. Transactions occurring among customers in an omnibus account are simply recorded by the exchange internally and on other systems. If a customer wants to withdraw a given digital asset, the request is sent to the exchange through the user interface. The exchange then sends the requested assets to the designated on-chain wallet address. Alternatively, customers of custodians may have their digital assets held in a segregated-on chain address (or addresses), in which the custodian holds the private key(s). Crypto exchanges are often the starting place for new adopters of crypto technology, as they also serve as a marketplace to exchange fiat currency for crypto. Other than acquiring BTC on an exchange, a new user could only obtain BTC in its address by receiving it as payment from another party, or by earning it through participation on the network as a miner.

Enter the enablers, the parties that keep blockchains such as, Bitcoin, alive. The primary responsibility of the enablers of a blockchain is to participate in the "consensus mechanism," which is a standard set of procedural rules embedded in the underlying protocol of the blockchain. The enablers follow these procedures to validate transactions and update the blockchain with new blocks of data. Consensus mechanisms differ considerably from one blockchain to another, but they fall into two basic types: (i) proof of work (done by miners) and (ii) proof of stake (done by validators).

In blockchains using a proof of work consensus mechanism, such as Bitcoin, the miners validate purported transactions by confirming that each proposed transaction is signed by the appropriate private key; that the send address from each transaction has an adequate balance of BTC to fulfill the transaction; and transactions are ordered in the Bitcoin ledger in order in which these transactions occurred. After confirming the validity of these transactions, the miner will propose a new block containing this transaction data, as well as the hash of the previously recorded block, and a "nonce" — a random number that is included in the block data. These three components of data are then run through the blockchain encryption algorithm which results in a new block hash. This block hash must meet a difficulty threshold that the network sets after each successfully mined block of transactions, to keep the time it takes miners to record new blocks consistent (approximately 10 minutes). If the proposed block hash does not meet the difficulty threshold, it is rejected by the network, and the miner will propose the block again using a new nonce in hopes of meeting the difficulty threshold. This is where the heavy computing demands come into play for proof-of-work blockchains, effectively guessing the correct nonce to have the proposed block accepted by the blockchain.

If a block is successfully mined, the miner is entitled to compensation in the form of a "block reward," which is an amount of newly minted BTC that the successful miner is allowed to mint for itself into its specified address. This reward amount is dictated by the protocol and is reduced by 50% approximately every four years (colloquially termed "bitcoin Halving"). Current estimates are that BTC block rewards will continue to be minted until the year 2140, at which point the maximum number of BTC, approximately 21 million, will have

[2] Cryptocurrency generally uses a private/public key pair to encrypt transactions. See the "Private Key" and "Public Key" definitions in the Glossary of Terms in the Worksheets, below.

[3] See the Glossary of Terms in the Worksheets, below, for additional context on blockchain-based operating environments and user interactions.

[4] The term "wallet" is used colloquially in the crypto industry to describe the physical manner in which a party holds and interacts with their private keys in order to transact on a blockchain. There are various types of wallets that offer varying degrees of security and accessibility. See the "Cold Wallet" and "Hot Wallet" definitions in the Glossary of Terms in the Worksheets, below, for additional discussion.

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been reached and no further BTC will be created. This cap on the number of BTC, which is embedded in the protocol and cannot be changed without overwhelming consensus of the enablers, is considered to be one of the attractive aspects of the blockchain by many crypto enthusiasts.

The general concepts and structure of the Bitcoin blockchain have applied and been expanded by other blockchains. For instance, the Ethereum blockchain was (until September 2022) a proof-of-work blockchain and worked in a similar fashion to Bitcoin. However, Ethereum has brought to fruition the concept of executable code being hosted on its blockchain that allows users to create decentralized applications (dApps). This brings a whole new form of stakeholder to the system in addition to the users and enablers — those that launch, and in some instances control — decentralized applications. Further, the Ethereum blockchain also allows users to create their own tokens using different protocol standards, the ERC-20 standard being the most prevalent, so not only does the blockchain form consensus around its native cryptocurrency, ETH, but also for every ERC-20 token (or other Ethereum-based digital asset) as well. The transformation of Ethereum's consensus mechanism to a proof-of-stake network will be addressed in subsequent chapters.

Although some of the interest in blockchain technology and cryptocurrency was as a speculative investment asset, there are powerful concepts imbedded in its functionality. The technology brings many new tools to the hands of its users, in addition to complexities in the implementation. For instance, the trustless nature has enabled the development of DeFi creating accessible tools for users to participate in financial transactions with willing counterparties while at the same time posing risks to users that do not understand the complex architecture and economic designs of these systems.[5] Businesses have also been interested in utilizing the technology to create more efficient processes that involve multiple parties that may not trust each other, such as in supply chains. The development of these tools is still evolving, with an increasing number of enterprise use cases in an exploratory phase. Some of these developments will be sponsored through private (as opposed to public) blockchains.

Given the growing interest in the blockchain industry and potential use of the technology as a new digital infrastructure for hosting transactions, multiple new purpose driven blockchain projects have been launched, including new consensus mechanisms such as proof-of-stake. A proof-of-stake blockchain, such as Ethereum, Solana, Avalanche and Tezos, differs from the proof-of-work model in that one merely must prove ownership of the particular blockchain's native cryptocurrency in order to participate in network consensus and does not need to commit large amounts of energy to guess the correct nonce as described above. On one hand, this reduces energy consumption of the network and increases transaction speed. On the other hand, some argue that this consensus mechanism cannot be as decentralized as a proof-of-work system and will benefit those who acquired the blockchain's native currency early, in an unfair manner.

With the ability of individuals to create their own tokens that may represent other "real world" assets, develop intricate smart contracts to automate specific transactions, and experiment with other novel implementations of this technology, many questions arise as to the appropriate treatment of these assets and activities for U.S. federal income tax purposes.

B. Types of Digital Assets

Different types of digital assets may have different tax implications simply due to the nature and structure of the digital asset itself and how it is used. For instance, receipt of newly minted cryptocurrencies as a block reward on a decentralized blockchain may be viewed differently from the receipt of a newly minted token from a smart contract[6] controlled by a single party. Alternatively, tax accounting treatment for transactions in a stablecoin — property intended to maintain a peg to a fiat currency — will differ from that of a Central Bank Digital Currency, which may be treated as money. A recurring theme throughout this portfolio, which should remain top of mind when analyzing tax consequences of digital assets, is the need for clearly understanding and defining the rights associated with any digital asset along with its surrounding ecosystem. In other words, when analyzing digital assets, the first question should always be "What's the thing?"

The following is a nonexhaustive list of different types of digital assets that may be encountered in providing tax analysis in the blockchain and digital asset industry. The distinctions between the types are not always sharp, and the use of these labels by the digital industry, legislators, government agencies and courts is not always perfectly consistent. Definitions of the following digital assets are provided in the Glossary of Terms in the Worksheets, below.

1. Cryptocurrency

A cryptocurrency is a digitally derived unit that serves as the native unit of a decentralized, cryptographically secured network, or blockchain. Cryptocurrencies serve as the underlying incentive mechanism for participants to provide infrastructure support, such as miners on a proof-of-work blockchain or validators in a proof-of-stake blockchain.[7] Given the recent widespread popularity of decentralized networks and the plethora of tokens in circulation, one should note that not all digital assets are cryptocurrencies. Tokens that can be minted on smart contract enabled networks, such as ERC-20 or ERC-721 tokens on Ethereum or SPL tokens on Solana, would generally be considered a token, not a cryptocurrency because they are not the native unit of a blockchain. Some may argue that BTC should be considered in a class of its own apart from other cryptocurrencies due to the blockchain's broad infrastructure base, expanding decentralization, and unique origin.

[5] Francesca Carapella, Edward Dumas, Jacob Gerszten, Nathan Swem & Larry Wall, *Decentralized Finance (DeFi): Transformative Potential & Associated Risks*, Finance and Economics Discussion Series 2022-057, Washington: Board of Governors of the Federal Reserve System (June 16, 2022).

[6] See the "smart contract" definition in the Glossary of Terms in the Worksheets, below, for further discussion.

[7] See the "cryptocurrency" definition under the National Institute of Standards and Technology (NIST) glossary on the U.S. Department of Commerce website.

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2. Stablecoins

Stablecoins are fungible tokens issued on a smart contract enabled blockchain that are intended to maintain a value pegged to a specified unit of fiat money.[8] There are many different stablecoins hosted on various blockchains, all with slight variations of how they function. The largest definable groups of stablecoins fall into the following two categories: those that are backed by an issuer's reserves (such as fiat or debt instruments) and those that are backed by other cryptocurrencies. Issuer-backed stablecoins effectively serve as IOUs for the underlying fiat currency or commodity in the case of commodity-backed stablecoins, which may be redeemed from the issuer by returning the stablecoin.

As a result of their centralized nature, fiat-backed stablecoins differ from those that are hosted in a more decentralized manner, such as Maker DAI. DAI is a stablecoin issued by a decentralized autonomous organization (DAO) called MakerDAO. Users can deposit certain Ethereum-based tokens on the Maker protocol as collateral to mint DAI, a stablecoin pegged to the U.S. dollar. In some sense, this platform is like an overcollateralized DeFi Lending platform. When the user wants to redeem the collateralized assets, it must simply repay the DAI along with any associated fees.

Stablecoins provide many functions — they can serve as a means of paying for goods or services using blockchain-based payment systems, in which users may not want economic exposure to cryptocurrency. Further, they serve as an integral component of DeFi systems, enabling users to enter and exit economic positions in cryptocurrencies without the need of a centralized exchange.

3. Governance Tokens

Governance tokens allow the owner to participate in onchain votes for their associated network, typically a decentralized application or decentralized autonomous organization.[9] The rights associated with a specific governance token can vary widely — some may provide the holder with a nonbinding advisory vote on the operations of an application, whereas others may provide votes that can directly influence the transfer of funds housed in a community treasury. As such, it is important to understand explicitly what rights are associated with any governance token. Characteristics of certain governance tokens may closely resemble the characteristics of equity — such as a right to vote, and in some cases the potential for an economic return to token holders.

4. Utility Tokens

Utility tokens are fungible tokens used to perform specific functions within a given decentralized application or ecosystem.[10] Utility tokens may simply provide the holder access to a specific application, by requiring that a fee be paid with the specified token. Alternatively, they may be used to effectively run an entire ecosystem, such as with the Basic Attention Token (BAT) within the Brave browser. BAT is used to reward users of the browser for viewing advertisements. Users can in turn "tip" content creators and websites with BAT. Although some parties may hold BAT as an investment, its primary intent and use case is to provide functionality to the Brave browser. Utility tokens are often minted by the party or community involved in development and deployment of the surrounding ecosystem. These tokens would typically be an ERC-20 token on Ethereum, SPL token on Solana, or any fungible token minted on other smart contract enabled blockchains.

5. Nonfungible Tokens (NFTs)

A nonfungible token, or NFT, is a unique, indivisible token minted that has special characteristics compared to its fungible counterparts in that they are uniquely identified and indivisible. In some instances, NFTs may serve as a representation of another asset.[11] Simply said, an NFT is a digital certificate in the form of a token that is stored on a blockchain. It may be associated with a piece of music or a photograph. It is nonfungible because the metadata associated with it cannot be replicated. NFTs were initially created on the Ethereum blockchain as independent art and game projects. This has evolved to a formal token standard, the ERC-721 standard, that is now regularly used to mint NFTs on Ethereum. Although a group of NFTs may have the same smart contract mint address, each of these tokens can contain unique data, such as a unique identifying number or assigned naming convention, or a linked association to a digital file (such as a jpeg) hosted on a cloud or decentralized storage platform. The NFT format is the underlying technology of recently popular profile picture (PFP) projects such as the Bored Ape Yacht Club. Because these groups of NFTs have the same mint address, owners can form private groups using tools that integrate with communication platforms, such as Discord, that verify a user's ownership of a specified NFT. These private groups often develop internal governance structures and may partake in development of new blockchain-based projects and tools — in some cases even launching a fungible token to serve as either a utility or governance token.

NFT ownership can represent more than just a digital image of an ape. It is important to understand the specific rights that are attributable to a particular NFT to determine how transactions associated with the NFT might be treated for U.S. federal income tax purposes. For instance, an NFT may have rights akin to a governance token (see II.B.3., above), or in some cases may provide the holder access to online services, in which case initial acquisition may be viewed as a prepayment for future services. Although it is relatively common for NFTs to have unique images associated with each token, this is not always the case. One might question in these situations, whether the owner of the NFT ought to also be viewed as the owner of the associated image file (which is contemplated in Notice 2023-27 and discussed further in III.E., below). Put in perspective, an NFT holder generally would not have access or control over the cloud storage that hosts the associated image. Further, the NFT holder's rights associated with the underlying image file (commercial exploitation rights, etc.) may be contractually

[8] See the "stablecoin" definition under the NIST glossary on the U.S. Department of Commerce website.

[9] *See* Marcel Deer, *What are governance tokens, and how do they work?*, Cointelegraph (Oct. 24, 2022).

[10] See the definition of "utility token" in the Glossary on the CoinMarketCap website.

[11] Notice 2023-27.

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limited by the issuer. In a certain light, NFTs purely associated with a specified image may not represent ownership of that image, but merely provide the owner bragging rights.

With the wide variety of NFTs, equally varied are their uses by individuals, funds, and enterprises. It is important to analyze the specific technological characteristics of each NFT, its rights and obligations, and how it is used by the taxpayer to make appropriate tax determinations (e.g., character) that may be applicable to a creator, investor, trader or dealer. These examples will be further referenced throughout this portfolio.

6. Wrapped Tokens

Wrapped tokens represent ownership of another digital asset locked in a smart contract or held in a custodial capacity by a centralized party.[12] There have been a number of examples of wrapped tokens. An early example of wrapping is Wrapped BTC (wBTC), an ERC-20 token representing ownership of BTC held with a third-party custodian. Owners of BTC can contract with certain cryptocurrency custodians supporting the network to custody their BTC, and in return mint the associated amount of wBTC and send it to the customer's Ethereum address. This allows the holder of the wBTC to deploy this value on Ethereum-based DeFi platforms, earning various types of returns that were inaccessible on the Bitcoin blockchain. The wBTC can be redeemed for the associated BTC held in custody at any time. In a similar construct, but managed by smart contracts instead of a custodian, ETH itself can be wrapped to receive an ERC-20 compliant version in order to deploy the associated value on DeFi applications. A third application of wrapped tokens is for cross-chain bridges such as Wormhole, which custodies tokens on a native chain and mints a wrapped version on the target chain through an additional consensus layer.

As with all other types of tokens, it is important to understand how any purported wrapped token system works to understand whether the token that is wrapped is locked in custody, or may instead be rehypothecated, lent, disposed of, or used in any other transaction. Further, the ability of the holder of the wrapped asset to redeem the underlying asset held in custody is a key component in determining the appropriate tax characterization of a wrapped token.

7. Security Tokens, Tokenized Securities, Derivatives

Security Tokens are tokens issued in place of a traditional security, such as shares of stock in a corporation.[13] In the case of equity Security Tokens, the token may serve as a digital representation of the equity itself (i.e., tokenized equity), or may serve as a proxy for underlying shares of stock to facilitate more efficient transactions of the shares. The latter, while not currently applicable to U.S. crypto exchanges, has become a popular feature of many non-U.S. crypto exchanges. Tokens can represent other securities aside from equity, such as debt or various types of derivatives. In fact, tokens associated with transaction flows in certain dApps, such as LP tokens in a DEX, may have many attributes akin to a derivative. As always, to appropriately analyze and characterize any tokens, including security tokens, one must adequately understand what the property is, and the rights associated with said property.

8. Central Bank Digital Currencies

Central Bank Digital Currencies (CBDCs), are digital currency units authorized and issued by a country's central banking system. CBDCs can be broken into two general categories — wholesale and retail. Wholesale CBDCs are envisioned as being utilized in the banking systems to manage intrabank transfers and other pertinent transactions.[14] Retail CBDCs are utilized in direct consumer transactions, such as buying goods from a retailer, or paying back a friend for dinner. CBDCs are currently being researched and even implemented by various governments. It is unclear as to whether these CBDCs will utilize public blockchains such as Ethereum to host transactions or if their transactions will be hosted and managed by a closed government-run system. Although stablecoins serve a similar purpose to CBDCs, tax treatment of the two may differ drastically as the former is property intended to maintain a pegged value to a specific unit of fiat currency, whereas the latter may be treated as a currency.

[12] *See* Robert Stevens, *What Are Wrapped Tokens?*, Coindesk (May 11, 2023).

[13] *See* Christina Majaski, *Cryptocurrency Security Token: Definition, Forms, and Investment*, Investopedia (Dec. 24, 2023).

[14] On July 20, 2023, the Federal Reserve announced the live launch of FedNow, a payment service made available for banks and credit unions to transfer customer funds. The Federal Reserve does not consider the FedNow payment service to be a central bank digital currency. *See Is the FedNow Service replacing cash? Is it a central bank digital currency?*, Currency and Coin FAQs, Federal Reserve System (July 12, 2023).

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III. Guidance to Date

A. Overview

As discussed below, official IRS guidance was first provided in Notice 2014-21, which described the application of certain federal income tax principles to transactions in convertible virtual currencies. Notice 2014-21 concludes that convertible virtual currency is treated as property for federal income tax purposes.[15] The IRS subsequently issued Rev. Rul. 2019-24, which considered certain cryptocurrency events. At that time, the IRS also posted on its website answers to frequently asked questions ("IRS FAQs"), which have been further updated over time.[16] The IRS FAQs expand upon 16 examples provided in Notice 2014-21 and apply the same tax principles set forth in the notice to additional situations. Later IRS releases have focused on discrete issues as discussed below.[17] Finally, recently enacted legislation is discussed in this section followed by a brief exploration of select legislative proposals in anticipation of future legislative developments.

B. Notice 2014-21

To describe the application of general tax principles to transactions involving virtual currencies, the IRS issued Notice 2014-21 on March 25, 2014. Section 4 of the notice — answers to frequently asked questions (FAQs) — was limited to convertible virtual currency which the IRS defines as: "[v]irtual currency that has an equivalent value in real currency, or that acts as a substitute for real currency." The term "virtual currency" was supplemented by IRS FAQs, Q1, to include a digital currency, cryptocurrency, or any other asset having the characteristics of a virtual currency.[18]

The notice answered the most fundamental question for federal income tax purposes — that is, convertible virtual currency is treated as property, but it "is not treated as currency that could generate foreign currency gain or loss."[19] This general classification — all convertible virtual currencies are property — does not address whether a particular convertible virtual currency could be, for example, a commodity, security, financial contract, or something else. However, as discussed in III.C., below, Notice 2014-21 indicates that specific attributes of a particular virtual currency could potentially result in its classification as "real" currency.

The notice describes "virtual currency" as "a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value."[20] The notice narrows its focus to virtual currencies that are convertible into "an equivalent value in real currency, or that act[s] as a substitute for real currency." The IRS, consistent with Financial Crimes Enforcement Network (FinCEN) guidance,[21] refers to currencies having these attributes as convertible virtual currencies.[22] Bitcoin is the apparent subject matter of Notice 2014-21,[23] which is reasonable given Bitcoin's relative market dominance at the time the notice was issued. Nevertheless, the notice's purpose is to describe how existing general tax principles apply to transactions using virtual currency generally.[24]

In the background section of the Notice, the IRS provided that:

> In some environments, [cryptocurrency] operates like "real" currency — i.e., the coin and paper money of the United States or of any other country that is designated as legal tender, circulates, and is customarily used and accepted as a medium of exchange in the country of issuance — but it does not have legal tender status in any jurisdiction.

Some may read this language to suggest that obtaining "legal tender" status in a jurisdiction where a cryptocurrency is used and accepted as a medium of exchange may make such cryptocurrency a "foreign currency" for federal income tax purposes. Since the publication of Notice 2014-21,[25] certain countries have provided "legal tender" status to specific cryptocurrencies, which give rise to uncertainty in the market.

In response to this uncertainty, the IRS issued Notice 2023-34, which modifies the language in the Background section of Notice 2014-21. Specifically, the IRS stated that "the Background section of Notice 2014-21 may be misinterpreted as overstating the similarity between convertible virtual currency and 'real' currency because the use of convertible virtual currency, including Bitcoin, to perform 'real' currency functions is limited." The IRS modified the first paragraph of the Background section to read as follows:

> In certain contexts, virtual currency may serve one or more of the functions of "real" currency — i.e.,

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[15] Notice 2014-21, §4, Q1; IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions.*

[16] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions.* The original version of the IRS FAQs were posted concurrent with the release of Rev. Rul. 2019-24 on October 9, 2019.

[17] The Treasury Department has not issued any regulations addressing cryptocurrency.

[18] Unless specified, this Portfolio generally considers virtual currencies that are convertible as described in Notice 2014-21 or IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions.* An example of nonconvertible virtual currency is virtual currency earned as part of a game that does not leave the game environment, and thus, need not be indicated on a taxpayer's tax return. *IRS Statement on Changes to Virtual Currency Webpage.*

[19] Notice 2014-21, §4, Q1, Q22. IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions* (excluding a representation of a foreign currency from the definition of virtual currency likely means it is subject to the special rules that apply to foreign currency transactions under §985–§989). See IV.A.3.c., below, for a discussion on foreign currency that includes CBDCs.

[20] Notice 2014-21, §2.

[21] Notice 2014-21, §2; *Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, FIN-2013-G001, Financial Crimes Enforcement Network (FinCEN) (March 18, 2013). FinCEN exercises regulatory functions primarily under the Currency and Financial Transactions Reporting Act of 1970, as amended by the USA PATRIOT Act and other legislation. This framework is commonly referred to as the "Bank Secrecy Act" ("BSA"). The Secretary of the Treasury has delegated to the director of FinCEN the authority to implement, administer, and enforce compliance with the BSA and associated regulations. Pursuant to this authority, FinCEN may issue regulations requiring financial institutions to keep records and file reports that "have a high degree of usefulness in criminal, tax, or regulatory investigations or proceedings, or in the conduct of intelligence or counterintelligence activities, including analysis, to protect against international terrorism." Additionally, FinCEN is authorized to impose anti-money laundering program and suspicious activity reporting requirements for financial institutions.

[22] Notice 2014-21, §2.

[23] Notice 2014-21, §2 ("Bitcoin is one example of a convertible virtual currency.").

[24] Notice 2014-21, §1.

[25] Notice 2014-21, §1.

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> the coin and paper money of the United States or of any other country that is designated as legal tender, circulates, and is customarily used and accepted as a medium of exchange in the country of issuance — but the use of virtual currency to perform "real" currency functions is limited.[26]

Notice 2014-21 provides answers to 16 FAQs regarding convertible virtual currencies. The FAQs provide basic information on the federal tax implications of transactions in, or transactions that use, convertible virtual currencies. The same general tax principles that apply to property transactions apply to transactions using convertible virtual currencies. Among other considerations, this means that:

> 1. The fair market value of convertible virtual currency paid to employees as wages is subject to federal income tax withholding, Federal Insurance Contributions Act tax, and Federal Unemployment Tax Act tax and must be reported on Form W-2, *Wage and Tax Statement*.[27]
>
> 2. Payments using a convertible virtual currency made to independent contractors are taxable, and self-employment tax rules apply. Generally, payers must issue a Form 1099-MISC, *Miscellaneous Income*, to the IRS and to the payee.[28]
>
> 3. The character of gain or loss from the sale or exchange of a convertible virtual currency depends on whether the virtual currency is a capital asset in the hands of the taxpayer.[29]
>
> 4. A payment made using a convertible virtual currency is subject to information reporting to the same extent as any other payment made in property.[30]
>
> 5. Taxpayers are required to determine the fair market value of virtual currency in U.S. dollars as of the date of payment or receipt.[31] The notice provides that a virtual currency listed on certain exchanges may be value based on U.S. dollars in a "reasonable manner that is consistently applied"; however, further guidance would be helpful.[32]

C. Rev. Rul. 2019-24

Rev. Rul. 2019-24 considered the tax treatment of "hard forks" and "airdrops" without regard to a specific virtual currency. Note, the facts of Rev. Rul. 2019-24 do not describe a chain split.[33]

Situation 1 describes a hard fork which does not result in an airdrop, and the IRS ruled that the taxpayer did not have gross income as a result of the hard fork. Situation 2 describes an "airdrop" of cryptocurrency following a hard fork. The combination of events in Situation 2 is rare and unusual. Indeed, experts describe hard forks and airdrops as being distinct and unrelated rather than sequentially related events.[34]

The IRS ruled in Situation 2 that the taxpayer had gross income as a result of the airdrop following a hard fork. The ruling describes an "airdrop" as, "a means of distributing units of a cryptocurrency to the distributed ledger addresses of multiple taxpayers." In addition, the ruling states that a hard fork followed by an airdrop "results in the distribution of units of the new cryptocurrency to addresses containing the legacy cryptocurrency." The taxpayer in Situation 2 was airdropped one unit of a new cryptocurrency for every two units he owned at the time of the hard fork.

Neither Situation 1 nor 2 describes any of the major chain splits, such as Bitcoin Cash, Bitcoin Gold, or Ethereum. For example, as discussed in VII.A., below, taxpayers holding pre-split BTC would have had an equal number of spendable bitcoin cash (BCH); however, BCH tokens were never airdropped (based on the definition in the ruling or as that term is colloquially or otherwise understood), nor was there a transfer or distribution of BCH to addresses on the Bitcoin "distributed ledger." Bitcoin Cash only references the pre-split transaction history of Bitcoin. A taxpayer understanding these major chains splits could reasonably conclude that neither Situation 1 nor Situation 2 describe any of the Bitcoin chain splits or the Ethereum chain split.

D. IRS FAQs

In 2019, the IRS website first published answers to 46 frequently asked questions (IRS FAQs) addressing virtual currency transactions.[35] The IRS FAQs are occasionally updated so practitioners should take care to refer to the website directly when using them as a reference. The IRS press release announcing the guidance — consisting of the IRS FAQs and Rev. Rul. 2019-24 — stated that it supplemented Notice 2014-21.[36]

The IRS FAQs expand upon the limited examples provided in Notice 2014-21, apply federal income tax principles to additional situations, and, unless noted, are to apply only to taxpayers who hold virtual currency as a capital asset. The IRS FAQs define virtual currency in a similar manner as Notice 2014-21: "a digital representation of value [] that functions as a unit of account, a store of value, and a medium of exchange;" however, the IRS FAQs specifically exclude "a digital representation of the U.S. dollar or a foreign currency." In addition, the term "virtual currency" is further defined to include the "various types of convertible virtual currency that are used as a medium of exchange, such as digital currency and cryptocurrency," and any asset having the characteristics of virtual currency.[37]

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[26] Notice 2023-34, §3.

[27] Notice 2014-21, §4, Q11.

[28] Notice 2014-21, §4, Q10.

[29] Notice 2014-21, §4, Q7.

[30] Notice 2014-21, §4, Q12.

[31] Notice 2014-21, §4, Q5.

[32] *See AICPA Recommends FAQs to Supplement IRS Guidance on Taxation of Virtual Currency*, AICPA & CIMA (May 30, 2018).

[33] See VII.A., below, for further explanation of these concepts.

[34] *See* Peter Van Valkenburgh, *Hard Fork*, Coin Center (Oct. 9, 2019) (providing thorough and excellent discussion of cryptocurrency events).

[35] IRS FAQs may not constitute authority for purposes of Reg. §1.6662-4(d)(3).

[36] *See* IR-2019-167 (Oct. 9, 2019).

[37] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-1. *Note:* The IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions* (and subsequent updates) were not published in the IRB and thus are not binding on the IRS, are subject to chance, and cannot be relied on by taxpayers as authoritative or as precedent for their individual facts and circumstances. *See* GAO-20-188, VIRTUAL CURRENCIES — Additional In-

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The IRS FAQs also define "cryptocurrency" as "a type of virtual currency that uses cryptography to secure transactions that are digitally recorded on a distributed ledger, such as a blockchain." This broad, and imprecise definition includes any distributed ledger that uses cryptographic credentials to spend virtual currency regardless of whether the distributed ledger implements incentives and methods to prevent double-spend attacks (e.g., proof-of-work, and emergent consensus in the case of Bitcoin).

The IRS FAQs are intended to address virtual currency transactions for those taxpayers holding virtual currency as a capital asset. Generally, the IRS FAQs address:

- Fundamental capital gain and loss questions,[38] cost basis of tax lots,[39] and valuation;[40]
- Property exchanges involving virtual currency;[41]
- Consequences of cryptocurrency events such as hard forks, airdrops, and soft forks;[42]
- Compensation- and services-related issues;[43]
- Gifts and charitable donations of virtual currency;[44]
- Reporting and recordkeeping.[45]

Still, the IRS FAQs left many questions unanswered. For example, the guidance did not clarify foreign asset reporting requirements for virtual currency under FACTA or address virtual currency transactions in the context of like-kind exchanges or retirement accounts.[46]

E. Notice 2023-27

Notice 2023-27 addresses the IRS's intent to issue guidance related to the treatment of certain NFTs as collectibles under §408(m). Notably, this notice opened a comment period for input addressing aspects of various NFTs that determine whether a given NFT ought to be treated as a collectible under §408(m). Importantly, the notice places emphasis on the rights associated with a digital asset, or an asset associated with an NFT via a "look-through analysis" to determine the appropriate treatment of the NFT for U.S. federal income tax purposes. As discussed in an example in the Notice, an NFT representing a virtual "plot of land" in a virtual environment may not be treated as a §408(m) collectible, since the virtual "plot of land" is not a collectible.[47] The commentary in this notice is helpful insofar as it confirms the view that digital assets can and should be analyzed in light of an underlying asset with which a given digital asset may be associated.

F. CCA 202302011

CCA 202302011 addresses the applicability of §165 as it relates to cryptocurrency that has significantly declined in value. This CCA confirms that the mere decline in value of an asset held does not result in a recognition event for the taxpayer holding the depreciated asset.[48] In particular, CCA 202302011 addresses the applicability and implications of worthlessness deductions and abandonment as it relates to cryptocurrency held by individuals. Further discussion on implications of these §165 losses is discussed in X.E., below.

G. Infrastructure Investment and Jobs Act

Congress included certain provisions related to virtual currencies in the Infrastructure Investment and Jobs Act ("Infrastructure Act").[49] The legislation amended §6045, §6045A, and §6050I to explicitly include digital assets for Form 1099 reporting and transfer statement purposes and to include digital assets in the definition of "cash" for transaction reporting purposes. Specific updates include the following:

- For reporting purposes, a tax definition of "digital assets" for reporting purposes, defined as "any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology as specified by the Secretary."
- An expanded definition of "broker" to include "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person."
- Inclusion of digital assets as specified securities and covered securities, thereby requiring cost basis tracking and reporting where the digital asset was acquired in an account on or after the specified date — January 1, 2023, under the statute — or reflected as covered on a transfer statement.
- A requirement for transfer statements to be furnished between brokers when digital assets qualifying as covered securities are transferred from one broker to another on behalf of another person.
- A new form of reporting when digital assets qualifying as covered securities are transferred by a broker to a nonbroker on behalf of another person.
- Reporting obligations for businesses accepting more than $10,000 in digital assets as payment.

Under the statute, the rule changes apply to returns required to be filed and statements required to be furnished after December 31, 2023. Guidance is expected imminently in the form of IRS Regulations clarifying the rules, scope, and appli-

formation Reporting and Clarified Guidance Could Improve Tax Compliance (Feb. 2020).

[38] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-4, 5, 6, 7, 28, 35.

[39] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-36, 37, 38.

[40] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-25, 26, 27.

[41] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-15, 16, 17, 18, 19, 20.

[42] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-21, 22, 23, 24, 29.

[43] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-8, 9, 10, 11, 12, 13, 14.

[44] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-30, 31, 32, 33, 34.

[45] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-39, 40, 41, 43, 44, 46.

[46] *See* GAO-20-188, VIRTUAL CURRENCIES — Additional Information Reporting and Clarified Guidance Could Improve Tax Compliance (Feb. 2020).

[47] Notice 2023-27.

[48] CCA 202302011.

[49] Pub. L. No. 117-58.

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cation. Unless there is a regulatory extension of the effective date, persons qualifying as brokers under the new rules will be required to track the cost basis of any acquisitions and report sales or other dispositions of digital assets for transactions occurring on or after January 1, 2023. Announcement 2023-2 and Announcement 2024-4 extend the effective date of the reporting requirements implemented by the Infrastructure Act until final regulations are released.

The statute included a rule of construction clarifying that the amendments are not intended to create any inference regarding the scope of §6045 prior to amendment, including whether any person qualifies as a broker or whether a digital asset is property meeting the definition of specified security. As discussed further in VIII., below, there are differing perspectives regarding whether the §6045 rules prior to the Infrastructure Act enactment could be interpreted to require reporting of digital asset sales and transfers for tax years prior to 2023.

H. CCA 202316008

CCA 202316008 addresses tax implications related to holders of digital assets on a blockchain that upgrades its consensus mechanism. Although not explicitly stated in the memorandum, it is assumed this general guidance was issued to address U.S. taxpayers concerns surrounding Ethereum upgrading its consensus mechanism. Additional discussion of this memorandum and the Ethereum upgrade can be found in VII.D., below.

I. Notice 2023-34

Notice 2023-34 modifies the Background section in Notice 2014-21 by removing the statement that virtual currency does not have legal tender status in any jurisdiction. This notice was likely issued as a result of El Salvador's actions in May 2021 (among other countries at subsequent dates) granting BTC legal tender status within the country. This update to the background section does not alter U.S. federal income tax implications of transacting in BTC.

J. Rev. Rul. 2023-14

Rev. Rul. 2023-14 addresses federal income tax implications to cash basis taxpayers receiving native staking rewards on Proof of Stake (PoS) blockchains.[50] In this ruling, the IRS provides that staking or validation rewards should be included in gross income for the fair market value at the time the taxpayer gains dominion and control over the rewards. For further discussion on staking and Rev. Rul. 2023-14, see VII.C., below.

K. Regulations Under §6045, §1001, and §1012

The IRS released regulations related to amendments made to §6045 by the Infrastructure Act.[51] The scope of these regulations defines what activities may give rise to the classification of a "Digital Asset Broker" and consequently, identifies parties with an obligation to report on sales and dispositions of digital assets for which said broker knows, or is in a position to know the proceeds of these transactions. In addition, the regulation package includes new regulations under §1001 and §1012, addressing how digital asset transactions are to be valued, and how basis in digital asset sale transactions is to be recovered by taxpayers, respectively. Further discussion on these regulations as a whole is addressed in V. and VIII., below.

L. Other IRS Releases

The IRS has also issued several advice memoranda relating to certain discrete issues with respect to virtual currencies. In CCA 202035011, the IRS concluded that virtual currency received in exchange for the performance of services is includable in gross income on receipt. In CCA 202114020, the IRS ruled that the receipt of virtual currency in a hard fork is includable in gross income when the recipient has dominion and control over the new asset. The IRS ruled in CCA 202124008 that exchanges of different kinds of virtual currency are not like-kind exchanges under §1031 for exchanges prior to the Tax Cuts and Jobs Act (TCJA).[52] Furthermore, in CCA 202444009 the Chief Counsel's Office concluded that staking rewards which were received and available for transfer, sale or exchange were income to the taxpayer despite their account being frozen in bankruptcy.

Additionally, the IRS's proposed regulations under §6011 to include digital assets, as well as other actively traded personal property as defined by the §1092 regulations, as the types of assets that may be part of a so-called "basket contract" transaction subject to disclosure as a listed transaction and potential penalties for material advisers and participants.[53]

Commentary: The IRS issued a reminder that taxpayers must accurately report digital asset transactions. Specifically, the notice draws attention to the "digital asset question" previously included on Forms 1040, 1040-SR and 1040-NR, and expanded to Forms 1041, 1065, 1120, and 1120-S for the 2023 federal income tax return filings.[54] Taxpayers should consider whether their digital asset activities, including exposure through exchange traded products or partnership interests would require responding affirmatively to this question.

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[50] See the Worksheets, below, for the Glossary of Terms.

[51] As discussed in VIII., below, the proposed §6045 regulations included non-custodial brokers in the definition of digital asset brokers. The final regulations under §6045 released in June 2024 only address custodial brokers, and further guidance is expected. One notable change in the final regulations is the removal of the proposed treatment to bifurcate transaction fees between acquisition and distribution cost in a digital asset for digital asset transactions, instead treating the totality of such transaction fees as disposition costs.

[52] TCJA, Pub. L. No. 115-97, amended §1031 to provide that §1031 treatment is restricted to exchange of real property. Thus, CCA 202124008 concerns only the applicability of §1031 to exchanges of virtual currencies completed prior to January 1, 2018.

[53] See Prop. Reg. §1.6011-16, added by REG-102161-23, 89 Fed. Reg. 57,111 (July 12, 2024), effective on the date final rules are published in the Federal Register. For further discussion of the basket contract listed transaction under the proposed rules, see 648 T.M., *Reportable Transactions.*

[54] IRS Fact Sheet FS-2024-12 (Apr. 2024).

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IV. Tax Classification and Accounting Treatment

A. Money, Currency, Security or Commodity

1. Introduction

The Code does not provide *general* definitions for the terms "money," "currency," "security," or "commodity."[55] Many provisions of the Code provide a precise definition of the relevant term — particularly the term "security" — but in other areas, there is no precise definition, and the taxpayer is left to apply a more general principle to make the determination. A general construction of each term is considered below to assist characterization of digital assets into these buckets. Characterization is often a necessary first step to determine whether a particular Code provision applies to taxpayers transacting in a particular digital asset.

Thus, when determining the characterization of digital assets for U.S. federal income tax purposes, it is important to identify both the U.S. federal income tax context(s) where the characterization matters and the specific digital asset is at issue.

2. Money

It seems well settled that the term "money" for federal income tax purposes means the coin and paper money of the United States that Congress has declared legal tender, and which circulates and is customarily used and accepted as a medium of exchange.[56] As discussed below, measurement of amounts realized on sales or dispositions of digital assets must be measured in money regardless of whether the digital assets serve as a medium of exchange in certain environments.

a. Money — The Measure of Value for Federal Income Tax Purposes

For taxpayers with the U.S. dollar as its functional currency within the meaning of §985(b), the U.S. dollar is the measure of value by which gain, loss, income, and deduction is determined for federal income tax purposes.[57] The U.S. dollar is also the currency used to pay internal revenue taxes.[58] Property, including virtual currency denominated in U.S. dollars, is not "money" for these purposes.

In *Frederick Vietor & Achelis v. Salt's Textile Manufacturing Co.*, the court stated that:

> [F]or purposes of American taxation the standard to be applied is the dollar… Our own income tax law … speaks of incomes, assets, and liabilities in terms of dollars. It measures gain and loss in terms of dollars.
>
> Our tax law does not measure assets in terms of marks, francs, or kronen, any more than in terms of wheat or pig iron. Nor can it be of any relevancy or importance to us, whether or not in terms of francs or marks, there has or has not been an addition to the capital, whether the capital is located in Chicago or in Paris. Regardless of the situs of its capital, it is the income of an American corporation which is the subject of measurement, and income accrues to it only in terms of dollars.

As discussed in III.B., above, digital assets such as convertible virtual currencies may have a value expressible in real currency, which may be U.S. dollars. Nevertheless, they are not real currency denominated in U.S. dollars and, therefore, they are not "money." Note, however, convertible virtual currencies or CVCs can be treated as money, cash, or as a cash equivalent for specific provisions of the Code or select purposes.[59]

b. Money Is a Medium of Exchange — Money Does Not Include Property

In *Wisconsin Central v. United States*,[60] the Supreme Court defined the term "money" in order to decide whether stock options were subject to tax as "compensation" for purposes of the Railroad Retirement Tax Act provisions of the Code.[61] Section 3231(e)(1) defines the term "compensation" to mean "any form of money remuneration paid to an individual for services rendered as an employee to one or more employers." The majority surveyed common dictionary definitions of "money" contemporary with the statute in order to ascertain what money was "ordinarily understood" to mean at the time of enactment and held that the term "money," as used in §3231(e)(1), must always mean a "medium of exchange."[62]

The decision in *Wisconsin Central v. United States* is of particular note to this Portfolio's discussion of digital assets. In his dissenting opinion, Justice Stephen Breyer argued that a more expansive definition of the term "money" was appropriate explaining that "what we view as money has changed over time… [P]erhaps one day employees will be paid in Bitcoin or

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[55] §7701.

[56] Notice 2014-21; *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2074–75 (2018); Rev. Rul. 76-249 (U.S. silver coins having a value in excess of face value were not money). *See also Cal. Fed. Life Ins. Co. v. Commissioner*, 76 T.C. 107, 111–12 (1981), aff'd, 680 F.2d 85 (9th Cir. 1982) ("[While technically the U.S. Double Eagle] gold coins might be legal tender, they are not circulating legal tender, or 'money,' within the meaning of section 1001(b)."); *Cordner v. United States*, 671 F.2d 367, 368 (9th Cir. 1982) (for purposes of section 301(b)(1), "gold coins [are] 'property' to be taxed at fair market value because they have been withdrawn from circulation and have numismatic worth"); *Lary v. Commissioner*, 842 F.2d 296, 299 (11th Cir. 1988).

[57] *Frederick Vietor & Achelis v. Salt's Textile Mfg. Co.*, 26 F.2d 249, 255 (D. Conn. 1928); *Bates v. United States*, 108 F.2d 407, 408 (7th Cir. 1939), cert. denied, 309 U.S. 666 (1940) ("The standard unit of computation is the money dollar"); *Wheatley v. Commissioner*, 8 B.T.A. 1246, 1249 (1927) ("[the] standard for measuring the amount of [ ] annual income was the American dollar. Paper pesos were nothing more than a commodity"). *See also* Staff of the Joint Comm. on Taxation, 97th Cong., 1st Sess., General Explanation of the Economic Recovery Tax Act of 1981, at 289 (Joint Comm. Print 1981) ("U.S. currency does not constitute personal property as defined since only property or interests in property that may result in gain or loss on their disposition are subject to the straddle limitations.").

[58] Reg. §301.6311-1(a)(1)(i) ("payment for internal revenue taxes, provided the checks, drafts, or money orders are collectible in United States currency at par"), *but see* §6316 (permits payment of taxes in foreign currency in limited circumstances).

[59] *See, e.g.*, §731(c), and H.R. Rep. No. 826, 103d Cong., 2d Sess. 189, n.10. ("… marketable securities are treated as money only for purposes of sections 731(a)(1) and 737."); Rev. Rul. 66-290, *obsoleted by* Rev. Rul. 2003-99 (cash and its equivalent includes any other item of similar nature); §6867(d)(2) (cash equivalent includes "any medium of exchange which … is of a type which has been frequently used in illegal activities"). *See also*, discussions of CBDCs as foreign currency and CVCs as commodities in Sections [2.d] and [4.b], respectively, analyzing potential treatment as "money" for purposes of §731.

[60] 138 S. Ct. 2067 (2018).

[61] §3201 *et seq.*

[62] *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2074 (2018).

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some other type of cryptocurrency[.]"[63] The majority declined to expand upon the customary usage of the term "money."[64] The Court held that *money was, and still is, a medium of exchange, which does not include other property*, and specifically for purposes of §3231(e)(1) did not include stock options.[65]

However, the majority engaged in the debate by specifically addressing Justice Breyer's concern that the majority's definition leaves the statute "trapped in a monetary time warp, forever limited to those forms of money commonly used in the 1930's."[66] The majority rejected that worry by acknowledging that *what qualifies* as a medium of exchange, and therefore meets its definition of money, has been dynamic:

> While every statute's *meaning* is fixed at the time of enactment, new *applications* may arise in light of changes in the world. So "money," as used in this statute, must always mean a "medium of exchange." But what *qualifies* as a "medium of exchange" may depend on the facts of the day. Take electronic transfers of paychecks. Maybe they weren't common in 1937, but we do not doubt they would qualify today as "money remuneration" under the statute's original public meaning.[67]

Justice Breyer's dissent prompted the majority to offer a significant explanation — what qualifies as money depends on the facts of the day.

c. *Realization Is Measured in Money (Functional Currency)*

The sale or other disposition of property, including digital assets, is a realization event under §1001. Gain or loss realized is the difference between the adjusted basis of the property and the amount realized. The amount realized is "the sum of any money received plus the fair market value of the property (other than money) received."[68] The adjusted basis of property is its cost under §1012 which may be adjusted as provided in §1016.[69] The cost of property, and adjustments thereto, are determined in the taxpayer's functional currency.[70] There can be no gain or loss under §1001 for a U.S. dollar functional currency taxpayer if U.S. dollars are exchanged only for U.S. dollars.

In *Bates v. United States*,[71] the taxpayer asserted that he had not realized any taxable gain from a sale of securities in 1935 that he had purchased during the period 1931 to 1933. Congress had changed the statutory gold content of the dollar between the date that he had purchased the securities and the date that he sold the securities. The taxpayer claimed that, despite a difference of over $40,000 in the purchase price and subsequent selling price of the securities, he failed to realize any taxable gain from the transaction because of the intervening change in the statutory gold content of the dollar. Comparison of the value of the dollars used to purchase the securities with that received for their sale, he argued, revealed that no gain had in fact been realized. In rejecting the taxpayer's assertion, the court stated:

> We are of the opinion that judicial decisions and statutory enactments neither recognize, nor, by implication, attach any significance to the statutory gold content of the dollar as a factor in the determination of gain from the sale of capital assets. The standard unit of computation is the money dollar, an abstract or ideal unit of account. This standard unit of money has not changed in money value throughout the existence of our monetary system. There have been changes from time to time in the form of the physical representatives of money, but lawful money in the United States has been the same since the Act of Congress of April 2, 1792, provided that "The money of account of the United States shall be expressed in dollars or units, dimes or tenths, cents or hundredths, and mills or thousandths, a dime being the tenth part of a dollar, a cent the hundredth part of a dollar, a mill the thousandth part of a dollar … ."[72]

In sum, for a U.S. dollar functional currency taxpayer, exchanges of U.S. dollars do not give rise to gain or loss, but an exchange of any other currency or property is generally a §1001 realization event.[73] Therefore, the amount realized upon exchanges of digital assets, is measured in "money" for purposes of §1001, which always means the U.S. dollar for a U.S. dollar functional currency taxpayer.[74]

3. *Currency*

The Code does not define currency generally.[75] As explained below, most convertible virtual currencies (CVCs) appear unlikely to be considered "real" currency for federal income tax purposes without legislative action. However, the issuance of a U.S. Central Bank Digital Currency (CBDC)[76] or future Treasury guidance characterizing the treatment of foreign

[63] *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2076, (2018).

[64] *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2072 (2018).

[65] *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2074–75 (2018). *See also* Reg. §1.83-3(e) (for purposes of §83, the term "property" excludes money).

[66] *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2076 (2018).

[67] *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2074–75 (2018) (emphasis in original).

[68] §1001(b).

[69] §1011(a).

[70] Rev. Rul. 78-281; TAM 8749008.

[71] 108 F.2d 407 (7th Cir. 1939), cert. denied, 309 U.S. 666 (1940).

[72] 108 F.2d at 408 (citations omitted).

[73] *Gillin v. United States*, 423 F.2d 309 (Ct. Cl. 1970) (foreign currency was property or a commodity).

[74] Note that when currency has a value exceeding its face (a numismatic item such as coins valued for their rarity or intrinsic metal value) it no longer functions as "money" within the meaning of §1001(b). Instead, the currency is treated as "property (other than money)," and valued at fair market value for purposes of §1001(b) in U.S. dollars. *See Calif. Fed. Life Ins. Co. v. Commissioner*, 76 T.C. 107, 111–12 (1981), aff'd, 680 F.2d 85 (9th Cir. 1982); *Smith v. Commissioner*, T.C. Memo 1998-148; Rev. Rul. 68-634.

[75] *See* §7701.

[76] CBDCs are virtual currencies engineered by the government itself; permissionless virtual currencies, like Bitcoin, are privately engineered but have been adopted as legal tender in certain jurisdictions. See discussion of El Salvador's adoption of Bitcoin in IV.A.3.b., below. The U.S. Federal Reserve is exploring the issuance of a CBDC and issued a discussion paper examining a potential U.S. CBDC. *Money and Payments: The U.S. Dollar in the Age of Digital Transformation,* Board of Governors of the Federal Reserve System (Jan. 2022).

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CBDCs[77] as "real" currency would have important tax consequences.

a. Currency — In General

Ordinarily, *currency* is considered an item that circulates, and is customarily used and accepted as a medium of exchange.[78] In Rev. Rul. 74-218, the IRS defined the term "currency" as being, "in its usual and ordinary acceptation[:] gold, silver, other metals or paper used as a circulating medium of exchange, and [it] does not embrace bonds, evidences of debt, or other personal property or real estate."[79] In Rev. Rul. 76-214, the IRS, citing the definition of "currency" provided in Rev. Rul. 74-218, held that gold coins — which were no longer circulating mediums of exchange in their respective countries — were "property" rather than currency or money for purposes of §1031.[80]

b. Convertible Virtual Currency

The Treasury Department provided substantive guidance describing virtual currency and convertible virtual currency (CVC) in separate guidance from both the IRS and Financial Crimes Enforcement Network (FinCEN).[81] The IRS describes "virtual" currency as "a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value."[82]

Comparatively, "real" currency is described as "the coin and paper money of the United States or of any other country that is designated as legal tender, circulates, and is customarily used and accepted as a medium of exchange in the country of issuance."[83] FinCEN similarly describes "virtual currency," in comparison to "real" currencies, as "a medium of exchange that can operate like currency but does not have all the attributes of 'real' currency, as defined in 31 C.F.R. §1010.100(m), including legal tender status."[84]

The Commodity Futures Trading Commission (CFTC) has also interpreted the term "virtual currency" in a manner generally consistent with the IRS. CFTC Staff Advisory No. 18-14 provides:

> The Commission interprets the term "virtual currency'" broadly, to encompass any digital representation of value that functions as a medium of exchange and any other digital unit of account used as a form of currency. Virtual currencies may be manifested through units, tokens, or coins, but do not have legal tender status.[85]

This Portfolio generally contemplates convertible virtual currencies (CVCs) even when using the term "virtual currency." An important concept is that a virtual currency with *an equivalent value in real currency*, or that acts as a *substitute for real currency*, is known as a CVC.[86] In other words, CVCs are convertible back into real currency. Thus, while all CVCs are virtual currency, not all virtual currency is convertible. An example of nonconvertible virtual currency is virtual currency earned as part of a game that does not leave the game environment.[87] Accordingly, while administrative authorities use both terms (virtual currency and CVC), sometimes interchangeably, they appear to exclusively contemplate CVCs and transactions where virtual currencies act as a substitute for real currency rather than siloed types of nonconvertible virtual currencies.

Notice 2014-21 and the IRS FAQs imply that a CVC could be treated as "real" currency for federal income tax purposes if it was: (i) issued by a central bank or other governmental body and had legal tender status in a jurisdiction; and (ii) circulated, and was customarily used and accepted, as a medium of exchange in the country of issuance.[88] In this regard, El Salvador became the first country to adopt Bitcoin (a CVC) as legal ten-

[77] CBDCs are generally stable coins, i.e., coins pegged to stable assets like the U.S. dollar, or the underlying fiat currency of the particular jurisdiction. For example, the Sovereign (SOV) is a virtual currency issued by and declared legal tender in the Republic of the Marshall Islands. Venezuela issued the Petro (PTR) backed by oil, gold, and mineral reserves. *See What is stablecoin?* Coinbase. *See also* Ted R. Stotzer, *Are Central Bank Cryptocurrencies Currency for U.S. Tax Purposes?*, 165 Tax Notes 223 (Oct. 14, 2019).

[78] *See* Black's Law Dictionary (10th ed. 2014) (*Currency*, "An item (such as a coin, government note, or banknote) that circulates as a medium of exchange.").

[79] Rev. Rul. 74-218 (foreign currency is not a security under §1091).

[80] Rev. Rul. 76-214 (exchange of bullion-type gold coins qualified for nonrecognition of gain as an exchange of property, rather than currency or money, under §1031(a)).

[81] *See* IV.A.3.d., below. FinCEN exercises regulatory functions primarily under the Currency and Financial Transactions Reporting Act of 1970, as amended by the USA PATRIOT Act and other legislation. This framework is commonly referred to as the "Bank Secrecy Act" ("BSA"). The Secretary of the Treasury has delegated to the Director of FinCEN the authority to implement, administer, and enforce compliance with the BSA and associated regulations. *See* Treas. Order 180-01 (July 1, 2014). Pursuant to this authority, FinCEN may issue regulations requiring financial institutions to keep records and file reports that are considered highly useful in criminal, tax, or regulatory investigations, risk assessments, or proceedings, or in the conduct of intelligence or counterintelligence activities, including analysis, to protect against terrorism. 31 U.S.C. §5311, as amended by the National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116-283, §6101(a). Additionally, FinCEN is authorized to impose suspicious activity reporting requirements and minimum standards for programs on anti-money laundering and countering the financing of terrorism for financial institutions. 31 U.S.C. §5318(g), 31 U.S.C. §5318(h), as amended by Pub. L. No. 116-283, §6101(b), §6202, §6206, §6212.

[82] *See* Notice 2014-21, §2, and IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-1.

[83] *See* Notice 2014-21, §2, and IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-1.

[84] *Guidance on the Application of FinCEN's Regulations to Certain Business Models Involving Virtual Currencies*, FIN-2019-G001, §1.3, Financial Crimes Enforcement Network (FinCEN), (May 9, 2019) (FinCEN 2019 Guidance). FinCEN 2019 Guidance consolidates guidance issued since 2011 and applies the same interpretive criteria to other common business models involving convertible virtual currencies including significant guidance issued in 2013. *See Guidance on the Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies*, FIN-2013-G001, Financial Crimes Enforcement Network (FinCEN), (Mar. 18, 2013) (FinCEN 2013 Guidance).

[85] CFTC Staff Advisory No. 18-14, §I (May 21, 2018). *See also* Retail Commodity Transactions Involving Virtual Currency, 85 Fed. Reg. 37734 (June 24, 2020).

[86] FinCEN 2019 Guidance, §1.3 (emphasis added). *See also* Notice 2014-21 (incorporating the same attributes as the FinCEN 2013 Guidance and referencing that guidance for a more comprehensive description of convertible virtual currencies).

[87] Transacting in nonconvertible virtual currencies in this context does not need to be indicated on a taxpayer's tax return. *IRS Statement on Changes to Virtual Currency Webpage.*

[88] Notice 2014-21, §2 (implying that legal tender status in any jurisdiction may qualify a convertible virtual currency as a real currency); IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-1 (directly excluding digital representations of the U.S. dollar or a foreign currency from the definition of virtual currency because these constitute "real currency").

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der in late 2021.[89] Although Bitcoin was intended to be used as a medium of exchange[90] — it is more often used as a store of value. Notice 2014-21 indicates circulation *in the country of issuance* as a medium of exchange is a hallmark of a "real currency."[91] The government of El Salvador is not the issuer of Bitcoin, and the IRS has not issued additional guidance suggesting that the adoption of Bitcoin as legal tender in a jurisdiction where it circulates, and is used and accepted, as a medium of exchange would change the classification of Bitcoin from a CVC to a "real" currency.

c. Foreign Currency May Include CBDCs

The Tax Reform Act of 1986[92] added §985 through §989 (subpart J) to establish a *conceptual framework* for the taxation of foreign currency, and also amended §954 to provide new rules regarding the treatment under subpart F of subchapter N of the Code of foreign currency transactions entered into by controlled foreign corporations (CFCs). The statutory amendments have been fortified by a series of temporary, proposed, and final regulations, which together address three broad areas: (i) the determination of a taxpayer's "functional currency;" (ii) the treatment of exchange gain or loss resulting from "nonfunctional currency" denominated transactions; and (iii) the issues related to foreign currency translation. Special rules applying to foreign currency transactions are beyond the scope of this Portfolio.[93] However, certain collateral tax consequences of characterization of CBDCs as foreign currency are contemplated below.

Under that framework, all determinations for U.S. income tax purposes are made in the taxpayer's functional currency or in the functional currency of a "qualified business unit" (QBU) of the taxpayer. A QBU is any separate and clearly identified unit of a trade or business of a taxpayer that maintains separate books and records.[94] As a general matter, the functional currency of a U.S. taxpayer or QBU will be the U.S. dollar, and the functional currency of a foreign taxpayer or QBU will be the currency of the economic environment in which the unit conducts a significant part of its activities and maintains its books and records.

"Foreign currency" is not directly defined by subpart J. Section 985 does, however, require all taxpayers to account for their activities in U.S. dollars subject to certain exceptions including QBUs. However, regulations issued under §989 relied upon the considerable regulatory authority in this area to adopt an approach more consistent with the functional currency concept by providing that corporations (including foreign corporations) and certain other taxpayers are treated as *per se* QBUs, thereby broadening the categories of taxpayers entitled to select a non-U.S. dollar functional currency under the economic environment standard of §985(b)(1)(B) and narrowing the categories required to use the U.S. dollar under the general rule. "Foreign currency," therefore, is generally understood as currency other than the taxpayer's functional currency.[95]

Returning to CBDCs — If the U.S. Federal Reserve determines to proceed with issuance of a U.S. CBDC authorized as legal tender by Congress, it is likely to simply be "money."[96] Less understood is the characterization of CBDCs issued by other jurisdictions. When Notice 2014-21 was issued, no virtual currency had legal tender status in any jurisdiction.[97] In the years since, jurisdictions have adopted existing permissionless CVCs as legal tender or created homegrown government engineered CBDCs.[98]

The existing IRS guidance specifically excludes a digital representation of a foreign currency from the definition of virtual currency.[99] Consequently, a CBDC issued by a foreign jurisdiction[100] is very likely to be characterized as "real" foreign currency for federal income tax purposes. If a taxpayer or QBU enters into certain types of transactions denominated in a nonfunctional currency, referred to as "§988 transactions," §988 addresses the amount, timing, character, and source of exchange gain or loss resulting from such transactions. If CBDCs are characterized like real foreign currency for federal tax purposes, then §988 may apply. If §988 applies to transactions in CBDCs, any number of taxpayer consequences are implicated.

[89] *See* Sarah Paez, *El Salvador Makes Bitcoin Legal Tender*, 171 Tax Notes 1830 (June 14, 2021).

[90] The Bitcoin whitepaper described it as "[a] purely peer-to-peer version of electronic cash [that] would allow online payments to be sent directly from one party to another without going through a financial institution[.]" Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (Oct. 31, 2008).

[91] *See* Notice 2014-21, §2.

[92] Tax Reform Act of 1986, Pub. L. No. 99-514, 100 Stat. 2085.

[93] For further discussion, see 6660 T.M., *Tax Aspects of Foreign Currency* (Foreign Income Series).

[94] *See* §989(a).

[95] §985(b); Reg. §1.985-1(b)(1). Other Code provisions may refer to "foreign currency" without defining its attributes or, when defined, in limited terms. *See also* Reg. §1.6045-1(a)(11) (defining "foreign currency" to mean currency of foreign country), Reg. §1.6050I-1(c)(1) (defining cash as "[t]he coin and currency of the United States or of any other country, which circulate in and are customarily used and accepted as money in the country in which issued"); §6867(d)(2) (cash equivalents include foreign currency).

[96] *See* II.B.8., above. In *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067 (2018), the Supreme Court held that money must always be a medium of exchange but noted that what qualifies depends upon the facts of the day. A U.S. CBDC would, presumably, qualify as a medium of exchange and, therefore, be money.

[97] Notice 2014-21, §2.

[98] Jurisdictions have adopted existing convertible virtual currencies, e.g., Bitcoin, and created homegrown virtual currencies or CBDCs, e.g., the Marshal Islands SOV, with legal tender status in the years since Notice 2014-21 was issued. *See* Ted R. Stotzer, *Are Central Bank Cryptocurrencies Currency for U.S. Tax Purposes?*, 165 Tax Notes 223 (Oct. 14, 2019).

[99] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-1 ("Virtual currency is a digital representation of value, other than a representation of the U.S. dollar or a foreign currency ('real currency'), that functions as a unit of account, a store of value, and a medium of exchange").

[100] Over 100 countries are researching CBDC's, a handful are participating in active pilot CBDC programs, and Jamaica and Bahamas have launched a live CBDC. *See* Central Bank Digital Currencies Status.

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For now, guidance generally supports characterization of CVCs as property subject to general federal income tax principles applicable to property transactions. Future guidance, particularly with respect to CBDCs, could consider them foreign currency subject to the special rules that apply to foreign currency transactions under subchapter N, part III, subpart J of the Code (§985–§989).[101]

d. Convertible Virtual Currency Is Subject to FinCEN Regulations

As discussed above, convertible virtual currency does not meet the definition of *currency* in the regulations issued by FinCEN, because of a requirement that currency be legal tender.[102] However, the FinCEN guidance provided that a convertible virtual currency is *value that substitutes for currency*.[103] According to FinCEN guidance:

> [A]s money transmission involves the acceptance and transmission of value that substitutes for currency *by any means*, transactions denominated in CVC will be subject to FinCEN regulations regardless of whether the CVC is represented by a physical or digital token, whether the type of ledger used to record the transactions is centralized or distributed, or the type of technology utilized for the transmission of value.[104]

The previously issued FinCEN regulations define money transmission services to mean: "the acceptance of currency, […] or *other value that substitutes for currency* from one person and the transmission of currency, […] or *other value that substitutes for currency* to another location or person by any means."[105] Thus, while a CVC is unlikely to meet the definition of *currency*,[106] the FinCEN guidance clarified that a person accepting and transmitting a CVC could be treated as a "money transmitter" based on it being other value that substitutes for currency.

4. Securities

Many taxpayers are regulated under a complicated set of securities laws. Analysis of U.S. securities laws is well beyond the scope of this Portfolio, but whether digital assets are "securities" is of importance due to the taxpayer's own legal or regulatory circumstances and when applying certain Code sections. For U.S. federal income tax purposes, whether a digital asset constitutes a security for a particular purpose will depend on the definition of security applicable for that purpose.[107] Although the Infrastructure Act defines digital assets as a covered security for purposes of §6045, this is not applicable to analysis under every Code section.

Various sections of the Code and Regulations provide definitions for the terms "security" or "securities." However, the various definitions are not consistent and are sometimes omitted for provisions taxpayers would find highly relevant when dealing with digital assets.[108] Although the Infrastructure Act defines digital assets as a covered security for purposes of §6045, this is not applicable to every Code section. Accordingly, when analyzing the application of these provisions to digital assets, it is necessary to consider the nature of the assets at issue and the applicable definition of security. Example of provisions that require analysis of the definition of security discussed in this Portfolio include the mark-to-market accounting rule under §475 discussed in V.C., below,] and provisions governing contributions to partnerships discussed in VI.A., below.

5. Commodity

a. Commodities — Ordinary Financial Meaning

Generally, if a word is not defined in a statute — as is the case for the term "commodity" *for general purposes of the Code* — it would usually be considered to have its ordinary and common meaning.[109] The Merriam-Webster online dictionary defines "commodity" in the first instance as: "an economic good: such as [1.a]: a product of agriculture or mining//agricultural *commodities* like grain and corn[;] [1.b]: an article of commerce especially when delivered for shipment//reported the damaged *commodities* to officials[;] [1.c]: a mass-produced unspecialized product//*commodity* chemicals//*commodity* memory chips.[110]

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[101] For further discussion, see 6660 T.M., *Tax Aspects of Foreign Currency* (Foreign Income Series).

[102] 31 C.F.R. §1010.100(m) (defining currency as: "[t]he 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)).

[103] FinCEN 2019 Guidance, §1.3.

[104] FinCEN 2019 Guidance, §1.3.

[105] 31 C.F.R. §1010.100(ff)(5)(i)(A) (emphasis added).

[106] *See* 31 C.F.R. §1010.100(m).

[107] *See e.g.,* H.R. 4763, the Financial Innovation and Technology for the 21st Century and; (ii) H.R. 1747, the Blockchain Regulatory Certainty Act (cite).

[108] *See, e.g.*, §165(g)(2) (defining the term 'security' for purposes of §165(g) as: (i) a share of stock in a corporation; (ii) a right to subscribe for, or to receive, a share of stock in a corporation; or (iii) a bond, debenture, note, or certificate, or other evidence of indebtedness issued by a corporation or by a government or political subdivision with interest coupons or in registered form), §1236(c) (defining the term 'security' for transactions by dealers in securities more expansively than §165(g)(2) (no requirement that debt be issued by a corporation or by a government or political subdivision with interest coupons or in registered form, and including the right to subscribe to or purchase either a stock or bond, debenture, note, or other evidence of indebtedness); and including a certificate of stock or interest in any corporation), §475(c)(2) (defining the term 'security' for purposes of mark-to-market accounting more expansively than §1236(c) as it includes interest rate and currency notional principal contracts, currency derivatives, and positions which are not securities but hedge a security).

[109] 2A Sutherland Statutory Construction §47:27 (7th ed., 2014) ("Adjudicators typically account for this issue with a blanket statement, often along the lines of: 'Usually the words of a statute must be construed in accordance with their ordinary and common meaning unless they have acquired a technical meaning or unless a definite meaning is apparent or indicated by the context of the words.'").

[110] Commodity Definition & Meaning — Merriam-Webster. Recognized dictionaries can provide an ordinary and common meaning for a term not defined by a statute. 2A Sutherland Statutory Construction §47:28 (7th ed., 2014).

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When used in Code provisions related to investing, trading, or hedging activities,[111] "commodity"[112] may be argued to have its ordinary *financial* meaning.[113]

In Rev. Rul. 73-158, the IRS specifically considered the meaning of the term "commodity" and concluded that it was used in its ordinary *financial* sense for purposes of §864(b)(2)(B).[114] The ruling provides that the term "commodity" includes all products traded on U.S. commodity exchanges.[115] The ruling further clarified that the word "commodities" includes the actual commodity and futures contracts on the commodity. Under the reasoning of the ruling, digital assets that are traded on U.S. commodity exchanges, and futures contracts on such digital assets, may be considered commodities. Contracts and options on BTC and ETH are currently traded on certain U.S. commodity exchanges.[116]

b. *CFTC — Virtual Currencies Are Properly Defined as Commodities*

Absent a specific definition for "commodity" in the trading, investing, and hedging provisions of the Code, it could be argued that a designation made by the CFTC of property as a commodity suggests that the property is a commodity in the ordinary financial sense of the term.[117]

In 2015, the CFTC concluded that bitcoin and other types of virtual currencies were properly defined as a commodity.[118] Subsequently, in *CFTC v. McDonnell*, the District Court for the Eastern District of New York held that virtual currencies "fall well-within the common definition of 'commodity' as well as the Commodity Exchange Act's definition of 'commodities.'"[119] The CFTC reiterated its interpretation that virtual currencies are commodities in CFTC Staff Advisory No. 18-14 in 2018[120] and in final interpretive guidance published in 2020.[121]

The SEC has not explicitly agreed with the CFTC's classification of digital assets and virtual currencies as commodities, the SEC and CFTC issued the following joint statement in 2018:

> When market participants engage in fraud under the guise of offering digital instruments — whether characterized as virtual currencies, coins, tokens, or the like — the SEC and the CFTC will look beyond form, examine the substance of the activity and prosecute violations of the federal securities and commodities laws.
>
> The Divisions of Enforcement for the SEC and CFTC will continue to address violations and to bring actions to stop and prevent fraud in the offer and sale of digital instruments.[122]

For this reason, the CFTC conclusion that virtual currencies are commodities could be referenced to make the case that the same characterization may be appropriate for federal income tax purposes generally. Specifically, if the statutory context indicates that the ordinary *financial* meaning of the term "commodity" should apply, then the determination that a particular digital asset is a commodity by the CFTC — the administrative agency principally charged with interpreting the term for purposes of regulating contracts for future delivery of a commodity[123] — may be influential in appropriately classifying the asset for U.S. federal income tax purposes.[124] Although

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[111] *See, e.g.,* §59A(h)(4)(A)(iii) ("Any commodity which is actively traded."), §199A(d)(2)(B) ("commodities (as defined in section 475(e)(2)")), §475(e)(2)(A) ("any commodity which is actively traded (within the meaning of section 1092(d)(1)"), §864(b)(2)(B), §954(c)(1)(C) (final regulations provide that the term commodity "includes any personal property of a kind that is actively traded or with respect to which contractual interests are actively traded," *see* Reg. §1.954-2(f)(2)(i)), §1061(c)(3) ("commodities (as defined in section 475(e)(2))"), §1411(c)(2)(B) ("commodities (as defined in section 475(e)(2))"), §1471(d)(5)(C) ("commodities (as defined in section 475(e)(2))"), §4975(f)(11)(D)(ii) ("The term 'commodity' has the meaning given such term by section 475(e)(2) (without regard to subparagraph (D)(iii) thereof)").

[112] *Holloway v. United States*, 526 U.S. 1, 7 (1999) ("the meaning of statutory language, plain or not, depends on context") (quoting *King v. St. Vincent's Hosp.*, 502 U.S. 215, 221 (1991)); *Alberts v. Royal Caribbean Cruises, Ltd.*, 834 F.3d 1202 (11th Cir. 2016) ("courts should assume the contextually appropriate ordinary meaning unless there is reason to think otherwise"); Antonin Scalia and Bryan Garner, *Reading Law: The Interpretation of Legal Texts*, Location 1212 (Kindle Ed., 2012).

[113] *Bos. Sand & Gravel Co. v. United States*, 278 U.S. 41, 48 (1928) ("If Congress has been accustomed to use a certain phrase with a more limited meaning than might be attributed to it by common practice, it would be arbitrary to refuse to consider that fact when we come to interpret a statute.").

[114] Rev. Rul. 73-158.

[115] *See, e.g.,* Rev. Rul. 73-158 (the IRS ruled that raw sugar (which was also sold on the New York Coffee and Sugar Exchange, an organized commodity exchange, was a "commodity" for purposes of §864(b)(2)(B)).

[116] *See* V.D.3., below.

[117] Private rulings issued after Rev. Rul. 73-158 ruled that the term "commodity" for purposes of §864(b)(2)(B) was not limited to those items or products dealt with on U.S. commodity exchanges. *Compare* PLR 8540033 (concluding that items or products underlying cash-settlement contracts traded on U.S. commodity exchanges were commodities), and PLR 7743083 (without reference to Rev. Rul. 73-158, the IRS ruled that foreign currency futures as are customarily dealt with on the IMM were considered commodities), *with* PLR 8527041 (ruling that the term "commodities" included spot and forwards contracts for precious metals and foreign currencies, even if the contracts were not actually traded on an organized U.S. commodity exchange), PLR 8850041 (sometimes known as the "Malaysian Ringgit ruling," the IRS, without reference to Rev. Rul. 73-158, ruled that foreign currency futures, forward, options, and spot contracts, including foreign currencies and contracts therein that were not traded on U.S. commodity exchanges, were commodities), and PLR 8326013 (ruling that the term "commodities" included foreign currency forward contracts in foreign currencies that were traded on a U.S. commodity exchange). See IV.B., below, discussing classification of digital assets as securities.

[118] *See In re Coinflip, Inc., d/b/a/ Derivabit, et al., Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings and Imposing Remedial Sanctions, CFTC Docket No. 15-29 (Sept. 17, 2015)* ("Bitcoin and other virtual currencies are encompassed in the definition and properly defined as commodities").

[119] *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018).

[120] CFTC Staff Advisory No. 18-14, §I (May 21, 2018).

[121] *Retail Commodity Transactions Involving Certain Digital Assets*, 85 Fed. Reg. 37,734 (June 24, 2020) (final interpretation for the term "actual delivery" as applied to retail commodity transactions involving virtual currencies).

[122] *Joint statement from CFTC and SEC Enforcement Directors Regarding Virtual Currency Enforcement Actions*, Commodity Futures Trading Commission (January 19, 2018).

[123] 7 U.S.C. §1a(9) (defining "commodities" as "all other goods and articles … in which contracts for future delivery are presently or in the future dealt in.").

[124] *See* Administrative Procedures Act (5 U.S.C. §706); *Tsosie v. Califano*, 651 F.2d 719, 722 (10th Cir. 1981) (an agency's construction is not entitled to special deference to the extent it rests on the interpretation of another agency's statutes and regulations); preamble to NPRM REG-123600-16, 81 Fed. Reg. 66,576 (Sept. 28, 2016) (Prop. Reg. §1.851-2) (explaining that determining whether certain investments providing regulated investment companies with commodity exposure are securities requires the IRS implicitly to determine what is a security within the meaning of §2(a)(36) of the Investment Company Act of 1940 (1940 Act); however, §38 of the 1940 Act grants exclusive rulemaking authority under the 1940 Act to the SEC, and therefore any future guid-

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a CFTC determination is not conclusive, a CFTC determination that property is a commodity may cause it to be included as a commodity in the ordinary *financial* sense of the word.[125] However, in this regard, a remaining consideration may be whether the functionality or uses of the digital asset affect the status of the digital asset as a commodity in a financial sense.[126]

Commentary: Should the utilities or benefits available to the owner of the asset by virtue of such ownership affect whether the asset may be considered a commodity in a financial sense regardless of the boundaries drawn by regulatory agencies? In the ordinary financial sense, commodities arguably might be viewed as fungible physical resources necessary in producing other products. Could one view utility-based digital assets or cryptocurrencies in the same manner in a virtual context? For instance, ETH does not have any underlying redemption value, or other intrinsic economic rights. However, any party intending to transact on Ethereum directly, or host decentralized applications that records transactions on Ethereum, needs ETH as a requisite input to accomplish these tasks.

As with the definition of "security," it is also possible that the term "commodity" may be given different meanings for purposes of different Code provisions depending on the intended purpose and scope of the Code § in question.

B. Accounting Treatment of Digital Assets

Much like tax, there is little guidance on point for the accounting treatment of digital assets and associated transactions. Companies transacting in digital assets typically use existing rules, guidance, and frameworks on the accounting side, as applied to traditional asset classes, and build comparisons of traditional asset classes to digital assets for purposes of applying such rules.[127] While there are some authorities that exist on the accounting side, the treatment of digital assets, like many traditional asset classes, will often follow a different path under the accounting rules than under the tax rules. As a result, the accounting treatment may not always be the right place to start any tax analysis. Much like traditional transactions, the tax treatment of a digital asset transaction may generate different timing of revenue recognition than accounting. And in other circumstances, we may see an asset or transaction related to a digital asset recorded for tax purposes but not appearing in a company's books and records at all. There are fundamental differences in the treatment of digital assets for tax and accounting purposes across most transactions.

As an example, the Financial Accounting Standards Board (FASB) issued an accounting standard update that requires investments in certain digital assets be measured at fair value for accounting purposes.[128] While some companies who mark-to-market for tax purposes may follow this treatment, most will not have a realization event until the digital assets are used, exchanged or disposed. Another area where tax treatment may differ from book accounting is revenue recognition for companies that denominate contracts in units of digital assets. For book purposes, this may require an accounting for the contract at the fair value of the digital asset at contract date as well as a derivative to account for the change in value until the date of settlement. The tax treatment is likely to differ from the accounting treatment of these contract types. There are also unique considerations associated with transaction fees related to acquired digital assets which may be expensed for accounting purposes but could be capitalized for tax. Further, given the lack of guidance on digital asset transactions, care must be taken on the analysis of uncertain tax positions in a company's financial statements. This Portfolio focuses on the tax treatment of digital assets, but it is important to also exercise caution in the examination of and comparison to the accounting treatment in the areas mentioned above as well as more broadly.

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ance regarding whether particular financial instruments are securities for purposes of the 1940 Act is within the jurisdiction of the SEC).

[125] *See, e.g.,* PLR 8540033 (reasoning that CFTC rather than SEC regulation was evidence that a cash settlement contract should be considered a commodity in ordinary financial sense).

[126] See IX.B.2., below, for discussion on commodities classification pertaining to §954(c)(1)(C).

[127] For nonauthoritative interpretive guidance, see American Institute of Certified Public Accountants, *Accounting and Auditing of Digital Assets* (Dec. 2022).

[128] *See* FASB Accounting Standards Update No. 2023-08, *Intangibles — Goodwill and Other — Crypto Assets(Subtopic 350-60), Accounting for and Disclosure of Crypto Assets* (Dec. 2023).

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V. Dealing, Trading, Using and Investing in Digital Assets

A. Introduction

As a general matter, many of the long-standing rules that govern the taxation of financial transactions and property transactions govern the taxation of transactions that involve dealing, trading, using and investing in digital assets. In addition to considering the characterization of the relevant digital asset in question (as set forth in III.B., above), it is also often necessary to characterize the activities and status of the relevant taxpayer. The following discussion focuses on the rules that may apply to taxpayers that transact with digital assets, including using digital assets to pay for other property or services, as well as taxpayers that may be classified as an investor, a trader or a dealer in digital assets.

The distinction between investors, traders and dealers is particularly relevant for a number of provisions. For example, dealers and traders in commodities are generally eligible to make a mark-to-market election under §475(e)(1) or §475(f)(2), respectively, while investors are not eligible for those elections. As another example, taxpayers considered to be traders in certain assets may generate effectively connected income (ECI), while investors generally would not.[129] Other rules, however, may apply equally to different categories of taxpayers. For example, the straddle rules of §1092 generally apply to dealers, traders and investors in the same manner. The discussion below will point out where a distinction between these categories of taxpayers is relevant.

As a general matter, investors, traders and dealers may be described as follows:[130]

> Investor: An investor generally is a passive manager of its holdings that derives profit from accumulating earnings on its holdings and long-term appreciation. Investors generally would hold digital assets as capital assets.
>
> Trader: A trader engages in frequent purchasing and selling to profit from favorable changes in market prices. The determination of whether a taxpayer is a trader, as opposed to an investor, is primarily informed by the relevant case law. Traders generally would hold digital assets as capital assets but may recognize ordinary gain or loss if a mark-to-market election is made under §475(f).
>
> Dealer: A dealer makes a market in property (such as digital assets) by purchasing from and selling such property to customers and seeks to profit from creating such a market. A dealer generally would hold digital assets as ordinary assets.

Given the fact that digital assets can be self-custodied and exchanged in a peer-to-peer manner outside of the confinement of an exchange or brokerage, many interesting questions are raised with regards to basis tracking and appropriate methodologies for digital asset owners to recover their tax basis. The fact that barter exchanges for services may occur frequently in the normal course of transacting with these assets (e.g., BTC transaction fees paid to miners or ETH gas paid to validators) further complicates how all taxpayers, be it investors, traders, or dealers, should think about basis tracking methodologies for digital assets.

The discussion below begins with the threshold issue of tracking the tax basis of digital assets and identifying which assets were sold. Next the discussion turns to the question of the tax consequences of using digital assets to pay for goods or services or exchanging digital assets for other property. The discussion then addresses many of the more specific rules governing the taxation of financial transactions for dealers, traders, and investors in digital assets.

B. Identifying Property, Tracking Basis and Character

1. Fungibility and Traceability — Commentary

Digital assets are sometimes said to be perfectly fungible and traceable. This assertion is only roughly correct, and the degree of truth it contains differs markedly from one digital asset to another.

Cryptocurrencies and tokens are generally fungible in the same way that dollars or units of currency are fungible. One bitcoin or ETH typically confers the same purchasing power and utility as any other unit of cryptocurrency of the same type. There are some minor exceptions where otherwise identical instances of the same cryptocurrency could differ from their "face" value. For example, a unit of cryptocurrency with a clear provenance showing no connection with undesirable persons or activities may command a premium over an otherwise equal unit of the same currency with more uncertain origins. Similarly, where a blockchain has experienced one or more chain splits or forks, an older unit of cryptocurrency may have greater value to the extent that it is associated with unspent and unmoved units.

The situation is very different for the wide range of digital assets known collectively as NFTs (nonfungible tokens). As their name suggests, each NFT represents a unique set of legal rights, content or functionality that is not identical or interchangeable with any other digital asset.

The traceability of cryptocurrencies and tokens — the ability to identify which digital asset(s) are involved (or not involved) in a transaction — differs considerably from one class of digital asset to another and from fact pattern to another. The differences can be illustrated by contrasting the commonly used Unspent Transaction Output (UTXO) and account models for cryptocurrency.

> *Example 1:* In the UTXO model (used for Bitcoin), cryptocurrency holdings are represented by blockchain records known as UTXOs. A holder acquires a separate UTXO for each instance where cryptocurrency was received as a transfer, a mining reward or "change" in a transaction.[131] Change occurs when a holder does not have one or more

[129] The application of the safe harbor for ECI for traders in securities and commodities is separately addressed in detail in IX.A., below.

[130] For further discussion of the activities of dealers, traders and investors in the context of §475, see V.D.2., below.

[131] Jake Frankenfield, *UTXO Model: Definition, How It Works, and Goals,* INVESTOPEDIA (Apr. 15, 2022).

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UTXOs equaling the exact amount of cryptocurrency they wish to transfer in the same way that a customer having only a $10 bill and a $5 bill must get change for a $12 purchase. Thus, assume a holder has two UTXOs, a high-basis UTXO of 5 and a low-basis UTXO for 3, but wishes to transfer 6. The taxpayer transfers both UTXOs for a total of 8 and receives a new UTXO of 2 representing the "change."

Upon completion of the transaction, the blockchain record will show that the taxpayer transferred 8 (5 + 3) and received 2, resulting in a net expenditure of 6. The ledger contains no further information indicating how much of each of the UTXOs (5 and 3) was spent in the transaction; it could be 5 high basis and 1 low basis, or 4 high basis and 2 low basis, or 3 high basis and 3 low basis. Thus, the ledger lacks the basic information to: (i) compute gain (loss) on the transfer because the allocation between the high-basis and low-basis UTXO is unknown and unknowable; and (ii) determine the basis of the change UTXO of 2. Note that all 3 of these UTXOs are separate and distinct records on the ledger, and the values they represent are fungible, but the ability to trace their origin and disposition is imperfect. The tracing difficulties exemplified do not arise with every transaction, but given the ubiquity of "change" transactions, they are widespread.

Example 2: In the account model (used for Ethereum), the blockchain record shows holdings as accounts and has a single record showing the balance of each account.[132] If the holder in the example above used a single account, the ledger would show a balance of 8 prior to the transaction and 2 after the transaction. The account balance of 8 does not reflect that it is composed of two different amounts acquired at different times and at different costs, and this creates the same inability to identify how much of each of these amounts was spent that arises with UTXO and what tax basis remains in the account after the transaction.

2. On-chain vs. Off-chain Transactions; Custodians — Commentary

Both of the foregoing examples illustrate the operation of "on chain" transactions where the holder has custody and control of the cryptocurrency and thus initiates its own transactions that are recorded directly on the blockchain. For such situations, holders use various strategies to improve their ability to control and trace the flow of cryptocurrencies. A holder on either a UTXO or an account-based blockchain might establish different wallets and addresses for different purposes, such as separate wallets for high vs. low basis or capital vs. ordinary assets. In general, these strategies seek to enhance the ability of the holder to select which cryptocurrency is transacted and to substantiate this choice.

Many holders of cryptocurrencies use the services of a third party to hold their cryptocurrencies and facilitate transactions. In some cases the third party acts as a custodian with the primary obligation to safeguard the digital assets. Such custodians typically maintain the assets of customers in segregated wallets such that each customer retains legal title to identifiable digital assets; transactions are typically made on chain as instructed by the customer. In other cases, such as the typical cryptocurrency exchange, the third-party acts as a broker that takes legal title to, and exercises custody and control over, the digital assets of its customers.[133] The broker holds the digital assets of its customers in aggregated wallets or accounts. A customer simply has a claim against the broker for the digital assets credited to its account and does not have direct control of any particular units of cryptocurrency on any blockchain. Transactions are implemented "off chain" by adjusting the books and records of the broker and are not recorded on the applicable blockchains. The operation is similar to a brokerage account for traditional assets such as stock and bonds held in "street name."

The interposition of a third-party between the holder and the cryptocurrency has significant consequences for identifying the cryptocurrency being transacted and tracing basis. In comparison to on-chain transactions, the holder doing business through a holder has lost whatever ability it possessed to directly control which items of cryptocurrency are being transacted and no longer has access to whatever tracing information would have been available if the transactions were conducted on-chain. Unless the holder establishes a segregated wallet or address for their holdings, the only sources of control and information are now the communications with the third party.

3. IRS Guidance

The IRS has provided guidance on specific identification and basis tracking of digital asset in two forms: first, the FAQs hosted on the IRS website,[134] and second, the regulations under §1012 addressing the identification of units of fungible digital assets.[135]

The IRS FAQs on virtual currency provide that a taxpayer may choose which units of virtual currency are deemed to be sold, exchanged or otherwise disposed of if the taxpayer can specifically identify which unit or units of virtual currency are involved in the transaction and substantiate its basis in those units.[136] If the taxpayer does not or cannot identify specific units of virtual currency, the units are deemed to have been sold, exchanged, or otherwise disposed of in chronological order beginning with the earliest unit of the virtual currency purchased or acquired, that is, on a first in, first out (FIFO) basis.[137]

A taxpayer may identify a specific unit of virtual currency either by documenting the specific unit's unique digital identifier, such as a private key, public key, and address, or by records showing the transaction information for all units of a specific virtual currency, such as bitcoin, held in a single account, wallet, or address. This information must show: (i) the

[132] *UTXO vs. Account-Based Blockchains — Benefits and Drawbacks,* NERVOS NETWORK (Apr. 9, 2023).

[133] Krisztian Sandor, *What Is Crypto Custody?,* COINDESK (May 11, 2023).

[134] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions.*

[135] Discussed further in V.B.4., below.

[136] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-39.

[137] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-41.

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date and time each unit was acquired; (ii) the basis and the fair market value of each unit at the time it was acquired; (iii) the date and time each unit was sold, exchanged, or otherwise disposed of; and (iv) the fair market value of each unit when sold, exchanged, or disposed of, and the amount of money or the value of property received for each unit.[138]

Commentary: Documenting the "unique digital identifier" of a specific unit of virtual currency can be difficult or impossible to apply to blockchains using an account system because the account system does not maintain information on the level of "specific units" or assign any "unique digital identifiers" to such units. The UTXO model does maintain separate units that can be specifically identified with a public address or other identifier, but considerable problems and uncertainties remain. In the frequent case where the transaction involves sending multiple UTXOs and receiving an offsetting UTXO as "change," the "specific unit involved" is actually portions of multiple UTXOs with no way of identifying (absent some assumption or convention) how much of each was transacted. Even if this problem could be solved, the basis of each of the UTXOs will frequently be obscured by similar difficulties in prior transactions.

Establishing specific identification of the specific asset being transacted implies a spreadsheet-type system where records must be segregated by both type of cryptocurrency and the account, wallet or address in which the cryptocurrency is held. This approach appears to be based upon making the specific identifications on the books and records of the taxpayer and not by transacting (or attempting to transact) the desired units, which would offer great flexibility in identifying the most favorable units to transact as well as administrative simplicity. The FAQ requires the books and records to contain all the information required to do a specific identification tracing despite the mechanical challenges posed by both the UTXO and account models.

The IRS FAQs effectively establish FIFO as the default methodology or convention, with specific identification available as an alternative only if the taxpayer chooses to do so and can satisfy the documentation rules.[139] Although this may reverse the generally understood presumption that FIFO is only available when property cannot be specifically identified, FIFO is the default basis recovery methodology for securities transactions. In this light, the IRS seems to have chosen the securities basis tracking rules as the appropriate principles applicable to digital asset transactions. It is not clear whether specific identification and FIFO are elections made on a transaction-by-transaction or year-by-year basis or methods of accounting subject to the substantive and procedural rules of §446 and §481.

The IRS issued regulations under §6045 regarding reporting obligations with respect to cryptocurrency.[140] Included in these regulations are regulations under §1012 addressing the identification of units of fungible digital assets. These regulations are broadly consistent with the IRS FAQs addressed above and the §1012 discussion below. However the IRS acknowledged in the Preamble to the regulations that some taxpayers interpreted the IRS FAQs as permitting (or at least not prohibiting) specific identification or application of the first-in, first-out (FIFO) rule on a "universal" or "multi-wallet" basis.[141] The regulations, on the other hand, apply the specific identification or FIFO rules to the units held within the single wallet or account from which the digital assets disposed of were transferred.[142] In order to assist taxpayers in transitioning from prior practices, the IRS issued Rev. Proc. 2024-28 contemporaneously with the final regulations. The revenue procedure provides a safe harbor permitting taxpayers in certain circumstances to make reasonable allocations of units of cost basis among digital assets held in multiple wallets or accounts prior to January 1, 2025.[143]

Commentary: The IRS FAQs related to specific identification and Rev. Proc. 2024-28 apply only to taxpayers who hold virtual currency as a capital asset.[144] The final digital asset regulations under §1012 do not explicitly preclude application to ordinary property.

4. Special Rules and Models for Tracing

The default rule for determining the basis and other tax characteristics of property for purposes of federal income taxation is specific identification. Basic provisions of the Code and regulations seem to reflect implicit and unspoken assumptions that the property in question can be differentiated from all other property; that the relevant tax history of the property is knowable and known; and that the relevant information will be used in determining the tax consequences of the transaction in which the property is involved. [145]

In many cases, this sort of special identification can be achieved without difficulty or uncertainty. Many situations, however, pose greater difficulties. Strict tracking may be prohibitively burdensome where the property is fungible (fluids, gases) or consists of a very large numbers of identical items.[146] Issues of identification can arise when the ownership of the property is separated from the party having custody or authority to execute transactions.[147] Finally, as discussed above, some digital assets unavoidably lose their tax identity as a result of ordinary transactions.

To address these difficulties, special provisions have been developed for particular classes of property. While none of these are expressly or clearly applicable to cryptocurrencies or other digital assets, they provide models and possible analogies in the absence of further guidance from regulations or judicial decisions.

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[138] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-40.

[139] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-39, 41.

[140] *See* VIII.F., below.

[141] *See* Preamble to T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).

[142] *See* Reg. §1.1012-1(j). See also V.B.4 and VIII.F., below, for further discussion of the §1012 final regulations.

[143] Rev. Proc. 2024-28.

[144] *See* IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions* ("Note: Except as otherwise noted, these FAQs apply only to taxpayers who hold virtual currency as a capital asset."); Rev. Proc. 2024-28, §4.02.

[145] See, for example, §1001 and Reg. §1.1001-1(a).

[146] For example, see Reg. §1.471-2(d) (FIFO assumption may be used for goods "which have been so intermingled that they cannot be identified with specific invoices"); Rev. Rul. 70-541 (grains of different grades intermingled); Schneider, Federal Income Taxation of Inventories, 2.02[1].

[147] For example, see Reg. §1.1012-1 (provisions prescribing how a taxpayer maintains identification of fungible shares held by a broker or agent).

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a. Section 1012 Regulations

The regulations under §1012 provides methods, including safe harbors, for purposes of adequately identifying stocks and bonds.[148] The general principles of these regulations are also reflected in the regulations under §1012 for digital assets.[149] The regulations do not, however, provide safe harbor methods for other fungible property such as commodities or futures; nevertheless, it is likely that a taxpayer may still make an adequate identification for other types of fungible property including commodity positions.[150] While the methods provided for stock sales can be followed for this purpose, an adequate identification is not limited to the methods or evidentiary requirements provided in the regulations.[151]

Third-party confirmations of a taxpayer's specification are often not provided in the case of digital asset transactions; however, confirmation of the taxpayer's instructions is not required unless the taxpayer seeks to satisfy the safe harbor requirements of the regulations.[152] Regardless, a taxpayer must still obtain evidence verifying that an identification was made before or at the time of the sale, transfer, delivery, or distribution.[153] And, while the regulations do permit an adequate identification to be made before the settlement date of a stock trade,[154] this leeway has little practical use in the case of digital asset transactions, which can be expected to be added to the blockchain within approximately 10 minutes (in the case of bitcoin) and even faster with other blockchains, and are commonly understood to be irreversible.[155]

Because BTC seems likely to be treated as a commodity for federal income tax purposes,[156] the identification conventions applicable to commodity positions are relevant. In *Perlin v. Commissioner*,[157] the Tax Court held that a taxpayer could specify commodity futures positions to close where the instructions were consistent with CFTC regulations. The CFTC regulations cited allowed FIFO if no specific identification was made by the taxpayer.[158] The court noted that the regulations permitted the identification of lots sold, in the case of stock, and provided:

> A useful analogy is provided in the regulations concerning the treatment of stock sales. Where an investor is selling stock from a portfolio held by his broker, he may identify the specific shares to be sold, or he may assume that the shares are disposed of on a FIFO basis. (citation omitted) … . Though it appears that use of the special instructions created large tax losses, we know of no authority which suggests that a seller of property must sell property that would produce a gain before selling property that would produce a loss.[159]

b. Account-by-Account Rules of §1012(c)

The account-by-account rules of §1012(c) apply to "specified securities." Section 6045(g)(3)(B)(iv) provides that a specified security now includes any "digital asset," which is defined by §6045(g)(3)(D) as "any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology as specified by the Secretary."

c. Specific Identification Rules for Digital Assets Held Directly by Taxpayers

The rules in Reg. §1.1012-1(j)(1) – Reg. §1.1012-1(j)(2) address the means by which a taxpayer selling or disposing of digital assets which they hold directly (*i.e.,* assets held in an unhosted wallet) may specifically identify units of assets used in the transaction; if no specific identification is made, basis is recovered under the default assumption described in Reg. §1.1012-1(j)(1). A specific identification is adequately made if, no later than the date and time of the disposition, the taxpayer identifies on its books and records the particular unit to be sold, disposed of, or transferred. A specific identification can only be made if adequate records are maintained for the unit of a specific digital asset to establish that a unit sold, disposed of, or transferred is removed from the wallet.[160]

Commentary: The Treasury Department and the IRS acknowledged comments criticizing the requirement that an adequate identification be made *no later than* the date and time of the transaction. One comment advised that the rule would provide less flexibility than currently allowed for making an adequate identification of which shares of stock a taxpayer sold and would pose as a "trap for the unwary" for some taxpayers. The Treasury Department and IRS responded that in their view the rules for specific identification of securities and digital assets are consistent in that both require a specific identification to be made before the relevant asset is delivered for settlement. Whereas the settlement period for securities is one or more days after a trade, the settlement period for digital assets is typically within minutes.[161]

The digital asset regulations under §1012 indicate that "wallet" or "account" segregation must be respected in application of these basis recovery rules.[162] A wallet is defined by Reg. §1.6045-1(a)(25)(i) as "a means of storing, electronically or otherwise, a user's private keys to digital assets held by or for the user."[163]

[148] Reg. §1.1012-1(c). Unless otherwise noted, these regulations apply to both stocks and bonds. Reg. §1.1012-1(c)(6) (providing that Reg. §1.1012-1(c)(1) to Reg. §1.1012-1(c)(5), Reg. §1.1012-1(c)(8), and Reg. §1.1012-1(c)(9) apply to bonds).

[149] Reg. §1.1012-1, T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024). See VIII., below, for further discussion of the §1012 regulations.

[150] *Perlin v. Commissioner*, 86 T.C. 388 (1986).

[151] *Hall v. Commissioner*, 92 T.C. 1027, 1036 (1989) ("[*Helvering v. Rankin*, 295 U.S. 123 (1935)] is typical of the long-held judicial approach to adequate identification, i.e., that adequate identification is feasible in a wide variety of circumstances.").

[152] *Concord Instruments Corp. v. Commissioner*, T.C. Memo 1994-248 (concluding that Reg. §1.1012-1(c)(3) provides a safe harbor, and not the exclusive means to adequately identify stock to avoid FIFO).

[153] Reg. §1.1012-1(c)(8).

[154] Reg. §1.1012-1(c)(8).

[155] *Irreversible Transactions*, Bitcoin Wiki (Apr. 8, 2022).

[156] See IV.A.5., above.

[157] 86 T.C. 388 (1986).

[158] 17 C.F.R. §1.46(b) (1980).

[159] *Perlin*, 86 T.C. at 430.

[160] Reg. §1.1012-1(j)(2).

[161] Preamble to T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).

[162] Preamble to T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024); Reg. §1.1012-1(j).

[163] A hosted wallet is defined by Reg. §1.6045-1(a)(25)(ii) as "a custodial service that electronically stores the private keys to digital assets held on behalf

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Commentary: The definition of "wallet" under the regulations is not limited to a single set of private keys, rather the means of storing the user's private keys. This could lead to different interpretations of which assets could be included in the grouping of a wallet as defined in Reg. §1.6045-1(a)(25). For example, a single computer could store multiple private keys. It is unclear whether the digital assets controlled by multiple private keys on a single computer could be viewed as a single "wallet" for purposes of Reg. §1.6045-1(a)(25)(i).

Commentary: Not all unhosted wallet software provides users the ability to generate reports of transaction history associated with multiple addresses to which the wallet provides access. The underlying blockchain would retain transaction history associated with each address, but no indication as to which addresses are associated with a specific taxpayer's wallet. Taxpayers should take into consideration the transaction data available to them in determining the appropriate level of segregation to apply basis recovery rules for relevant tax reporting.

Commentary: Taxpayers using digital asset tax basis tracking software should consider whether the software enables them to adequately segregate wallets and recover basis in alignment with the §1012 regulations. Some software may enable a taxpayer to select specific tax lots to be used in a prospective transaction; however, the taxpayer must ensure they move the digital assets from the same wallet that held the specifically identified tax lots.

d. Specific Identification Rules for Digital Assets Held in the Custody of a Broker

The rules in Reg. §1.1012-1(j)(3)(i) – Reg. §1.1012-1(j)(3)(ii) address the means by which a taxpayer selling or disposing of digital assets held in the custody of a broker may specifically identify units of assets used in the transaction, and the default basis recovery rules if no specific identification is made. An adequate identification is made if, no later than the date and time of the disposition, the taxpayer specifies to the broker the particular units of the digital asset to be sold, disposed of, or transferred by reference to any identifier, such as purchase date and time or purchase price, that the broker designates as sufficiently specific to identify the units disposed of.[164] The taxpayer is responsible for maintaining records to substantiate the identification. These regulations indicate that broker account segregation must be respected in determining the cost basis of assets that were sold or disposed.

Reg. §1.1012-1(j)(4) provides that a method of specifically identifying the units of a digital asset sold, disposed of, or transferred (e.g., by the earliest acquired, the latest acquired, or the highest basis) is not a method of accounting. Therefore, a change in the method of specifically identifying the digital asset sold, disposed of, or transferred (e.g., from the earliest acquired to the latest acquired) is not a change in method of accounting to which §446 and §481 apply.

e. Inventories and Property Held for Sale in the Ordinary Course

Reg. §1.471-1(a) provides that inventories "are necessary in every case in which the production, purchase, or sale of merchandise is an income-producing factor." The most common form of inventories has been tangible personal property, although regulations governing inventories of securities dealers have been on the books for many years. The regulations, for example, provide that merchandise includes all finished or partly finished goods and, in the case of raw materials and supplies, only those which have been acquired for sale or which will physically become a part of merchandise intended for sale.[165] The Code and regulations authorize a wide range of methods and sub-methods for inventory accounting, including cost flow assumptions such as specific identification, first-in, first-out (FIFO), and last-in, first-out (LIFO), as well as alternatives for valuation such as cost or cost-or-market, whichever is lower. Broadly speaking, these methods enable taxpayers to make a reasonably accurate calculation of cost of goods sold where large numbers of transactions and items are involved. The need for burdensome tracing of merchandise can be minimized or eliminated by the ability to use assumptions in determining the flow of property and dollar-value techniques in calculating inventories. Such methods could significantly ease the burden of accounting for cryptocurrency transactions.

Section 1221(a)(1), which includes inventory property from the definition of capital asset, also excludes "property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business." The most common example of such property is real estate, which has traditionally been excluded from inventory treatment even in situations where the taxpayer holds real property in a way similar to conventional inventories.

Commentary: The purchase and sale of cryptocurrencies and other digital assets could arguably be "an income-producing factor" under Reg. §1.471-1(a), which would require the use of inventory accounting. Thus far, however, no authorities have addressed the use of inventory methods for cryptocurrencies. Alternately, cryptocurrency could be "property held for sale in the ordinary course of business" under §1221(a)(1) in the hands of some taxpayers; the use of inventory methods is not expressly allowed in such situations but would arguably be a reasonable position for such taxpayers to take given the similarity of their situation to fact patterns requiring the use of inventories.

C. Exchange of Digital Assets for Goods or Services

As is the case with other property exchanges,[166] a taxpayer who receives digital assets as a form of payment for goods or services generally must, in computing gross income, include the fair market value of the digital assets, measured in U.S. dollars, as of the date that the digital asset was received[167] or at the

of others." An unhosted wallet is defined by Reg. §1.6045-1(a)(25)(iii) as "non-custodial means of storing, electronically or otherwise, a user's private keys to digital assets held by or for the user," which can either be a hot wallet (software connected to internet) or cold wallet (hardware disconnected from internet). A digital asset is considered to be held in a wallet or account if the wallet, whether hosted or unhosted, or account stores the private keys necessary to transfer control of the digital asset. Reg. §1.6045-1(a)(25)(iv).

[164] Reg. §1.1012-1(j)(3)(ii).

[165] Reg. §1.471-1(a).

[166] *See* Rev. Rul. 79-24, Rev. Rul. 83-163.

[167] *See* Reg. §1.1001-7(b). *See also* Notice 2014-21, §4, Q&A-3; IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*, Q&A-8, 11. Although the Internal Revenue Manual is not binding authority, the IRS provided interim guidance on digital assets in the automated under-reporter

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time that the taxpayer has a fixed right to receive.[168] The basis of the digital assets that a taxpayer receives as payment for goods or services is the fair market value of the virtual currency in U.S. dollars as of the date and time it was recorded as income.

A taxpayer who exchanges digital assets for other property or services may have gain or loss on the transaction if the value of the property received is different than the basis of the digital asset in the hands of the purchaser.[169] Notice 2014-21 states that:

> The character of the gain or loss generally depends on whether the virtual currency is a capital asset in the hands of the taxpayer. A taxpayer generally realizes capital gain or loss on the sale or exchange of virtual currency that is a capital asset in the hands of the taxpayer. For example, stocks, bonds, and other investment property are generally capital assets. A taxpayer generally realizes ordinary gain or loss on the sale or exchange of virtual currency that is not a capital asset in the hands of the taxpayer. Inventory and other property held mainly for sale to customers in a trade or business are examples of property that is not a capital asset.[170]

Thus, a dealer or market maker in digital assets may realize ordinary gain or loss on the sale or exchange of digital assets if it is appropriately characterized as inventory. Similarly, a taxpayer who uses digital assets in their normal course of business to facilitate transactions, use as gas fees, or operate their platform should analyze §1221 in the application to their business to determine the appropriate character of any resulting gain or loss.

The fair market value used to determine income or gain, or loss associated with the use of digital assets may be difficult to measure given the constant changes in value against the U.S. dollar. Those taxpayers who effect transactions using a centralized or decentralized digital asset exchange may use the value as recorded on that exchange.[171] If the transaction was executed without the use of an exchange, it may be acceptable to utilize the values as published on a blockchain explorer or other means of evidence to support the fair market value.[172]

As is sometimes the case in other barter transactions, both sides of the transaction may utilize property, goods, and services with subjective or fluctuating values. This is particularly relevant in transactions involving the use of early stage or relatively illiquid digital assets to procure services. In this case, it is appropriate to use the more readily ascertainable fair market value and secure contemporaneous documentation to support the values used to record income, expense, gain or loss in the transaction.

D. Digital Asset Transaction Costs

Regulations under §1001and §1012 require transactions costs allocable to the disposition of digital assets to reduce the amount realized on the disposition[173] and transaction costs allocable to an acquisition of digital assets to increase cost basis.[174] To determine whether costs are allocable to a disposition or an acquisition of digital assets, the regulations provide that the full amount of transaction costs paid in connection with a sale or other disposition of digital assets is allocated to the disposition even in the case of an exchange of digital assets for other digital assets that differ materially in kind or extent.[175]

In the case of digital assets acquired other than in an exchange of digital assets for digital assets, the digital asset transaction costs paid in connection with the acquisition of digital assets are allocable to the digital assets received.[176]

Commentary: The proposed regulations under §1001 and §1012 had included rules splitting the digital asset transaction costs on an exchange of digital assets for digital assets between the basis of the acquired digital assets and the amount realized on the disposed of digital assets. The final regulations under §1001 and §1012 remove the split digital asset transaction cost rule. The Treasury Department and the IRS acknowledged many comments raising several concerns with the split digital asset transaction cost rule and concluded that it would be overly burdensome for taxpayers and brokers to administer.[177]

The final regulations also add special rules for allocating digital asset transaction costs on an exchange of digital assets in which units of the digital asset received are withheld to pay the transaction costs of the exchange. The final regulations provide that the total digital asset transaction costs paid by the taxpayer to effect both the original exchange and any disposition of the withheld digital assets are allocable exclusively to the disposition of digital assets in the original exchange.[178]

E. Section 475 — Dealers and Traders

1. Brief Overview of §475

Section 475 sets forth a mandatory mark-to-market regime for dealers in securities under §475(a). Section 475 also includes an elective mark-to-market regime for dealers in commodities and traders in securities and commodities under §475(e) and §475(f).[179] Under the mark-to-market rules in §475, the taxpayer generally recognizes ordinary gain or loss with respect to its assets that are subject to the mark (i.e., securities and/or commodities) based on their fair market value as of the end of the year.

If a dealer in commodities makes a mark-to-market election under §475(e)(1), the §475 rules that apply to dealers in

program, which includes instructions for reporting the fair market value of virtual currency in certain transactions. *See* IRM 4.19.3 (10-02-24), SB-SE-04-0319-0296 (March 7, 2019) (interim guidance on IRM 4.19.3; automated under-reporter program).

[168] §451.

[169] Notice 2014-21, §4, Q&A-6; IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-13, 14, 15, 16.

[170] Notice 2014-21, §4, Q&A-7.

[171] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-26.

[172] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-27, 28.

[173] Reg. §1.1001-7(b)(1)(iii)(A).

[174] Reg. §1.1012-1(h)(1)(i).

[175] Reg. §1.1001-7(b)(1)(iii)(C), §1.1012-1(h)(2)(ii)(B).

[176] Reg. §1.1012-1(h)(1)(iii).

[177] *See* Preamble to T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).

[178] Reg. §1.1001-7(b)(2)(ii)(B).

[179] See 543 T.M., *The Mark-to-Market Rules of §475* for further discussion.

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securities are generally applicable.[180] If a trader in commodities makes a mark-to-market election under §475(f)(2), the §475 rules that apply to traders in securities are generally applicable.[181] Once a taxpayer makes a mark-to-market election under §475(e)(1) or §475(f)(2), it must mark-to-market all commodities (as defined in §475(e)(2)) that have not been specifically identified as held for investment or otherwise exempt. For an additional discussion of the operative rules of §475, see 543 T.M., *The Mark-to-Market Rules of §475.*

Many dealers and traders in digital assets may find it beneficial to mark-to-market their digital asset positions for U.S. federal income tax purposes. Basis tracking with digital assets can be challenging (as set forth in V.B., above), especially for taxpayers with high-frequency trading and/or taxpayers that frequently borrow digital assets and sell them short, and taxpayers may find that mark-to-market is the most administrable approach for clearly reflecting income.[182] Applying the mark-to-market method may also mitigate the impact of the straddle rules under §1092 through the recognition of any built-in gain in the digital assets that are subject to mark-to-market treatment.[183]

To determine whether a taxpayer is eligible to make a mark-to-market election under §475, it is necessary to first establish whether the taxpayer is a dealer in commodities or a trader in securities or commodities. As briefly discussed above, such determination is factually based, and it is necessary to consider both: (i) the activities of the taxpayer; and (ii) the nature of the relevant assets.

2. Dealers and Traders

Section 475(c)(1) defines a "dealer in securities" as a taxpayer that:

> A. regularly purchases securities from or sells securities to customers in the ordinary course of a trade or business; or
>
> B. regularly offers to enter into, assume, offset, assign or otherwise terminate positions in securities with customers in the ordinary course of a trade or business.

In general, the IRS and the courts look at the following factors to determine whether a taxpayer is a dealer: (i) the presence of customers; (ii) the type of compensation; (iii) its unique role as a provider of supply; and (iv) other factors.[184] The presence of customers is the most important factor that the IRS and the courts rely on to distinguish dealers from others such as traders or investors. A dealer is compensated for its services of bringing together buyers and sellers.[185] On the other hand, compensation resulting entirely from increases in the market prices, rather than from acting as a middleman, indicates that the taxpayer is not a dealer.[186] Other factors which indicate dealer status include representations and statements as a dealer to the public, including customers, investors, and government agencies.[187]

Courts have emphasized the following three considerations when determining if a taxpayer is a trader (rather than, for example, an investor): (i) the taxpayer's intent; (ii) the nature of the income that is derived from the activity; and (iii) whether the taxpayer's trading activities are substantial.[188] With respect to the first two considerations, investors generally hold assets to capture capital appreciation and derive income from dividends and interest (in the case of stock and debt, respectively), while traders buy and sell assets "with reasonable frequency in an endeavor to catch the swings in the daily market movements and profit thereby on a short-term basis."[189] With respect to the last consideration, regarding whether the trading activity is substantial, courts look to the frequency, extent, and regularity of the trading activities.[190]

3. Digital Assets as Securities or Commodities

When determining if dealers and traders in digital assets are eligible to make a mark-to-market election under §475, it is necessary to determine if digital assets are securities or commodities for this purpose. The definition of security in §475(c)(2) includes stock, certain partnership interests, debt, certain notional principal contracts (NPCs), and derivatives referencing these interests.[191] As a result, convertible virtual currencies, such as BTC, generally are not covered by the definition of security in §475(c)(2).[192]

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[180] §475(e)(1). Proposed regulations provide that the rules and administrative interpretations under §475 for dealers in securities apply to commodities dealers that elect to mark-to-market. Prop. Reg. §1.475(e)-1(b).

[181] §475(f)(2). Proposed regulations provide that the proposed rules that apply to traders in securities that elect to mark-to-market apply in the same manner to traders in commodities that elect to mark-to-market. Prop. Reg. §1.475(f)-2(e).

[182] See V.G., below, for a discussion of short sales of digital assets.

[183] See V.F., below, for a discussion of the straddle rules.

[184] TAM 9345003. See also 543 T.M., *The Mark-to-Market Rules of Section 475*, for further discussion.

[185] *Kemon v. Commissioner*, 16 T.C. 1026, 1032–33 (1951).

[186] *Currie v. Commissioner*, 53 T.C. 185, 199–200 (1969).

[187] CCA 200817035.

[188] *See Moller v. United States*, 721 F.2d 810, 813 (Fed. Cir. 1983) (stating that "relevant considerations are the taxpayer's investment intent, the nature of the income to be derived from the activity, and the frequency, extent, and regularity of the taxpayer's securities transactions"); *see also Holsinger v. Commissioner*, T.C. Memo 2008-191 (explaining that a "taxpayer's activities constitute a trade or business where both of the following requirements are met: (1) The taxpayer's trading is substantial, and (2) the taxpayer seeks to catch the swings in the daily market movements and to profit from these short-term changes rather than to profit from the long-term holding of investments").

[189] *Liang v. Commissioner*, 23 T.C. 1040, 1043 (1955); *see also Estate of Yaeger v. Commissioner*, 889 F.2d 29, 33 (2d Cir. 1989) (stating that "the two fundamental criteria that distinguish traders from investors is the length of the holding period and the source of the profit"); *Purvis v. Commissioner*, 530 F.2d 1332, 1334 (9th Cir. 1976), aff'g T.C. Memo 1974-164 (noting that the Tax Court "properly examined the frequency, extent, and regularity of petitioner's securities transactions as well as his intent to derive profit from relatively short-term turnovers").

[190] *See, e.g., Endicott v. Commissioner*, T.C. Memo 2013-199 (concluding that 204 trades during the 2006 tax year and 303 trades during the 2007 tax year were not substantial, while 1,543 trades during the 2008 tax year were substantial); *Kay v. Commissioner*, T.C. Memo 2011-159 (explaining that a taxpayer was not a trader for purposes of the §475(f) election when he executed 313 trades in 2000, 171 trades in 2001 and 84 trades in 2002, and the taxpayer held the majority of the stocks for over 30 days).

[191] Any position which is not otherwise a security but is a hedge with respect to a security and timely identified, is also considered a security for these purposes. §475(c)(2)(F).

[192] In contrast, certain types of stablecoin may, however, be considered securities for purposes of §475 if they are indebtedness of the issuer for U.S. federal income tax purposes.

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As set forth in IV.A., above, under a number of approaches, it may be reasonable to view digital assets as commodities where such term is used in the tax law without further clarification. In §475(e)(2), the term "commodity" is not actually defined, but is modified by the term "actively traded" for purposes of §1092.[193] Specifically, §475(e)(2) provides that a "commodity" is:

> A. any commodity which is actively traded within the meaning of §1092(d)(1);
>
> B. any NPC with respect to any actively traded commodity; and
>
> C. any evidence of an interest in, or a derivative instrument in, any actively traded commodity or NPC on an actively traded commodity, including any option, forward contract, futures contract, short position, and any similar instrument in such a commodity.

Also, under §475(e)(2)(D), any position, such as a security or other property, that hedges a "commodity" may be treated as a commodity if it is properly identified.

While the definition in §475(e)(2)(A) is referenced by several other Code provisions, none of those provisions address the meaning of the term "commodity."[194] Given the lack of a clear definition in the Code, it may be appropriate to look to the ordinary and common meaning of the term. See IV.A.5., above, for a discussion of the meaning of commodity.

BTC and ETH, which have futures that are traded on certain U.S. commodity exchanges, appear likely to be commodities for purposes of §475. In this regard, BTC and ETH are likely to be considered commodities generally for U.S. federal income tax purposes and actively traded personal property within the meaning of §1092(d)(1).[195] Other fungible digital assets may be considered commodities for such purpose as well. In addition, derivatives — which would include NPCs, futures, forwards, options, and short positions — on digital assets that are considered commodities for purposes of §475 would also be treated as commodities for purposes of §475.[196] Further, any position which hedges a digital asset treated as a commodity for purposes of §475 may be treated as a commodity for purposes of §475(e)(2) if it is properly identified.[197]

The Green Book for the White House's fiscal year 2023 budget blueprint includes a provision amending the mark-to-market rules under §475 to include digital assets as another specified category of assets that may be mark-to-market by a dealer or trader in such assets. For a further discussion of the proposal, see the Worksheets, below.

F. Hedging

Generally, a "hedging transaction" means any transaction entered into by the taxpayer in the normal course of its trade or business primarily to manage risk of: (i) price changes or currency fluctuations with respect to ordinary property which is held (or to be held) by the taxpayer; (ii) interest rate or price changes or currency fluctuations with respect to borrowings made (or to be made) or ordinary obligations incurred (or to be incurred) by the taxpayer; or (iii) other risks as provided in regulations.[198] Properly identified hedging transactions generally are not considered capital assets, and taxpayers may incur a character whipsaw to the extent hedging transactions are not properly identified (i.e., the recognition of ordinary income and a capital loss).[199] Taxpayers must account for gains and losses on hedging transactions in a manner that reasonably matches the timing of gain and loss with respect to the item(s) hedged.[200]

In the context of transactions in digital assets, identifying a transaction as a hedging transaction to avoid character mismatches may be desirable and available in a number of situations for taxpayers that hedge price risk. For example, if a taxpayer is a dealer in digital assets and thus holds digital assets as ordinary property under §1221(a)(1) or if a taxpayer is considered a commodities derivatives dealer under §1221(a)(6), a hedge of price risk with respect to the digital assets or derivatives may result in character whipsaws if such hedging transactions are not properly identified as such. Further, it is worth noting that while the purchase or sale of a debt instrument, an equity security or an annuity contract is not a hedging transaction even if such transaction manages risk, many digital assets would likely not be covered by such rule.[201]

G. Section 1092 — Straddles

1. In General

As a general matter, Congress enacted the straddle rules to prevent the deferral of income and the conversion of ordinary income and short-term capital gain into long-term capital gain.[202] Section 1092(c)(1) broadly defines a "straddle" to mean "*offsetting positions with respect to personal property*."[203] A "position," in this respect, "means an interest (including a futures or forward contract or option) in personal property."[204] The term "*personal property*" is specifically defined to mean

[193] The Taxpayer Relief Act of 1997 added the §475 provisions allowing securities traders and commodities traders and dealers to elect to apply the mark-to-market accounting rules. The House Committee Report had provided that a commodity for purposes of §475(e)(2)(A) would include only commodities of a kind customarily dealt in on an organized commodities exchange; however, that limitation was removed when the bill went to conference. The Conference Agreement expanded the definition of a commodity for purposes of the provision to include any commodity that is actively traded within the meaning of §1092(d)(1). *See* H.R. Conf. Rep. No. 105-220, at 516 (1997), reprinted in 1997-4 C.B. 1457, 1986. *See also* Joint Committee on Taxation, The General Explanation of the Tax Legislation Enacted in 1997 (Comm. Print 1997), reprinted in 1997-3 C.B. 89, 291.

[194] *See, e.g.,* §199A(d)(2)(B), §1061(c)(3), §1411(c)(2)(B), §1471(d)(5)(C), §4975(f)(11)(D).

[195] See V.F., below, for a discussion of the actively traded standard under §1092(d)(1).

[196] §475(e)(2)(B) and §475(e)(2)(C).

[197] §475(e)(2)(D).

[198] §1221(b)(2)(A), Reg. §1.1221-2.

[199] §1221(a)(7).

[200] Reg. §1.446-4(b). Further, transactions that are properly identified as hedging transactions are not subject to the loss deferral provisions of the straddle rules of §1092, as discussed in V.F., below.

[201] Reg. §1.1221-2(d)(5). Again, it should be noted that it is necessary to analyze the particular digital asset in question to determine if it may be treated as a debt instrument or equity security for this purpose.

[202] *See* Joint Committee on Taxation, General Explanation of the Economic Recovery Tax Act of 1981, at 283 (Dec. 29, 1981).

[203] §1092(c)(1) (emphasis added).

[204] §1092(d)(2).

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any personal property of a type that is "actively traded."[205] Final regulations provide that actively traded personal property includes any personal property for which there is an "established financial market."[206]

In general, a "taxpayer holds *offsetting positions* if there is a substantial diminution of the taxpayer's risk of loss from holding any position with respect to personal property by reason of his holding one or more other positions with respect to personal property (whether or not of the same kind)."[207] If there is a significant negative correlation in the value of positions such that holding one diminishes the risk of holding the other — even if the underlying asset is different — they can constitute offsetting positions.[208] In this regard, §1092(d)(3) provides special rules for stock, which (among other requirements) subjects stock positions to the straddle rules if "at least one of the positions offsetting such stock is a position with respect to such stock *or substantially similar or related property*."[209] No such guidance exists with respect to digital assets. Therefore, a taxpayer holding positions in multiple *different* digital assets should still carefully consider whether those positions result in a substantial diminution of its risk of loss (i.e., are offsetting).

While a comprehensive discussion of the tax consequences of the straddle rules is beyond the scope of this Portfolio, the basic consequences of a straddle include:[210]

(i) A deferral of realized losses on one position up to unrecognized gain in an offsetting position (the loss deferral rule).[211]

(ii) Reset and suspension of the holding period of a position while it remains part of a straddle.

(iii) Capitalization of interest and other expenses allocable to holding the positions in the straddle.[212]

It is worth noting certain specific rules that are often impactful with respect to investors, traders and dealers that transact in digital assets. First, §1092(a)(2) establishes an "identified straddle" regime that may mitigate several issues that arise with unbalanced straddles and multiple positions that may potentially be part of a straddle. If the taxpayer incurs a loss on a position that is part of the identified straddle, such loss is not subject to the usual loss deferral rules of §1092(a)(1)(A) and will, instead, be capitalized into the taxpayer's basis in the offsetting positions that are part of the identified straddle.[213]

Second, taxpayers should also be aware of special rules in §1092(d)(8) which provide that if a position is part of a straddle is settled by delivering property, the position is treated as settled at fair market value and the taxpayer is treated as having sold the property delivered.

Third, because §1256 contracts exist with respect to certain digital assets (see V.H., below), taxpayers that hold offsetting positions in digital assets must also be aware of the "mixed straddle" rules that apply when at least one (but not all) of the positions in the straddle is a §1256 contract.[214] Mixed straddles present particular challenges for taxpayers because: (i) the rules of §1256 require mark-to-market at least one of the positions in the straddle annually; and (ii) rules to determine the holding period are different for the §1256 positions and other straddle positions.[215]

Given the ever-evolving marketplace for digital assets, it is necessary for taxpayers to regularly determine whether their positions are potentially subject to the straddle rules and the impact of such rules.

Note: The IRS issued proposed rules under §6011 that would include digital assets as a type of asset that may be the subject of a so-called "basket contract" transaction subject to disclosure as a listed transaction and penalties for material advisers and participants.[216]

2. *"Actively Traded" Digital Assets*

For digital assets, the threshold question to determine if the straddle rules apply is whether the particular digital asset is "actively traded." The term "actively traded personal property" is defined for purposes of §1092(d)(1) by the regulations as including "any personal property for which there is an established financial market."[217] Reg. §1.1092(d)-1(b)(1) generally defines "established financial market" quite broadly to encompass various kinds of markets ranging from registered national securities exchanges, domestic boards of trade designated as a contract market by the Commodities Futures Trading Commission (CFTC), to an "interdealer market" (discussed below).

For example, the CME Group, Inc. (CME) and Intercontinental Exchange, Inc. (ICE) are domestic boards of trade designated as contract markets by the CFTC.[218] Bitcoin futures contracts and options trade on the CME and ICE.[219] Ether futures contracts and options also trade on the CME. Thus, BTC and ETH are likely to be considered "actively traded personal prop-

[205] §1092(d)(1).)

[206] Reg. §1.1092(d)-1(a).

[207] §1092(c)(2) (emphasis added). Section 1092(c)(3) sets forth certain elements where, if satisfied, two or more positions are presumed to be offsetting, subject to rebuttal.

[208] S. Rep. No. 97-144, at 150 (1981). See 187 T.M., *Taxation of Non-Equity Derivatives* discussing the scope of straddle rules and the offsetting positions.

[209] §1092(d)(3) (emphasis added).

[210] For a comprehensive discussion of the straddle rules, see 187 T.M., *Taxation of Non-Equity Derivatives.*

[211] §1092(a)(1). *See* Temp. Reg. §1.1092(b)-1T(a)(2). Section 1092(b)(1) also provides Treasury broad authority to prescribe regulations extending principles relating to wash sales from §1091 to losses on straddle positions. *See* Temp. Reg. §1.1092(b)-1T(a)(1) (modified wash sale rules). Taxpayers must consider the loss deferral rule even if the modified wash sale rules do not apply; however, the loss deferral rule is more limited because §1092(a)(1) defers losses only to the extent of the offsetting positions' unrecognized gain.

[212] *See* §263(g) (capitalization required for certain otherwise deductible expenses).

[213] §1092(a)(2)(A).

[214] *See* §1092(d)(5)(A), §1092(b)(2); Reg. §1.1092(b)-5T(e) (defining "mixed straddle"). See also V.H., below, for the application of §1256 to certain derivatives referencing digital assets.

[215] For a comprehensive discussion of these provisions, see 187 T.M., *Taxation of Non-Equity Derivatives.*

[216] See Prop. Reg. §1.6011-16, added by REG-102161-23 (89 Fed. Reg. 57,111 (July 12, 2024)), effective on the date final rules are published in the Federal Register. For further discussion of the basket contract listed transaction under the proposed rules, see 648 T.M., *Reportable Transactions.*

[217] Reg. §1.1092(d)-1(a).

[218] *See Industry Filings: Designated Contract Markets (DCM), CFTC.*

[219] *See Bitcoin: Futures and Options, CME Group, Product Spec: CoinDesk Bitcoin Futures*, Intercontinental Exchange.

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erty" for purposes of §1092(d)(1) and Reg. §1.1092(d)-1(b)(iii) by reason of these contracts and options.

Particular consideration, however, should be given to digital assets readily traded on other types of exchanges. The legislative history to the straddle rules states that "to be treated as actively traded, property need not be traded on an exchange or in a recognized market."[220] The regulations reflect the legislative history by specifying that an established financial market includes an "interdealer market" which is defined as being:

> characterized by a system of general circulation (including a computer listing disseminated to subscribing brokers, dealers, or traders) that provides a reasonable basis to determine fair market value by disseminating either recent price quotations (including rates, yields, or other pricing information) of one or more identified brokers, dealers, or traders or actual prices (including rates, yields, or other pricing information) of recent transactions. An interdealer market does not include a directory or listing of brokers, dealers, or traders for specific contracts (such as yellow sheets) that provides neither price quotations nor actual prices of recent transactions.[221]

Commentary: There are numerous retail exchanges, including centralized U.S. exchanges, on which digital assets, and derivatives referencing digital assets, are traded. For digital assets traded on these exchanges, further consideration will be necessary to determine whether they are "actively traded" within meaning of the §1092 straddle rules. These exchanges provide the actual prices and volume at which a digital asset has recently traded, and the prices for which it may be bought and sold.

Thus, the definition of "interdealer market" plausibly encompasses certain virtual currency markets and/or exchanges. Under such a reading, a digital asset traded thereon would be "actively traded" within the definition provided by the regulations, and the legislative history to §1092. However, some commentators have suggested it is not entirely clear whether a centralized convertible virtual currency exchange should qualify as an "interdealer market" and, therefore, some taxpayers may take the view that digital assets trading only on such exchanges are not "actively traded" within the meaning of the regulations under §1092.[222]

H. Short Sales

A short sale of property occurs when a taxpayer sells property that it has borrowed.[223] For federal income tax purposes, §1233(a) provides that gain or loss from the short sale of *property* will be treated as capital gain or loss to the extent that property used to close the short sale constitutes a capital asset in the hands of the taxpayer ("General Short Sale Rule").[224] No definition of property is stated for purposes of the General Short Sale Rule, and thus the term may be interpreted more broadly for this purpose and not limited to the types of property subject to the special short sale rules of §1233(b) and §1233(d) ("Special Short Sale Rules").[225]

Fungible digital assets seem likely to be treated as property subject to the General Short Sale Rule.[226] As such, the short sale of such digital assets held as capital assets would likely result in capital gain or loss.

1. Special Short Sale Rules

Section 1233(b) was intended to preclude recognition of long-term capital gain from the closing of a short sale unless the taxpayer has a long-term holding period prior to entering into the short sale.[227]

Generally, §1233(b) provides that if gain or loss from a short sale is considered as gain or loss from the sale or exchange of a capital asset under §1233(a), and if on the date of such short sale substantially identical property has been held by the taxpayer for not more than one year, or if substantially identical property is acquired by the taxpayer after such short sale and on or before the date of the closing thereof:

- any gain on the closing of such short sale shall be considered as a gain on the sale or exchange of a capital asset held for not more than one year (notwithstanding the period of time any property used to close such short sale has been held); and
- the holding period of such substantially identical property should be considered to begin on the date of the closing of the short sale, or on the date of a sale,

[220] *See* Joint Committee on Taxation, General Explanation of the Economic Recovery Tax Act of 1981, at 289 (Dec. 29, 1981). Furthermore, the preamble to the 1993 notional principal contract regulations stated: "[the IRS] believes that the term 'actively traded' under section 1092 was intended to cover financial instruments that are liquid or easily offset, even when those instruments are not traded on an exchange or in a recognized secondary market." T.D. 8491, 58 Fed. Reg. 53,125 (Oct. 14, 1993). The IRS qualified this view in the preamble (as applied to notional principal contracts) by stating: "… a notional principal contract is treated as actively traded only when contracts with the same (or substantially similar) indices are purchased, sold, or entered into on established financial markets, and clarifies the interaction of that rule with section 1234A." *Id.*

[221] Reg. §1.1092(d)-1(b)(2)(i).

[222] *See Report on Cryptocurrency and Other Fungible Digital Assets,* Report No. 1461, at 21–22, New York State Bar Association Tax Section (Apr. 18, 2022).

[223] *See Provost v. United States*, 269 U.S. 443, 450–51 (1926) ("a short sale is a contract for the sale of shares which the seller does not own or the certificates for which are not within his control so as to be available for delivery at the time when, under the rules of the Exchange, delivery must be made."); *Est. of Farr v. Commissioner*, 33 B.T.A. 557 (1935) ("One of the chief differences between a regular sale and a 'short sale' is that, in the former, the seller delivers his own shares to the purchaser and thus closes the transaction, while in the latter, he delivers 'borrowed' shares and the transaction is not closed so far as the seller is concerned until he delivers shares to repay the 'loan.'").

[224] §1233(a); Reg. §1.1233-1(a)(1); Rev. Rul. 72-478 (a short sale will not be considered consummated until the date that securities are delivered to close the short sale). *See also* Rev. Rul. 73-524; 188 T.M., *Taxation of Equity Derivatives.*

[225] §1233(e)(2)(A) (limiting the special short sale rules to stocks, securities, and commodity futures); *King v. Commissioner*, 87 T.C. 1213 (1986).

[226] Notice 2014-21, §4, Q&A-1. See II.B., above, for a summary of the Types of Digital Assets, including NFTs. Although NFTs may also be subject to this rule, they are not typically subject to lending transactions because of their unique nature.

[227] Senate Finance Comm. Report, Revenue Act of 1950, S. Rep, No. 2375, 81st Cong., 2d Sess. 44, reprinted in 1950 U.S. Code Cong. & Admin. News 3053, 3231.

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gift, or other disposition of such property, whichever date occurs first.

Section 1233(d) provides that if on the date of a short sale substantially identical property has been held by the taxpayer for more than one year, any loss on the closing of such short sale is considered as a loss on the sale or exchange of a capital asset held for more than one year (notwithstanding the period of time any property used to close such short sale has been held, and notwithstanding §1234).

2. Property Subject to the Special Short Sale Rules

Section 1233(e)(2)(A) limits the types of property subject to the special short sale rules by providing that: "… the term 'property' *includes only* stocks and securities (including stocks and securities dealt with on a 'when issued' basis), and commodity futures, which are capital assets in the hands of the taxpayer, but does not include any position to which §1092(b) applies … [.]" The Tax Court held that physical commodities were not included in the types of property subject to the special short sale rules.[228]

In *King*, the Tax Court rejected the IRS's argument that §1233 was applicable to physical commodities, and stated that, "while respondent's policy argument as to why actual commodities should be treated as being within the scope of §1233 may have some merit, we do not believe that the intended scope of the section encompasses actual commodities."[229] The court considered the term "property" for purposes of §1233(b) and §1233(d), as defined to include only those types specified by §1233(e)(2)(A), and commodities are not one of those types.

While the Special Short Sale Rules do not appear to apply to many digital assets that seem likely to be treated as commodities rather than as securities,[230] the Special Short Sale Rules may apply to transactions involving futures contracts on digital assets such as BTC or ETH.[231] And, as noted above, §1092 can apply similar principles to straddle transactions which include actual commodities.[232] In addition, a digital asset treated as a security for federal income tax purposes would be property for purposes of the Special Short Sale Rules.

I. Section 1256

Section 1256(a) provides, in general, that "section 1256 contracts" are marked to market at year-end and any gain or loss is treated as 60% long-term capital gain or loss and 40% short-term capital gain or loss, including upon a termination.[233] As most relevant for digital assets, the term "section 1256 contract" is defined to include, among other items, any "regulated futures contract" and any "nonequity option."[234]

For this purpose, a regulated futures contract is defined as a contract:

- with respect to which the amount required to be deposited and the amount which may be withdrawn depends on a system of marking to market, and
- which is traded on or subject to the rules of a qualified board or exchange.[235]

A "qualified board or exchange" or "QBOE" means: (i) a national securities exchange which is registered with the Securities and Exchange Commission; (ii) a domestic board of trade designated as a contract market by the Commodity Futures Trading Commission; or (iii) any other exchange, board of trade, or other market which the Secretary determines has rules adequate to carry out the purposes of this section.[236]

A "nonequity option" is defined as a listed option that is not an equity option.[237] A "listed option" means any option (other than a right to acquire stock from the issuer) that is traded on (or subject to the rules of a QBOE).[238] An "equity option" is defined as any option to buy or sell stock or the value of which is determined directly or indirectly by reference to any stock or any "narrow-based security index."[239]

Currently, §1256 contracts exist with respect to both BTC and ETH. More specifically, futures contracts subject to margin and mark-to-market requirements with respect to BTC trade on both the CME and ICE,[240] each of which is a QBOE.[241] Ether futures contracts subject to margin and mark-to-market requirements are also traded on the CME.[242]

We also note that BTC and ETH futures and derivatives and other cryptocurrencies, such as Sol, Atoms, or Lumens, trade on exchanges or boards of trade that are not QBOEs, such as exchanges that are located outside the United States or otherwise do not currently meet the definition of a QBOE.[243] Accordingly, contracts and options traded on these exchanges would not be treated as §1256 contracts.

J. Section 1259 — Constructive Sales

Under §1259(a), a "constructive sale" of an "appreciated financial position" generally results in the taxpayer recognizing gain as if such position were sold. Generally, a taxpayer is treated as having made a constructive sale of an appreciated financial position where the taxpayer enters certain transactions with respect to the same or substantially identical property, including a short sale, an offsetting swap or a futures or forward contract to deliver such property. For purposes of the construc-

[228] *King v. Commissioner*, 87 T.C. 1213 (1986).

[229] *King v. Commissioner*, 87 T.C. 1213, 1223 (1986).

[230] Bitcoins do not have a counterparty, or any attached rights, such as distribution or voting rights. The only right related to owning a bitcoin is the right to transfer it — that is, the right to send that specific UTXO (bitcoin) to another address.

[231] §1233(e)(2)(A) (property includes commodity futures).

[232] §1092(b)(1).

[233] For a more detailed discussion of §1256, including the interaction with other rules, such as the hedging rules and §988, see 187 T.M., *Taxation of Non-Equity Derivatives.*

[234] §1256(b)(1)(A), (C). Section 1256(b)(1) includes other types of §1256 contracts and has exceptions for certain contracts, including, but not limited to, commodity swaps. §1256(b)(2).

[235] §1256(g)(1).

[236] §1256(g)(7).

[237] §1256(g)(3).

[238] §1256(g)(5).

[239] §1256(g)(6). The term "narrow-based security index" is defined by reference to §3(a)(55) of the Securities and Exchange Act of 1934, as in effect on the date of enactment of §1256(g)(6).

[240] *See Bitcoin: Futures and Options*, CME Group; *Product Spec: CoinDesk Bitcoin Futures*, Intercontinental Exchange.

[241] *See Industry Filings: Designated Contract Markets (DCM),* CFTC.

[242] *See Ether: Futures and Options*, CME Group.

[243] *See, e.g., Futures Products*, Crypto Facilities (Crypto Facilities is authorized and regulated by the UK Financial Conduct Authority (FRN 757895)).

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tive sale rules, an "appreciated financial position" is any interest (including a futures or forward contract, short sale or option) with respect to any stock, debt or partnership interest, subject to certain exceptions, if there would be gain if the position was sold at fair market value. Under current law, the constructive sale rules of §1259 generally do not apply to transactions involving digital assets that are convertible virtual currencies because such assets generally would not be considered stock, debt instruments or partnership interests.[244]

K. Section 1091 — Wash Sales

Under the wash sale rules, a loss that would otherwise be recognized on the disposition of stock or a security (including options on stock or securities) generally is disallowed if a substantially identical stock or security is acquired (or a contract to acquire such security is entered into) during the 61-day wash sale period.[245] Under current law, the wash sale rules generally do not apply to transactions involving digital assets that are convertible virtual currencies.[246] In this regard, wash sale rules apply to a narrower set of assets — namely the wash sale rules apply only to transactions in stock and securities, including contracts and options to acquire stock or securities. While the wash sale rules do not provide a definition of stock or securities, such terms would generally not include convertible virtual currencies. As noted throughout this Portfolio, however, it is necessary to analyze the specific digital asset in question to determine if it may be a stock or security for purposes of §1091.

[244] H.R. 5376, Build Back Better Act (Dec. 11, 2021) (Senate Finance Committee Amendment Version); §128149 (Constructive Sales).

[245] §1091.

[246] H.R. 5376, Build Back Better Act (Dec. 11, 2021) (Senate Finance Committee Amendment Version); §128151 (Modification of Wash Sale Rules).

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VI. Selected Issues for Investment Entities

A. Partnerships Owning Digital Assets

1. Overview

Many investors in cryptocurrency use entities classified as partnerships to make investments and conduct business activities together. At their core, the provisions of the Code governing partnerships — found in subchapter K — are intended to permit taxpayers to conduct joint business activities through a flexible economic arrangement without incurring an entity-level tax.[247] While subchapter K has been a part of the tax law for almost 70 years, there are many unanswered questions about how its rules apply to digital assets. As in other areas of tax law, the application of the rules will depend on the type of digital asset or activity, and how it is classified generally for federal income tax purposes.

For example, investors in digital assets may form a partnership to undertake traditional investing activities — such as buying and selling to realize appreciation or holding for long-term appreciation — related to digital assets. Investors may form these investment-type partnerships by contributing cash, the digital assets themselves, or a combination thereof. These partnerships may report novel types of income — such as staking rewards related to the tokens owned — or acquire digital assets in novel transactions (e.g., a hard fork of a cryptocurrency). Partnerships also may be used to facilitate the development of new protocols and corresponding digital assets or tokens. Any of these partnerships may later distribute cash or tokens.

Thus, investors must apply the subchapter K rules governing contributions to and distributions from partnerships, as well as the general partnership operating rules, albeit with respect to a novel asset class and set of transactions. This section addresses the nuances that partnerships holding digital assets and their partners face.

2. Application of Subchapter K to Partnerships Holding Digital Assets

a. Contributions

(1) The General Nonrecognition Rule of §721(a)

Contributions of money or digital assets to a partnership are subject to the general nonrecognition rule under §721(a) — and to its various exceptions. Under §721, neither a partnership nor any of its partners recognizes gain or loss upon a contribution of property to the partnership in exchange for an interest in the partnership.[248] A taxpayer must contribute "property" to a partnership to qualify for nonrecognition treatment.[249] A contribution of services in exchange for an interest in partnership capital does not qualify as a nontaxable transaction under §721.[250] Although the Code does not define "property" for purposes of §721, cases and IRS rulings have construed the term to be analogous to the term "property" for purposes of §351.[251] "Property" generally is interpreted to encompass any tangible or intangible asset that may be transferred.[252] In 2014, the IRS confirmed that "for federal tax purposes, virtual currency is treated as property," and that "[g]eneral tax principles applicable to property transactions apply to transactions using virtual currency."[253] Accordingly, a contribution of digital assets to a partnership generally is not expected to result in gain or loss recognition for the partnership or its partners under §721(a), unless an exception applies.

There are a number of other provisions that may cause a contributor of property to a partnership to recognize gain or loss. For example, §721(c) may be applicable if the partnership has any foreign partners, and a related U.S. person contributes appreciated property to the partnership.[254] Other exceptions are discussed further below.

(2) The Investment Company Provisions of §721(b)

A special rule applies to contributions to partnerships holding digital assets.[255] Section 721(b) (and its corporate corollary, §351(e)) was enacted to prevent taxpayers from diversifying appreciated positions in investment-type assets without the recognition of gain by contributing those investment assets to a "swap fund" under §351 or §721.[256]

Specifically, §721(b) provides that a transferor recognizes gain realized on a transfer of property to a partnership that would be treated as an "investment company" (within the meaning of §351) if the partnership were incorporated.[257] As

[247] Reg. §1.701-2(a).

[248] §721(a).

[249] §721(a).

[250] Reg. §1.721-1(b)(1); *see generally* 711 T.M., *Formation and Contributions of Property or Services.*

[251] *See, e.g., United States v. Stafford*, 727 F.2d 1043, 1049 (11th Cir. 1984) (stating that "for purposes of determining the meaning of the terms 'property' and 'exchange' under §721(a), noted commentators have made frequent reference to judicial and administrative decisions under section 351," and using the same logic in its analysis); PLR 8117210 (closest analogous use of term "property" in §721 is found in §351).

[252] *See, e.g.*, Rev. Rul. 75-143 (stock of foreign corporation treated as property for purposes of §351); Rev. Rul. 81-38 (transfer of partnership interest to corporation qualifies under §351(a)); Rev. Rul. 80-323 (same); *P.A. Birren & Son, Inc. v. Commissioner*, 116 F.2d 718 (7th Cir. 1940) (for purposes of §351, property includes accounts receivable); Rev. Rul. 69-357 (for purposes of §351, property includes money).

[253] *See* Notice 2014-21.

[254] *See* Reg. §1.721(c)-2(b), §1.721(c)-1. Very generally, nonrecognition treatment under §721(a) does not apply to gain realized by a "U.S. transferor" upon a contribution of "section 721(c) property" to a "section 721(c) partnership." See Reg. §1.721(c)-1 for the definitions of these terms. If the §721(c) regulations apply, then the U.S. transferor must recognize any built-in gain with respect to the contributed property, unless the requirements of the "gain deferral method," as prescribed by Reg. §1.721(c)-3, are satisfied.

[255] *See* §721(b).

[256] Staff of the Joint Committee on Taxation, JCS-17-66, *Summary of the Foreign Investors Tax Act of 1966*, at 2036 ("The act provides that no gain or loss is to be recognized with respect to property that is transferred to an investment company to property that is transferred to an investment company on or before June 30, 1967, if the transfer is solely in exchange for stock or securities in the investment company and immediately after the exchange the transferor or transferors are in control of the corporation. Gain or loss will be recognized, however, with respect to such transfers made after June 30, 1967.") Staff of the Joint Committee on Taxation, JCS-33-76, *General Explanation of the Tax Reform Act of 1976*, at 656 ("Congress concluded that the creation of exchange funds through partnerships (or through trusts or corporate reorganizations) should not receive tax free [sic] gain treatment where the principal effect is to diversify a taxpayer's investment without current payment of tax.").

[257] §721(b).

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applicable here, a transfer is considered a "transfer to an investment company" if two requirements are satisfied. First, the transfer results in the diversification of the transferors' interests.[258] Second, more than 80% of the value of the partnership's assets (excluding cash and nonconvertible debt obligations from consideration) are held for investment and are readily marketable stocks or securities, or interests in RICs or REITs (an "investment company").[259]

Thus, two fundamental questions must be asked. First, does the transfer diversify any transferor's interest? Second, is the partnership an "investment company"? If the answer to either question is "no," §721(b) does not apply. The discussion below first considers the investment company analysis and then whether the transfer results in diversification.

(a) Is the Partnership an "Investment Company"?

As discussed above, a partnership is an investment company if more than 80% of its assets are certain investment-type assets. Whether a given digital asset is one of these investment-type assets for purposes of §721(b) is unclear.

As originally enacted in 1966, the investment company exception to nonrecognition treatment under §351(a) referred only to an "investment company," without regard to the types of assets the corporation held.[260] Soon after enactment, Treasury and the IRS issued regulations implementing the investment company exception, and defined an investment company as a RIC, a REIT, or a corporation more than 80% of the value of whose assets are held for investment and are readily marketable stocks or securities, or interests, in RICs or REITs. Although "securities" was not defined for this purpose, it may have referred to long-term debt instruments.[261] In 1997, Congress amended §351(e) to expand the types of assets that must be considered in determining whether a corporation should be treated as an investment company and introduced the term "securities" into the statutory exception for the first time.[262] Section 351(e)(1)(A) provides that the determination of whether a company is an investment company is made by taking into account all *stock and securities* held by the company. Section 351(e)(1)(B) provides a list of assets (collectively, the "listed assets") that must be treated as "stock and securities" for purposes of this 80-percent test. Listed assets include money as well as stock and other equity interests in a corporation, evidences of indebtedness, options, forward or futures contracts, notional principal contracts, and derivatives.[263]

Congress amended §351(e) well before the advent of digital assets. Neither §351(e) nor its regulations address digital assets in any form. Accordingly, whether a specific type of digital asset is a stock, security, or listed asset is a highly factual determination. It must first be determined what kind of property the digital asset is. For example, in some cases, a digital asset might be classified as stock in a corporation or as a derivative. In many cases, however, a digital asset will not be classified as any of the listed assets or stock, and it must then be asked whether it is a "security" for purposes of §351(e). Unfortunately, "security" has never been defined for this purpose.

Even if it is unclear whether a partnership holding digital assets is an investment company, a contribution to the partnership does not result in gain recognition under §721(b) if the transfer does not diversify any transferor's interest.[264]

(b) Does the Contribution "Diversify" Any Transferor's Interest?

The second question that must be answered is whether the contribution diversifies any transferor's interest. A transfer does not diversify any transferor's interest if the parties transfer "identical" assets, such as the same token, to the partnership.[265] However, where parties transfer nonidentical assets — such as different types of tokens, or one type of token and cash — to the partnership, the transfers may result in diversification.

The §351(e) regulations provide an exception to this general rule. Specifically, if any transaction involves one or more transfers of nonidentical assets that, taken in the aggregate, constitute an "insignificant" portion of the total value of assets transferred, the transfers are disregarded in determining whether diversification results.[266] The regulations do not define "insignificant" for purposes of this rule. However, the regulations do provide an example in which a transfer of less than 1% of the total value of assets transferred is disregarded in deter-

[258] Reg. §1.351-1(c)(1)(i).

[259] Reg. §1.351-1(c)(1)(ii).

[260] *See* former §351(a). Congress first enacted the investment company rules of present-day §351(e) as a parenthetical to §351(a). At the time, §351(a) and former §351(d) worked in tandem to implement the exception. *See* Pub. L. No. 89-809, §203(a), 80 Stat. 1577. In 1976, Congress enacted the present-day investment company exception in its current basic form. *Tax Reform Act of 1976,* Pub. L. No. 94-455 §1901(a)(48), 90 Stat. 1772.

[261] *Camp Wolters Enterprises, Inc. v. Commissioner*, 230 F.2d 555 (1956). In addressing the meaning of the term "securities" with respect to the predecessor to §351(a), §112(b)(5), the court stated:

> It is particularly evident where, after correctly stating, 'The rule appears to be well settled that where such an act does not define the term 'securities' it denotes an obligation of a character giving the creditor, because of the issuance of such obligation, some assured participation in the business and that the term does not include evidence of indebtedness for short term loans or evidences of indebtedness representing temporary advances for current corporation needs.', petitioner fails to correctly apply it because it fails to see that that is exactly what occurred here, to-wit: the 'rights' notes, the land notes and the stock were together different forms of the assured participation in the pot luck of the enterprise. The notes did not represent 'evidence of indebtedness either for short term loans' or 'temporary advances for current corporate needs'.

[262] Notably, Congress incorporated the term "securities" into §351(e)(1) after the term had been removed from all other subsections of §351. Today, §351(e)(1) remains the only subsection of §351 that references "securities."

[263] §351(e)(1)(B)(i). Special look-through rules may apply to interests in an entity. *See, e.g.*, Reg. §1.351-1(c)(4).

[264] While the regulations under §351(e) have not been revised to reflect the changes to the listed assets, the 1997 legislative history notes that all other aspects of the regulations under §351(e)(1) remain in force, including the requirement that a contribution must result in diversification. H.R. Rep. No. 105-148, 447 (June 24, 1997) ("The bill is intended to change only the types of assets considered in the definition of an investment company in the present Treasury regulations … [T]he bill does not override … the requirement that a contribution of property to an investment company result in diversification in order for gain to be recognized."); S. Rep. No. 105-33, 131 (June 20, 1997) (same); Joint Committee on Taxation, *General Explanation of Tax Legislation Enacted in 1997*, 184 (Dec. 17, 1997) ("[T]he Act did not override the requirement that a contribution of property to an investment company result in diversification in order for gain to be recognized.").

[265] Reg. §1.351-1(c)(5) (a "transfer ordinarily results in the diversification of the transferors' interests if two or more persons transfer *nonidentical* assets to a corporation in the exchange" (emphasis added)).

[266] Reg. §1.351-1(c)(5).

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mining whether diversification occurred.[267] In contrast, the IRS concluded that a transfer representing 11% of the total value of the transferred assets was significant in Rev. Rul. 87-9.[268] The methodology employed in both the regulatory example and the revenue ruling compares the value of that transfer to the total value of assets transferred as part of the transaction. The IRS has used at least one other approach to determine whether a transfer was insignificant under this rule. In PLR 200006008, the IRS analyzed a contribution of property to a partnership and compared the aggregate increase in each transferor's interest in each individual asset transferred to the aggregate value of the transferee's assets immediately after the transfers to determine whether a transfer is insignificant. There, relying on the taxpayer's representation, the IRS concluded that the transfers of nonidentical assets by the transferors, which amounted to less than 5% of the total value of the assets transferred to the partnership, were insignificant and therefore disregarded for purposes of determining whether diversification resulted.[269] Thus, the insignificant transfer rule may be a helpful exception to diversification, depending on the facts and circumstances surrounding a given contribution.[270]

In determining whether a transfer results in diversification, an entire plan must be considered. That is, if a plan contemplates a subsequent transfer, however delayed, the original transfer may be treated as resulting in diversification.[271] For example, assume that two investors contribute the same type of token to a partnership. At a later date, it is planned that a third investor will contribute a different type of token to the partnership. If all of those contributions are part of the same plan, even the initial contribution of identical tokens results in diversification. On the other hand, if a partnership holds one kind of token, and an investor will contribute cash, but the cash will be used to buy more of the same kind of token, the initial contribution of tokens would not have resulted in diversification. The meaning of "pursuant to a plan" for purposes of §351(e) and §721(b) is not clear and is an inherently subjective determination.[272]

A transaction that is relevant in the context of this plan requirement is a "hard fork" of a cryptocurrency. A hard fork of a token occurs when the token undergoes a protocol change resulting in a permanent division from the legacy or existing distributed ledger. If there is a hard fork of a token that a partnership holds, the partnership receives a new version of the token created as a result of the hard fork. A hard fork may result in the creation of a new version of the given token on a new distributed ledger in addition to the legacy tokens on the legacy distributed ledger. The partnership does not control the token protocol and cannot predict whether there will be a hard fork. After a hard fork of a token, the partnership would hold its original tokens but also the new tokens. It seems unlikely that a hard fork itself could cause previous contributions to result in diversification. However, after a hard fork, the partnership would hold at least two kinds of tokens, which may affect determinations about later contributions.

(3) Disguised Sale Rules of §707(a)(2)(B)

Another set of rules that must be considered for contributions of digital assets to partnerships are the disguised sale rules of §707(a)(2)(B).[273]

Very generally, under §707(a)(2)(B), if a partner transfers property or money to a partnership and there is a related transfer by the partnership of money or other consideration to the same partner (without regard to the order of the transfers), the transfers are treated as a sale of property *by the partnership* to a partner, or a sale of property *by a partner* to the partnership. In addition, if a partner transfers property or money to a partnership and there is a related transfer by the partnership of money or other consideration to a *different* partner (without regard to the order of transfers), the transfers may be treated as a sale of partnership interests between partners.

With respect to disguised sales of property to or from the partnership, the regulations establish a two-year presumption. A contribution by a partner and distribution to the same partner that occur within two years are presumed to be a sale or exchange of the contributed and/or distributed property, unless the facts and circumstances clearly establish that the transfers do not constitute a sale.[274] However, disclosure may be required if the taxpayer treats transfers occurring within two years of

[267] Reg. §1.351-1(c)(7) *Ex.* 1. The IRS also has ruled that contributions of cash or other assets representing less than 1% of the total value transferred were insignificant and disregarded under the insignificant transfer rule. *See, e.g.,* PLR 199926032, PLR 9751048, PLR 9733010, PLR 9608026, PLR 9544012, PLR 9345047. Private letter rulings may be relied on only by the taxpayer to which they are issued.

[268] In the ruling, some shareholders transferred corporation Y stock to newly organized corporation X, and other persons transferred cash to X. The transferors of the Y stock received 89% of the stock of X, and the transferors of cash received 11% of the stock of X. The IRS concluded in relevant part that the cash represented a significant part of the value of the property transferred to X. *See also* GCM 39253 (July 6, 1984) ("Your memorandum states that the cash will constitute approximately eleven percent of X's initial capitalization. We agree with you that eleven percent is not insignificant.").

[269] For a detailed discussion of the insignificant transfer rule, see 759 T.M., *Transfers to Controlled Corporations: Related Problems.*

[270] The §351(e) regulations also include a diversified portfolio rule which generally provides that diversification for §351(e) purposes does not result if each transferor transfers a "diversified" portfolio of stock and securities that satisfies the 25 and 50% tests of §368(a)(2)(F)(ii), applying the relevant provisions of §368(a)(2)(F). Reg. §1.351-1(c)(6)(i). A corporation meets the 25% test if "not more than 25 percent of the value of its total assets is invested in the stock and securities of any one issuer." §368(a)(2)(F)(ii). A corporation meets the 50% test if "not more than 50 percent of the *value* of its total assets is invested in the stock and securities of 5 or fewer issuers." *Id.* Depending on the facts, digital assets may or may not constitute diversified portfolios.

[271] Reg. §1.351-1(c)(5).

[272] *See, e.g.,* PLR 9538023 (suggesting that a "general intent" does not constitute a plan and points to the lack of a binding obligation or specific negotiations regarding the transfer of assets as evidence that no plan existed); GCM 39253 (July 6, 1984) (pointing to the existence of a specific plan at the time of transfer to support the IRS's determination of whether a transferee was an investment company within the meaning of §351(e)(1)); Rev. Rul. 87-9 (similarly supporting the importance of more than an abstract intention. Rev. Rul. 87-9 does not discuss the "plan" with respect to the contributed cash, but as in GCM 39253, it is reasonable to assume that there was a plan (and in fact, it was necessary) to use the cash to acquire diversifying assets); PLR 9013016 (while the IRS highlights a period of time between the contribution and a transfer as a factor to establish that no plan existed, but the ruling does not suggest that there is a "bright line" or even a preliminary presumption based on the amount of time between the contribution of the property and its transfer).

[273] For a general discussion, see 710 T.M., *Partnerships — Conceptual Overview.*

[274] Reg. §1.707-3(c)(1). *See also* Reg. §1.707-6(a).

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each other as other than a disguised sale of property.[275] Conversely, transfers made more than two years apart are presumed not to be a sale or exchange of the property, unless the facts and circumstances clearly establish that the transfers constitute a sale or exchange.[276]

The disguised sale rules must be considered with respect to any contribution to and distribution from a partnership, including those holding digital assets. For example, investment fund partnerships may distribute cash or tokens to partners that contributed tokens to the partnership. Partnerships formed to develop a protocol may make distributions of property (the newly minted tokens) to their partners within two years of the cash contributions used to fund the protocol development. While disclosure may be required, the facts and circumstances surrounding the transfers may establish that they do not constitute a disguised sale of property, thus avoiding a substantive tax issue.

b. Operations

(1) Section 704(c)(1)(A)

If an investor contributes a token, and that token is sold by the partnership or distributed to another partner, the contributing partner may be allocated a disproportionate amount of gain. If at the time of a contribution of property, the property's fair market value differs from its adjusted basis, the contributed property is "section 704(c) property," and allocations with respect to the property are subject to §704(c).[277] If a partnership sells §704(c) property, §704(c)(1)(A) generally requires gain on sale of that property to be allocated first to the contributor to the extent of the built-in gain existing at the time of contribution. This rule requires a partnership to determine which digital assets are sold at any particular time. Similarly, if a partnership determines within 7 years of a contribution, it has distributed to a partner other than the contributing partner a digital asset that is §704(c) property, under the "mixing bowl" rules discussed below, the contributor also may be required to recognize the pre-contribution gain with respect to the distributed asset. Thus, it is important that a partnership holding digital assets be able to identify the assets transferred at any particular time. This may be accomplished through the use of separate wallets.

(2) Publicly Traded Partnership Rules of §7704

A partnership is treated as a publicly traded partnership, taxable as a corporation for U.S. federal income tax purposes, if its interests are traded on an established securities market, or other transfers (such as redemptions) of its interests cause the partnership interests to be considered "readily tradable on a secondary market or the substantial equivalent thereof" within the meaning of §7704 and its regulations.[278] Characterization as a publicly traded partnership taxable as a corporation generally would subject the company's earnings to a corporate-level tax. Distributions also may be subject to tax as dividends or gain, depending on the facts. Thus, these rules must be closely monitored.

Section 7704(c) provides an exception for partnerships with passive-type income. Specifically, if 90% or more of the partnership's gross income for each year of its existence is "qualifying income," the partnership would not be treated as a publicly traded partnership.[279] Qualifying income for this purpose includes, in relevant part, income and gains from commodities (not described in §1221(a)) or futures, forwards, and options with respect to commodities, to the extent derived by a partnership the principal activity of which is the buying and selling of commodities (not described in §1221(a)(1)), or options, futures, or forwards with respect to commodities.[280] Commodities described in §1221(a) are those that would be properly includable in the inventory of the taxpayer or property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business.[281] Generally, partnerships holding digital assets for investment are not holding those assets as inventory or for sale to customers. There is no specific guidance on the meaning of commodity for purposes of this exception. However, in Rev. Rul. 73-158, the IRS looked to the agency responsible for regulating U.S. commodity exchanges as being the authority for purposes of defining the ordinary financial meaning of the term "commodity." Deference to a designation made by the Commodity Futures Trading Commission, or its predecessor — the Commodity Exchange Authority — may be reasonable in the context of §7704(d)(1)(G).

However, even if the partnership does not satisfy the qualifying income exception, the partnership may not be a publicly traded partnership if its interests are not traded on an established securities market or readily traded on a secondary market. For this purpose, an established securities market includes certain national securities exchanges, certain foreign securities exchanges, regional or local securities exchanges, and interdealer quotation systems that regularly disseminate firm buy or sell quotations by identified brokers or dealers by electronic means or otherwise.[282] Whether interests are readily traded on a secondary market generally depends on the facts and circumstances.[283] However, the regulations also provide several safe harbors, which are bright line rules that, if met, allow certain transfers to be disregarded under the general facts and circumstances analysis.[284] The fact that a safe harbor does not apply, however, does not create a presumption that the partnership's interests are readily tradable. Rather, such failure is disregarded in determining under the general facts and circumstances test whether an interest is readily traded on a secondary market. Very generally, if interests are only able to be transferred on an irregular basis, they are not considered to be readily tradeable

[275] *See* Reg. §1.707-8.

[276] Reg. §1.707-3(d). *See also* Reg. §1.707-6(a).

[277] Reg. §1.704-3(a)(3)(i). For further discussion, see 712 T.M., *Partnerships — Taxable Income; Allocation of Distributive Shares; Capital Accounts.*

[278] For further discussion, see 723 T.M., *Publicly Traded Partnerships.*

[279] §7704(c)(1), §7704(c)(2).

[280] §7704(d)(1)(G).

[281] §1221(a)(1).

[282] Reg. §1.7704-1(b).

[283] Reg. §1.7704-1(c) provides a list of certain circumstances in which interests are considered readily tradable. Both the regulations and the legislative history focus on the presence of a market maker or other opportunity for holders of partnership to sell their interests in a time frame and with the regularity and continuity that would exist if the interests were traded on an established market. If interests are only able to be sold on an irregular basis, they are not considered to be readily tradeable on the substantial equivalent of a secondary market.

[284] Reg. §1.7704-1(c)(3).

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on the substantial equivalent of a secondary market.[285] The legislative history to §7704 describes when the substantial equivalent of a secondary market might exist:[286]

> The substantial equivalent of a secondary market exists where there is not an identifiable market maker but the holder of an interest has a readily available, regular and ongoing opportunity to sell or exchange his interest through a public means of obtaining or providing information of offers to buy, sell or exchange interests. Similarly, the substantial equivalent of a secondary market exists where prospective buyers and sellers have the opportunity to buy, sell or exchange interests in a time frame and with the regularity and continuity that the existence of a market maker would provide. If interests can be traded in a market that is publicly available but offers to buy or sell interests are normally not accepted in a time frame comparable to that which would be available on a secondary market, then the interests are not treated as readily tradable on the substantial equivalent of a secondary market. For example, if interests are quoted and traded on an irregular basis as a result of bid and ask prices listed on a computerized system, and such interests cannot normally be disposed of within the time that they could be disposed of on an over-the-counter market, then the interests are not considered as readily tradeable on the substantial equivalent of a secondary market.

(3) Tax Exempt Participants (§512(b))

Although generally exempt from U.S. tax, most tax-exempt entities, including qualified pension plans, individual retirement accounts (IRAs), Roth IRAs, foundations, endowments and state or municipal colleges and universities, are subject to full U.S. tax on the income they derive from the conduct of a trade or business that is unrelated to their tax-exempt purpose.[287] Income derived from an unrelated trade or business (UBTI) is subject to tax at regular graduated rates.[288]

Section 512(c)(1)[289] provides that, if an exempt organization is a member of a partnership regularly engaged in a trade or business that is unrelated to its exempt purpose, then the exempt entity must include in its UBTI that portion of its share of the partnership gross income (whether distributed or not), and the deductions attributable thereto, derived from the unrelated trade or business.

Commentary: Certain activities associated with digital asset investments performed directly and indirectly within the digital assets ecosystem may generate UBTI. For example, staking, as discussed later, could be considered to be providing services to the blockchain and therefore result in trade or business income under §513(a).

Other activities such as mining, lending, minting NFTs, and participating in DeFi transactions may generate UBTI. Further, any leveraged investment activity may generate UBTI (see XI.G., below). Many of these novel investments and activities should be analyzed separately to determine the nature of the investment and any rewards received. The investment type and income recognition vary widely across the industry.

In a passthrough partnership structure, UBTI may be allocated to UBTI-sensitive investors depending on the underlying portfolio activity. To mitigate the impact of UBTI allocations, foreign and/or domestic corporate blocker may be introduced to the structure between the investment and the tax-exempt investor. The blocker will report and pay any taxes on income from the portfolio, subject to the requirements of its jurisdiction. As a shareholder of the blocker, the tax-exempt investor will only bear the economic burden of any taxes paid.

c. Distributions

Commentary: As with any partnership, a partnership holding digital assets may make distributions of money or property (including tokens). The subchapter K considerations relevant to distributions of money differ from those relevant to distributions of property.

(1) Cash Distributions

In the case of a cash distribution, the general rules of §731(a) would apply. Under §731(a)(1), a distributee partner does not recognize gain as a result of a distribution from a partnership except to the extent that any "money" distributed exceeds the adjusted basis of the partner's interest in the partnership immediately before the distribution.[290] The distributee partner's adjusted basis includes items of income, gain, loss, and deduction allocated to that partner through the date of the distribution as well as the adjusted basis of any property the distributee contributed.[291] If the cash received exceeds the distributee partner's adjusted basis in its partnership interest, the partner recognizes capital gain under §731(a)(1).[292] Though uncommon with partnerships holding digital assets, §751(b) also may be relevant if a distribution of cash (or property) changes any partner's share of "hot assets."[293] A partner may recognize loss if the distribution is a liquidating distribution and the only property distributed is money, unrealized receivables within the meaning of §751(c), and inventory within the meaning of §751(d).[294]

As discussed in more detail above, in some circumstances, a distribution of cash can be considered part of a disguised sale of property or partnership interests under §707(a)(2)(B), if the distribution is related to a contribution of property by the same

[285] *See* Reg. §1.7704-1(c).

[286] H.R. Conf. Rep. No. 100-495, at 948 (1987).

[287] §511, §512, §513.

[288] §511(a)(1).

[289] See 478 T.M., *Tax-Exempt Organizations — Mergers, Acquisitions, and Joint Ventures,* for in-depth analysis of tax-exempt organizations.

[290] §731(a)(1).

[291] §705(a); §722.

[292] §731(a); Reg. §1.731-1(a)(3). If the distributing partnership has a valid 754 election in effect for the taxable year in which the distribution occurs, the adjusted basis of the remaining partnership property is increased by the amount of gain that the distributee partner recognizes under §731(a)(1). §734(b); Reg. §1.734-1(b)(1)(i). That adjustment is allocated among the remaining partnership property under §755 and its regulations.

[293] Very generally, "hot assets" are assets that would generate ordinary income if disposed of by the partnership, such as "unrealized receivables" (including depreciation recapture) within the meaning of §751(c) and substantially appreciated "inventory items" within the meaning of §751(d). §751(b)(1)(A); Reg. §1.751-1(a). See 720 T.M., *Partnership Transactions — Section 751 Property* for a complete analysis.

[294] §731(a)(2).

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partner or to a contribution of cash by another partner. For this purpose, certain presumptions and exceptions apply.[295]

(2) Token Distributions

Commentary: The application of subchapter K to a distribution of tokens is more complicated. For example, partnerships formed for the purpose of developing a protocol and minting tokens may distribute the tokens (subject to regulatory restrictions) to the cash contributors. In other cases, partnerships formed with contributions of cash or tokens may distribute the tokens purchased with cash contributions or the tokens contributed to its partners.

(a) General Rules for Distributions of Property

Section 731 generally provides for nonrecognition of gain to a partner or the partnership upon the distribution of property or money by a partnership. An exception exists when a distributee partner receives money in excess of such partner's outside basis, as §731(a) requires that gain be recognized equal to such excess. For this purpose, as discussed below, marketable securities may be treated as "money" and may result in gain recognition for a distributee partner.[296] The basis of property that a partnership distributes to a partner in a current distribution equals the lesser of (i) the partnership's adjusted basis in the property immediately before the distribution, or (ii) the partner's adjusted basis in its partnership interest immediately before the distribution.[297] In the case of a liquidating distribution, the basis of property (other than money, unrealized receivables, or inventory) equals the adjusted basis of the partner's interest in the partnership, reduced by any money distributed in the same transaction.[298]

(b) Which Token Is Distributed

Many of the subchapter K rules governing property distributions will apply differently depending on which token is distributed. If a partnership distributes less than all of a particular kind of digital asset (for example, a partnership holds 8 BTC but distributes 2), it must be determined which particular tokens were distributed. For example, if the partnership has acquired these tokens at different times, the basis of the distributed token will depend on which token was distributed. If some of the tokens were acquired by contribution, a distribution of the contributed tokens to a different partner may implicate the mixing bowl rules. The same considerations applicable to sale of tokens, discussed in V.B., above, generally should also apply to distributions.

(c) Time of Distribution

A unique question that sometimes arises when a partnership distributes tokens is whether the distribution has occurred for tax purposes at all. A partnership distribution generally occurs for U.S. federal income tax purposes on the date that the distribution legally occurs.[299] Thus, it first must be determined when a distribution for legal purposes has occurred in order to apply the subchapter K rules appropriately. As discussed above, investors — individuals and entities, including partnerships, alike — hold digital assets in digital wallets. In some instances, a partnership distributes tokens to its partner but continues to hold the tokens in its own wallet for various reasons. Absent an agency or nominee agreement, it is not clear that the partnership has distributed any property at all because the partnership retains control, and may retain benefits and burdens of ownership, of the tokens.

(d) Application of §731(c) to Token Distributions

(i) Is a Token a "Marketable Security" Under §731(c)?

As discussed above, a distributee partner recognizes gain under §731(a)(1) if the amount of "money" distributed exceeds that partner's adjusted basis in its partnership interest. Money for this purpose includes actual cash as well as "marketable securities" under §731(c).[300] Marketable securities are taken into account at their fair market value in determining whether a distribution of "money" exceeds the distributee partner's adjusted basis in its partnership interest.[301]

If a token is considered "money" for purposes of §731(a)(1) — either because the token is money within the plain meaning of the word or because it is a marketable security — a partner who receives a distribution of a token may recognize gain to the extent the fair market value of the distributed tokens exceeds that partner's adjusted basis in its respective partnership interest. However, if a distributed token is not considered "money," then the token is property for purposes of §731, and a partner generally does not recognize gain under §731(a)(1) as a result of the distribution.

A token generally should not be considered "money" within the plain meaning of the word for §731 purposes. There is no §731-specific definition of "money"; however, as discussed in IV.A.2., above, the term "money" for U.S. federal income tax purposes generally is interpreted to mean the coin and paper money that has been declared as legal tender of the United States. There is no indication that the term "money" when used in §731(a) was intended to mean anything other than U.S. dollars. In fact, the existence of §731(c) supports this narrow interpretation, at least for purposes of §731. Congress enacted §731(c) in 1994 to prevent taxpayers from exchanging their interests in a partnership for assets that are readily convertible into cash (i.e., money like assets).[302] Interpreting the term "mon-

[295] See 710 T.M., *Partnerships — Conceptual Overview* for further analysis.

[296] See 714 T.M., *Partnerships — Allocation of Liabilities; Basis Rules*, for further discussion.

[297] §732(a).

[298] §732(b).

[299] There is an exception to this general rule for "drawings" made to a partner. Under the drawing rule, a distribution of money or property against a partner's distributive share of partnership income may be deemed to be a current distribution made on the last day of the partnership's taxable year, after the partnership has allocated partnership items. Reg. §1.731-1(a)(1)(ii).

[300] For purposes of §731(a)(1), "money" also includes deemed distributions of money under §752(b) as a result of a net decrease in any partner's share of partnership or individual liabilities.

[301] §731(c)(1)(B); Reg. §1.731-2(a).

[302] H.R. Rep. No. 103-826, pt. 1, at 187–88 (1994). The House Report provided:

> [T]axpayers can exchange interests in appreciated assets for marketable securities while deferring or avoiding tax on the appreciation, by using the present-law rules relating to partnership distributions … . If the taxpayer were to exchange an interest in an appreciated asset for cash, he generally would recognize gain

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ey" to mean "any asset readily convertible into cash" would make the marketable security rules of §731(c) superfluous.

It is less clear whether a given token should be treated as money because it is a marketable security within the meaning of §731(c). Under §731(c), the term "marketable securities" generally means "financial instruments" and foreign currencies that are "actively traded" (within the meaning of §1092(d)(1)) on the date of distribution.[303] It is often not clear whether a given digital asset is a "financial instrument." For this purpose, the term "financial instrument" includes (but is not necessarily limited to) stocks and other equity interests, evidences of indebtedness, options, forward or future contracts, notional principal contracts, and derivatives.[304] As with §721(b), Congress last amended the rules of §731(c) well before the advent of digital assets. Thus, a determination of whether a given digital asset is a financial instrument for this purpose is based on the facts and circumstances surrounding that asset.

A "financial instrument" is "actively traded" if there is an "established financial market" for the instrument.[305] An "established financial market" includes, among other things, an interdealer market, which generally is a system of circulation that provides a reasonable basis for determining the fair market value of an instrument based on recent transactions.[306] Many digital assets are traded on an exchange, such as Binance, Coinbase, Kraken, and Gemini and thus arguably are "actively traded" for this purpose. However, even if a given token is a marketable security, §731(c) and its regulations provide a number of exceptions that may eliminate or reduce the amount of gain that a distributee partner recognizes in connection with a distribution of tokens.

(ii) Exceptions to §731(c)

(A) The Previously Contributed Property Exception

If a partnership distributes a token to the partner that contributed the token, that token is not considered a marketable security.[307] Thus, where applicable, the token would not be treated as money, and the partner would not recognize gain under §731(a)(1) with respect to the distribution of the tokens. Of course, as noted above, if a partnership holds multiple fungible tokens, not all of which were contributed by the distributee partner, there is a question of how to identify that a previously contributed token was distributed.

(B) The Investment Partnership Exception

The investment partnership exception may also prevent tokens from being treated as money for purposes of §731(a).[308] This exception applies if the distributing partnership is an "investment partnership," and the distributee partner is an "eligible partner" thereof.[309]

A partnership must satisfy two requirements to be an investment partnership: (i) the partnership must never have been engaged in a trade or business (the "No Trade or Business Requirement"); and (ii) substantially all the assets (by value) of the partnership must have always consisted of certain investment-type assets ("Investment Assets") (the "Investment Asset Requirement").[310]

A partnership holding digital assets satisfies the No Trade or Business Requirement if the partnership has never been engaged in a trade or business.[311] For this purpose, a trade or business does not include, in relevant part, any activity undertaken as an investor, trader, or dealer in any Investment Asset.[312] Whether a partnership holding digital assets has ever been engaged in a trade or business may be complicated. For example, if a partnership stakes its tokens, it must be considered whether staking rises to the level of a trade or business or whether it is an activity undertaken as an investor in the tokens.[313]

A partnership holding digital assets satisfies the Investment Asset Requirement if substantially all of the partnership's assets (by value) have always consisted of Investment Assets.[314] Investment Assets are defined as: (i) money; (ii) stock in a corporation; (iii) notes, bonds, debentures, or other evidences of indebtedness; (iv) interest rate, currency, or equity notional principal contracts; (v) foreign currencies; (vi) interests in or derivative financial instruments (including options, forward or futures contracts, short positions, and similar financial instruments) in any asset described in any other subclause of this clause or in any commodity traded on or subject to the rules of a board of trade or commodity exchange; (vii) other assets specified in regulations prescribed by the Secretary; or (viii) any combination of the foregoing.[315] An asset is not required to be actively traded to qualify as an Investment Asset. For exam-

on the appreciated asset; yet if the taxpayer receives a distribution of marketable securities, which are nearly as easily valued and as liquid as cash, he can avoid gain recognition. This distinction in tax treatment between cash and marketable securities elevates form over substance, causes taxpayers to choose the form of transactions for tax reasons.

[303] Section 731(c)(2)(B) lists other property that is considered a marketable security. For a detailed discussion of §731(c), see Phillip Gall and David Franklin, *Partnership Distributions of Marketable Securities, in* THE PARTNERSHIP TAX PRACTICE SERIES: PLANNING FOR DOMESTIC AND FOREIGN PARTNERSHIPS, LLCS, JOINT VENTURES, & OTHER STRATEGIC ALLIANCES 2018, Vol. 7 at 131-1 (PLI Tax Law & Practice, Course Handbook Series No. J-916, 2018).

[304] §731(c)(2)(C).

[305] §1092(d)(1); Reg. §1.1092(d)-1(a).

[306] Reg. §1.1092(d)-1(b)(2)(i).

[307] §731(c)(3)(A)(i); Reg. §1.731-2(d)(1)(i). The §731(c) regulations provide special successor rules if contributed property was exchanged in a nonrecognition transaction. Reg. §1.731-2(d)(3).

[308] §731(c)(3)(A)(iii); Reg. §1.731-2(e).

[309] §731(c)(3)(A)(iii); Reg. §1.731-2(e)(1).

[310] *See* §731(c)(3)(C)(i).

[311] §731(c)(3)(C)(i).

[312] §731(c)(3)(C)(ii)(I). For this purpose, a trade or business also does *not* include: (i) reasonable and customary management services provided to an Investment Partnership in which the partnership holds an interest; or (ii) reasonable and customary services provided by the partnership in assisting the formation, capitalization, expansion, or offering of interests in a corporation (or other entity) in which the partnership holds or acquires a significant equity interest, provided certain conditions are satisfied. §731(c)(3)(C)(ii)(II) and §731(c)(3)(C)(ii)(III); Reg. §1.731-2(e)(3). An upper-tier partnership is attributed the trade or business of its lower-tier partnership unless certain conditions are satisfied. Reg. §1.731-2(e)(4).

[313] Staking is a consensus mechanism that is used to build the blockchain. Holders of cryptocurrencies that elect to "stake" their tokens put their tokens at risk to add to the blockchain. If a transaction that is added to the blockchain is found to be invalid, staked tokens are "burned" (eliminated) by the network. For further discussion of staking, see VII.C., below.

[314] §731(c)(3)(C)(i)(I)–§731(c)(3)(C)(i)(VIII).

[315] §731(c)(3)(C)(i). For purposes of §731(c)(3)(C)(i), an upper-tier partnership is attributed the assets of its lower-tier partnership unless certain conditions are satisfied. Reg. §1.731-2(e)(4).

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ple, privately held stock of an operating corporation generally is not a marketable security under §731(c) but would be a permissible asset for an "investment partnership." Thus, in at least some ways, the list of Investment Assets is broader than the definition of a marketable security.

Commentary: Although the list of Investment Assets does not include tokens or other digital assets, arguably a token is considered an Investment Asset for this purpose. The list does not explicitly include "anything that is a marketable security for purposes of §731(c)," but it is arguable that "money" in the context of the statutory list of Investment Assets under §731(c)(3)(C)(i)(I) includes any asset that is a marketable security for purposes of §731(c). This follows from the general operation of §731(c), which provides that for purposes of §731(a)(1), money includes marketable securities. This reading also is consistent with congressional intent to exclude partnerships that are formed for the purpose of holding marketable securities for investment or sale to customers from being subject to §731(c).[316] If "money" did not include everything that might otherwise be a "marketable security," the list of qualifying investment assets would be narrower than the definition of "marketable security."

The IRS has applied this reading of "money" in the list of Investment Assets in at least one private ruling. In PLR 199926032, a number of persons contributed cash to X, a partnership, which used the cash to invest in approximately 15 lower-tier partnerships (LTP). At least 90% of the assets of each of the LTP consisted of marketable securities, money, or both. At least 90% of X's assets (by value) always consisted of its interests in the LTPs. While partnership interests are not on the list of permissible assets, the IRS ruled that X was an investment partnership because X owned only interests in lower-tier partnerships that "constitute[d] a "marketable security" as defined in section 731(c)." This ruling implies that all marketable securities are eligible assets (*i.e.,* treated as "money") for purposes of §731(c)(3)(C)(i)(I).[317] For these reasons, it is arguable that if a given token is a marketable security under §731(c), then that token also is an Investment Asset for purposes of the investment partnership exception.

In addition to the Investment Assets element of the investment partnership exception, the distributee partner must be an "eligible partner." An eligible partner is a partner that only has contributed Investment Assets or services in exchange for a partnership interest.[318]

(C) Exceptions Based on When a Token Becomes "Marketable"

In some cases, a partnership acquires a token before the token is actively traded. For example, a partnership (or its corporate subsidiary) might mint a token, and the token does not immediately begin trading, but, when the partnership distributes the token, the token is traded on one or more exchanges. The §731(c) regulations provide special rules exempting such tokens from being treated as marketable securities under §731(c) if three conditions are satisfied.[319] First, the entity that issued the security must have had no outstanding marketable securities at the time the security was acquired by the partnership.[320] Second, the security must have been held by the partnership for at least six months before the date the security became marketable.[321] Third, the partnership must have distributed the security within five years of the date the security became marketable.[322]

(D) The Gain Limitation Rule

A final exception to §731(c) may reduce or eliminate the amount of gain that a distributee partner recognizes in connection with a distribution of tokens. Specifically, the amount of marketable securities treated as money under §731(c) is reduced (but not below zero) by an amount equal to the excess, if any, of: (i) the distributee partner's distributive share of the net gain that would be recognized if all of the partnership's marketable securities were sold for fair market value immediately before the transaction to which the distribution relates; over (ii) the partner's distributive share of the net gain that would be recognized by the partnership on a sale of the marketable securities held by the partnership immediately after the transaction to which the distribution relates (the Gain Limitation Rule).[323] For this purpose, a partner's distributive share of net gain is calculated without taking into account any gain or loss attributable to marketable securities to which another exception applies.[324]

For example, assume that Partner A contributes $600 cash, Partner B contributes $200 cash, and Partner C contributes $200 cash to partnership PRS. PRS uses the cash to purchase tokens. When the fair market of PRS is $3,000, and Partner A's interest is worth $1,800 with an adjusted basis of $600, PRS distributes $1,800 of the purchased tokens to Partner A in liquidation of Partner A's PRS interest. Assuming the tokens are marketable securities, Partner A might recognize $1,200 of gain under §731(a)(1). However, the Gain Limitation Rule reduces the amount of §731(a)(1) gain to $0 as follows:

If PRS were to sell all of its tokens for fair market value immediately before the distribution, Partner A would be allocated tax gain of $1,200 — its share of the economic appreciation of the tokens (*i.e.,* 60% of $2,000). If PRS were to sell all of its tokens for fair market value immediately after the distrib-

[316] *See* H.R. Rep. 103-826, pt. 1, at 188 (1994) ("It is acknowledged that certain partnerships are formed for the purpose of holding marketable securities for investment or for sale to customers. Thus, an exception is provided in the case of a distribution of marketable securities or other similar property."); S. Rep. No. 412, at 154 (same). At least two commentators agree. *See* Phillip Gall & David Franklin, *Partnership Distributions of Marketable Securities,* THE PARTNERSHIP TAX PRACTICE SERIES: PLANNING FOR DOMESTIC AND FOREIGN PARTNERSHIPS, LLCS, JOINT VENTURES, & OTHER STRATEGIC ALLIANCES 2020, Vol. 6, 146-1 (PLI Tax Law & Practice, Course Handbook Series No. J-916, 2020), at 101 ("An asset can be an eligible asset [under section 731(c)(3)(C)(i)] whether or not it is actively traded or otherwise treated as a marketable security under section 731(c). Presumably, all marketable securities are eligible assets.").

[317] The IRS has issued a number of private letter rulings applying the investment partnership exception but generally relies on non-specific facts and representations around whether the partnership at issue owns "substantially all" permissible assets. *See, e.g.,* PLR 9821015, PLR 199902008, PLR 20049032.

[318] §731(c)(3)(C)(iii); Reg. §1.731-2(e)(2).

[319] Reg. §1.731-2(d)(1)(iii).

[320] Reg. §1.731-2(d)(1)(iii)(A).

[321] Reg. §1.731-2(d)(1)(iii)(B).

[322] Reg. §1.731-2(d)(1)(iii)(C). Another exception applies specifically when a security was acquired by the partnership in a nonrecognition transaction, and two conditions are satisfied. *See* Reg. §1.731-2(d)(1)(ii).

[323] §731(c)(3)(B); Reg. §1.731-2(b)(2).

[324] Reg. §1.731-2(b)(3)(iii). A partner's distributive share of net gain is computed taking into account any §743(b) adjustments with respect to that partner. Reg. §1.731-2(b)(3)(i).

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ution, Partner A would be allocated tax gain of $0 because Partner A is no longer a partner in PRS. Therefore, under the Gain Limitation Rule, the amount of marketable securities that Partner A is treated as receiving is reduced by $1,200 — to $600. Though the fair market value of the tokens distributed is $1,800 (and in excess of Partner's A adjusted basis in its PRS interest of $600), in these facts, the Gain Limitation Rule reduces the amount of marketable securities treated as money to $600, an amount equal to Partner A's adjusted basis. As a result, Partner A would not recognize gain under §731(a)(1) after the application of the Gain Limitation Rule.[325]

The Gain Limitation Rule, however, may not always fully protect a partner from recognition of gain under §731(a)(1). A taxpayer will need to do the math with respect to any particular distribution.[326]

(e) When a Token Distribution Is a Property Distribution

If a given token is not a marketable security under §731(c), a partnership's distribution of that token is considered a distribution of property and subject to the general rules governing property distributions under §731 and §732. That is, generally neither the partner nor the partnership recognizes gain under §731. In a current distribution, the distributee partner takes an adjusted basis in the token equal to the partnership's adjusted basis in that token, limited by the partner's adjusted basis in its partnership interest.[327] In a liquidating distribution, the distributee partner takes an adjusted basis in the token equal to the partner's adjusted basis in its partnership interest.[328]

A distribution of a token that is a marketable security also is treated as a distribution of property, subject to the general rules of §732, to the extent that the fair market value of the tokens distributed does not exceed the partner's adjusted basis in the distributing partnership.[329] The distribution of tokens that are marketable securities is only treated as a distribution of money to the extent the fair market value of the distributed tokens exceeds the partner's adjusted basis in the partnership. The distribution of "money" is what gives rise to gain under §731(a)(1), which increases the partner's adjusted basis in the distributed tokens.[330]

(f) Application of §704(c)(1)(B) and §737 to Token Distributions

The mixing bowl rules of §704(c)(1)(B) and §737 also can result in gain recognition if the distributee partner contributed appreciated property to the partnership, or the tokens distributed were contributed by a person other than the distributee partner.

Section 704(c)(1)(B) applies to distributions of contributed property to *another partner*.[331] It provides that if any contributed §704(c) property is distributed by the partnership to another partner within seven years of being contributed, the contributing partner generally is required to recognize the precontribution gain or loss that has not previously been taken into account as if the property had been sold by the partnership for its fair market value at the time of the distribution. Section 704(c)(1)(B), however, does not apply to a distribution of §704(c) property by a partnership to the partner that contributed that property to the partnership. Thus, where partners contribute tokens (or other assets) that are §704(c) property to a partnership holding digital assets, it may be important that the partnership be able to identify that property because a distribution of §704(c) property to its contributor will not result in gain. In contrast, a distribution of §704(c) property to the noncontributor will cause the contributor to recognize gain under §704(c)(1)(B). In other words, if the partnership holds multiple fungible tokens, only some of which were contributed by a partner, the partnership may need to identify the contributed tokens in order to avoid distributing them to another partner within 7 years of the contribution.

Section 737(a) applies to distributions of *other property* to the contributing partner.[332] It provides that a distribution of property to a partner results in gain recognition to the partner in an amount equal to the lesser of: (i) the partner's "net precontribution gain;" or (ii) the "excess distribution." Section 737(b) defines "net precontribution gain" as the net gain (if any) that would have been recognized by the distributee partner under §704(c)(1)(B) if all property that had been contributed to the partnership by the distributee partner within seven years of the distribution, and is owned by the partnership immediately before the distribution, had been distributed by the partnership to another partner.[333] The "excess distribution" amount is the excess, if any, of the fair market value of the property received in the distribution (other than money) over the adjusted basis of the distributee's partnership interest immediately before the distribution (reduced by the amount of money received in the distribution).[334] Under §737(d)(1), if any portion of the property distributed consists of property that had been contributed by the distributee partner to the partnership, the value of the previously contributed property is not taken into account in determining the amount of the excess distribution or the partner's net precontribution gain. If a partner receives a distribution of all property that it previously contributed, the partner's net precontribution gain would be zero, and §737 would not apply to future distributions to that partner.

> *Example:* Assume that a partner contributes appreciated tokens, which are treated as §704(c) property to that partner. The partnership also purchases more of the same type of token. If the partnership later distributes tokens, the partnership needs to be able to identify which tokens it distributed: the contributed or the purchased tokens? If only the purchased tokens are distributed, §704(c)(1)(B) would

[325] See Reg. §1.731-2(j) *Ex.* 2, for the application of the Gain Limitation Rule.

[326] For a more detailed example of the gain limitation rule, see 811 T.M., *Partnerships — Current and Liquidating Distributions; Death or Retirement of a Partner.*

[327] §732(a); Reg. §1.732-1(a).

[328] §732(b); Reg. §1.732-1(a), §1.732-1(b).

[329] §731(c)(4)(A)(i); Reg. §1.731-2(f)(1)(i).

[330] §731(c)(4)(A)(ii); Reg. §1.731-2(f)(1)(i).

[331] For a more detailed discussion, see 712 T.M., *Partnerships — Taxable Income; Allocation of Distributive Shares; Capital Accounts.*

[332] For a more detailed discussion, see 712 T.M., *Partnerships — Taxable Income; Allocation of Distributive Shares; Capital Accounts.*

[333] *See also* Reg. §1.737-1(c)(1).

[334] §737(a); *see also* Reg. §1.737-1(b)(1).

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not apply, but §737 would need to be considered if the distribution is made to the partner that previously contributed tokens. If the contributed tokens are distributed, the partnership would need to ensure that the contributor (and not another partner) receives its contributed tokens, or the contributor could recognize gain under §704(c)(1)(B) and/or §737. This tracking issue also comes up when a partnership disposes of tokens other than by distribution. If a partnership sells a token that is §704(c) property, the gain on sale of that property generally is required to be allocated first to the contributor to the extent of the pre-contribution gain; thus, it is important that a partnership be able to identify what tokens it sells to appropriately apply the mixing bowl rules.

d. Conclusion

Partnerships holding digital assets must analyze the same subchapter K rules as partnerships holding more conventional asset classes. Digital asset partnerships experience the same events as more traditional partnerships, albeit with respect to a novel asset class. Partners make contributions, and it must be determined whether those contributions result in recognition of gain or loss. The partnership earns income, incurs expenses, and realizes gains and losses, and it must be determined how those items are allocated. Finally, the partnership may make distributions of cash and digital assets to partners, and it must be determined whether gain or loss results and the basis in the distributed property.

B. Regulated Investment Companies

Domestic corporations that meet certain requirements may elect to be taxed as regulated investment companies (RICs). Specifically, §851 sets forth the requirements necessary for an entity to qualify as a RIC. These requirements include, but are not limited to a quarterly asset diversification test and an annual income test. An entity qualifying as a RIC and meeting certain distribution requirements may pay through the character of certain types of income earned by the RIC to its shareholders.[335]

Section 851(a) defines the term "regulated investment company," but §851(b) sets forth the specific requirements that must be satisfied by a corporation in order to qualify as a RIC. Among the qualification requirements of §851(b) are the income test and the asset diversification test.

The income test under §851(b)(2) requires that at least 90% of the corporation's gross income for the taxable year be derived from:[336]

i. dividends, interest, payments with respect to securities loans (as defined in §512(a)(5)), and gains from the sale or other disposition of stock or securities (as defined in §2(a)(36) of the 1940 Act) or foreign currencies, or other income (including but not limited to gains from options, futures or forward contracts) derived with respect to its business of investing in such stock, securities, or currencies, and

ii. net income derived from an interest in a qualified publicly traded partnership (as defined in §851(h)).

Section 851(b)(3) provides that to be treated as a RIC a corporation also must satisfy the following asset diversification requirements at the close of each quarter of the corporation's taxable year:

i. at least 50% of the value of its total assets is represented by: (a) cash and cash items (including receivables), Government securities and securities of other RICs; and (b) other securities for purposes of this calculation limited, except and to the extent provided in §851(e), in respect of any one issuer to an amount not greater in value than 5% of the value of the total assets of the taxpayer and to not more than 10% of the outstanding voting securities of such issuer, and

ii. not more than 25% of the value of its total assets is invested in: (a) the securities (other than Government securities or the securities of other RICs) of any one issuer; (b) the securities (other than the securities of other RICs) of two or more issuers that the taxpayer controls and that are determined, under regulations prescribed by the Secretary, to be engaged in the same or similar trades or businesses or related trades or businesses; or (c) the securities of one or more qualified publicly traded partnerships (as defined in §851(h)).

The income test and asset diversification requirements both use the term "securities." For purposes of the income test, a security is defined by reference to §2(a)(36) of the 1940 Act.[337] Section 851(c) provides rules and definitions that apply for purposes of the asset diversification requirements of §851(b)(3) but does not specifically define "security." Section 851(c)(6), however, provides that the terms used in §851(b)(3) and §851(c) have the same meaning as when used in the 1940 Act. An asset therefore may be a security for purposes of the income test and the asset diversification requirements if it is a security under the 1940 Act.

1. Investments in Commodities

Neither a commodity or a derivative on a commodity are securities for purposes of §851(b)(2).[338] Rev. Rul. 2006-1 analyzed the issue and concluded that a derivative contract with respect to a commodity index was not a security for purposes of §851(b)(2) because the underlying property was a commodity (or commodity index).[339] The ruling also holds that income from

[335] *See* 740 T.M., *Taxation of Regulated Investment Companies and Their Shareholders.*

[336] §851(b)(2).

[337] 15 U.S.C. §80a-2(a)(36) (Investment Company Act of 1940, "1940 Act"), 15 U.S.C. §77b–§77c (Securities Act of 1933 and Securities Exchange Act of 1934). *See, e.g.,* SEC Chairman Jay Clayton, *Statement on Cryptocurrencies and Initial Coin Offerings* n.2, U.S. Securities and Exchange Commission (Dec. 11, 2017) (explaining that "The CFTC has designated bitcoin as a commodity. Fraud and manipulation involving bitcoin traded in interstate commerce are appropriately within the purview of the CFTC, as is the regulation of commodity futures tied directly to bitcoin. That said, products linked to the value of underlying digital assets, including bitcoin and other cryptocurrencies, may be structured as securities products subject to registration under the Securities Act of 1933 or the Investment Company Act of 1940.").

[338] Rev. Rul. 2006-1.

[339] Rev. Rul. 2006-1. The ruling of Rev. Rul. 2006-1 was modified and clarified by Rev. Rul. 2006-31 (the IRS noted that Rev. Rul. 2006-1 was not intended to preclude the conclusion that income from "certain structured notes" cre-

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such a contract is not qualifying other income for purposes of §851(b)(2).

Gains from commodities and derivatives on commodities are not qualifying income for purposes of §851(b)(2) unless the gain or income is treated as qualifying "other income."[340] Thus, a RIC cannot directly hold digital assets that are considered to be commodities or derivatives on digital assets, unless gain or income from such positions is limited to 10% or less of gross income.[341] Gain or income treated as qualifying "other income" would not be subject to this limit. As discussed below, however, a RIC may, however, be able to indirectly hold these assets by investing in a foreign corporation or subsidiary that does hold these assets.

2. Investments in Foreign Corporations

Rather than invest directly in commodities or derivative contracts with respect to commodities (or an index), RICs seeking this type of investment exposure invest in foreign corporations which do so; although such investment cannot exceed 25% of the total value of assets in the foreign corporation.[342] The IRS issued favorable letter rulings under §851(b)(2) treating inclusions under §951(a)(1)(A)(i) or §1293(a) as qualifying "other income" derived with respect to a RIC's business of investing in currencies or 1940 Act stock or securities even in the absence of a distribution.[343] However, the IRS reconsidered this favorable treatment of undistributed inclusions as qualifying income and published regulations containing a distribution requirement based upon its analysis of §851(b).[344] Section 851(b) specifies how a RIC treats amounts included in income under §951(a)(1)(A)(i) or §1293(a) for purposes of the income test of §851(b)(2):

> For purposes of [§851(b)(2)], there shall be treated as dividends amounts included in gross income under section 951(a)(1)(A)(i) or 1293(a) for the taxable year to the extent that, under section 959(a)(1) or 1293(c) (as the case may be), there is a distribution out of the earnings and profits of the taxable year which are attributable to the amounts so included.[345]

The significance of treating an inclusion as a dividend under §851 is that a dividend is qualifying income under §851(b)(2). Section 851(b) and Reg. §1.851-2(b)(2)(i) condition dividend treatment of an inclusion under §951(a)(1)(A)(i) or §1293(a) on a distribution from the foreign corporation's earnings and profits attributable to the amount included. In addition, the regulations provide that, for purposes of §851(b)(2), an inclusion under §951(a)(1) or §1293(a) that is derived with respect to a RIC's business of investing in stock, securities, or currencies qualifies as other income.[346] The regulations do not preclude the use of a foreign corporation for purposes of commodity investments; however, an inclusion may be treated as a qualifying dividend. Thus, subject to these limitations, a RIC seeking investment exposure to digital assets may obtain that exposure by investing in foreign corporations holding digital assets or derivatives referencing digital assets.

C. Fixed Investment Trusts

A fixed investment trust where the issuing entity holds a fixed investment in digital assets could be operated as a grantor trust/fixed investment trust (treated as a grantor trust), rather than as a RIC or a partnership, for federal income tax purposes.[347]

Commentary: Before 2024, digital asset fixed investment trusts were available to investors in the over-the-counter market and typically only available to accredited investors. Starting in 2024, the SEC first approved the listing of Bitcoin Exchange Traded Products (ETPs), followed thereafter by Ethereum ETPs. In its ruling the SEC noted its position that Bitcoin was a "non-security commodity."[348] Its subsequent approval of the Ethereum ETP would seem to suggest a similar position on Ethereum. As a result, the ETPs are not required to be registered under the Investment Company Act of 1940 and the Sponsors are not required to register with the SEC as an investment advisor. To date, each listed ETP has registered under the Securities Act of 1933.

An investment trust is treated as a trust, as opposed to a business entity when: (1) the trustee takes title of property for the purpose of protecting or conserving it for the beneficiaries; and (2) those beneficiaries do no more than accept the benefits thereof.[349] An investment trust will not however be recognized as a trust if there exists power under the trust instrument to vary the investments of the trust.[350] In the context of a digital asset investment trust, consideration needs to be given to the impact of occurrences such as a chain split.[351] A trustee provided with broad powers to reinvest chain split proceeds could cause the trust to be treated as business entity rather than a trust.[352]

Commentary: A typical digital asset investment trust agreement will require the Trustee to permanently and irrevocably abandon any Incidental Rights or IR Virtual Currency to which the Trust may become entitled to. When the Bitcoin protocol hard forked in 2017, the Trustee for the Grayscale Bitcoin investment Trust transferred the new tokens to the Spon-

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ating commodity exposure for the holder would not be qualifying income; presumably, because notes are per se securities as defined by 15 U.S.C. §80a-2).

[340] §851(b)(2)(A) ("other income (including but not limited to gains from options, futures, or forward contracts) derived with respect to [the RIC's] business of investing in" stock, securities, or currencies — typically, this includes income from hedges of qualifying assets).

[341] §851(b)(2).

[342] §851(b)(3)(B).

[343] *See, e.g.,* PLR 200647017, PLR 200741004, PLR 200743005 (generally, each holding that income derived by a RIC from its investment in wholly owned foreign corporation investing in commodities was qualifying income under §851(b)(2) without regard to whether income was subpart F income or from another source and without regard to whether income had been distributed).

[344] Reg. §1.851-2(b).

[345] §851(b), flush sentence, added by the Tax Reduction Act of 1975, Pub. L. No. 94-12, §602(a)(2) (the "1975 Act") (for inclusions under §951(a)(1)(A)(i)), and amended by the Tax Reform Act of 1986, Pub. L. No. 99-514, §1235(f)(3) (the "1986 Act") (for inclusions under §1293(a)).

[346] Reg. §1.851-2(b)(2)(iii).

[347] For the treatment of other investment vehicles, see the discussion of RICs at VI.B., above, and PTPs and the qualifying income exception to §7704 in VI.A.2., above.

[348] *SEC Statement on the Approval of Spot Bitcoin Exchange-Traded Products*, U.S. Securities and Exchange Commission (Jan. 10, 2024).

[349] Reg. §301.7701-4(a).

[350] Reg. §301.7701-4(c).

[351] See the discussion on chain forks and splits in VII.A.2., below.

[352] Rev. Rul. 78-149.

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sor (Grayscale Investments, acting as agent on behalf of the shareholders) who then sold the tokens and distributed the proceeds to the shareholders of record.[353]

Fixed investment trusts typically have a single class of ownership interest; however, they are permitted to have multiple classes of ownership so long as the trust was formed to facilitate direct investment in the assets of the trust and the existence of multiple classes is "incidental" to that purpose.[354]

In a digital asset fixed investment trust where a sponsor establishes the trust and then sells interests (certificates) to investors, the investors would be considered "grantors" (and the trust, a Grantor Trust) due to the investors retaining "power" over the income that causes them to be treated as owning the assets and income directly.[355] Grantor Trusts are disregarded for federal income tax purposes. Generally, an interest or share in a grantor trust represents a fractional undivided beneficial interest in the assets held by the trust.

Commentary: The Sponsor or Trustee of a Digital Asset ETP will contract with an unrelated party, referred to as an Authorized Participant (AP), a registered broker/dealer, who will assist in facilitating the creation and redemption of trust shares, and then list the shares on the secondary market to be bought and sold by investors. Digital Asset ETPs have a similar creation and redemption process to other exchange traded funds or products, except that Digital Asset ETPs are currently required to process the creations and redemptions with cash instead using the underlying digital asset (in-kind). The "cash requirement" has resulted in the need for a 3rd party (Trading Counterparty), unrelated to both the Sponsor and the AP, who transfers the digital asset back and forth to the Trust as needed.

While fixed investment trusts which qualify as grantor trusts are disregarded for federal income purposes, they would still be considered a "reporting" entity. However, Reg. §1.671-5 provides for a simplified reporting regime for Widely Held Fixed Investment Trusts (WHFIT).[356] A WHFIT is an arrangement where: (1) the Trust is considered a U.S. person; (2) the beneficial owners are treated owners under the Grantor Trust rules; and (3) at least one interest in the trust is held by a "middleman."[357] Under this reporting regime, the trust reports out items of income, expense, credits, and proceeds from asset dispositions. In addition to proceeds, the trust must provide sufficient information that "enables the beneficial owner to allocate, with reasonable accuracy, a portion of the owners basis in its trust interest to each sale or disposition."[358] With respect to proceeds from asset dispositions, there is an exception for reporting asset sales made to "effect a redemption."[359] There is also a de minimis exception which relieves the trustee from Form 1099-B reporting.[360] Furthermore, the digital asset reporting regulations, discussed in VIII., below, indicated that digital asset investment trusts subject to the WHFIT reporting regime would not be required to file Form 1099-DA, so long as the WHFIT is in compliance with the requirements of the rules in Reg. §1.671-5.[361]

Commentary: Digital Asset Fixed Investment Trusts, including ETPs, will likely always meet the de minimis exception, given that the Trust agreement will typically limit the Trust to selling underlying assets only for the purpose of covering Trust level expenses. This is done, in part, to ensure the "no power to vary" requirement is met. As a result, the shareholder will need to calculate their share of allocable income, expenses, and proceeds from sales, as well as determine their tax basis in underlying digitals assets, which they are deemed to own directly.

There are tax regimes or provisions which may apply to a digital asset ETP which would not be applicable to a direct investment in convertible virtual currencies. As set forth in V.E., above, BTC and ETH would likely be considered commodities for §475 purposes, but generally not covered by the definition of "security" in §475(c)(2). The beneficial interest in a widely held trust is however listed as a "security" for §475 purposes,[362] so the mandatory and/or elective mark-to-market regimes in §475 may be applicable. No definitive rule has been announced at this time.

Similarly, as set forth in V.J., above, while virtual currencies are generally not considered "securities" for purposes of §1259 and therefore not subject to the constructive sale rules, investments in certain trusts which are actively traded (within the meaning of §1092(d)(1)) may be considered "stock" subject to the constructive sale rules.

Lastly, as set forth in V.K., above, under current law, the wash sale rules under §1091 generally do not apply to convertible virtual currencies given that they are not typically considered "stock or securities." Section 1091 does not define "stock or securities" however, and there is no definitive guidance which would suggest publicly traded investment trusts would or would not be considered "stock or securities." Given the legal and regulatory similarities between a publicly listed stock and publicly listed interest in an investment trust however, it is reasonable to conclude that the wash sale rules could be applicable.

D. Passive Foreign Investment Companies (PFIC)/Offshore Funds

1. PFICs and Digital Assets

Digital assets take on many forms with an increasing number of functions and associated activities. Many of these may raise exposure to the passive foreign investment company (PFIC) tax rules.[363] Some of the common business models that may

[353] *See* Grayscale Bitcoin Trust (BTC) 2018 Grantor Trust Tax Information Statement.

[354] Reg. §301.7701-4(c).

[355] Reg. §1.671-3(a).

[356] Reg. §1.671-5(b)(22).

[357] A middleman is any Trust Interest Holder (TIH), other than a qualified intermediary, who holds an interest in a WHFIT on behalf of, or for the account of, another TIH, or who otherwise acts in capacity as an intermediary for the account of another person. Reg. §1.671-5(b)(10).

[358] Reg. §1.671-5(c)(2)(iv).

[359] Reg. §1.671-5(c)(2)(iv).

[360] Reg. §1.671-5(c)(2)(iv)(D)(1): Trust proceeds for a calendar year are not more than 5% of the net asset value of the trust as of the later of January 1 and the start-up date; or, if the trust chooses, the later of January 1 and the measure date.

[361] Reg. §1.6045-1(d)(9): Coordination with the reporting rules for WHFIT under Reg. §1.671-5.

[362] §475(c)(2)(B).

[363] Very generally, for tax law purposes, §1297 defines a PFIC as a foreign entity that either: (i) earns 75% or more of its gross income from nonbusiness

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raise PFIC issues simply due to the operational need to hold digital assets include foundations associated protocols, DAOs with governance tokens, DeFi protocols, staking node operators or staking as a service providers. With the unique and nuanced business models associated with digital assets, it is important to bring thoughtful consideration to the asset and income tests associated with PFICs.[364]

2. Taxation of Non-PFIC Investors

U.S. investors in foreign corporations that are not treated as controlled foreign corporations (CFCs) or PFICs are generally eligible for deferral with respect to their investments. That is, because they are not subject to the anti-deferral regimes applicable to shareholders of these two types of foreign corporations' tax regimes, U.S. investors are generally not required to include amounts in income with respect to non-CFC, non-PFIC foreign corporations until (if at all) such amounts are distributed.

3. Taxation of PFIC Shareholders

U.S. persons[365] who own stock in a foreign corporation that is treated as a PFIC as defined under §1297(a) are generally subject to the PFIC provisions of the Code set forth in §1291 through §1298. Section 1297(d) provides an exception for U.S. persons who are U.S. shareholders of a CFC. Under this exception, a foreign corporation that meets the criteria for being both a CFC and a PFIC will not be treated as a PFIC with respect to any U.S. shareholder who owns at least 10% of the vote or value of such foreign corporation's stock.[366] If a shareholder owns less than 10% of the vote and value of a foreign corporation that tests as a PFIC, the shareholder will be subject to the PFIC regime, as there is no minimum ownership requirement in order for the PFIC rules to apply to a U.S. holder.

A U.S. person who is a shareholder of a foreign corporation treated as a PFIC and does not affirmatively elect to be subject to an alternative PFIC taxation regime will be subject to the default §1291 excess distribution rules. Under the excess distribution regime, excess distributions and gains from the disposition of PFIC stock are generally: (i) treated as having been earned ratably over the shareholder's holding period; (ii) taxed at the highest tax rate applicable for each year; and (iii) subject to an interest charge.[367] These rules can apply even after the entity ceases being a PFIC; under the "once-a-PFIC, always-a-PFIC" rule, distributions and dispositions of interests in a foreign corporation that was a PFIC for any portion of the holding period of a U.S. investor are subject to the excess distribution rules of §1291.[368] Under proposed regulations, indirect dispositions of PFIC stock and transfers of PFIC stock that would otherwise qualify for nonrecognition treatment (such as reorganizations under §368(a)(1), spin-offs under §355, and contributions under §351 and §721) would subject the U.S. investor to the excess distribution rules.[369]

The starting point for evaluating PFICs includes situations with corporate stock and shareholders that normally allow for a rather straightforward determination. However, some digital asset structures merit careful consideration. For example, some DAOs have governance tokens that may take on characteristics of equity and could be associated with a non-U.S. entity (*e.g.,* foundation) that houses centralized activities. This situation may also exist with DeFi protocols whereby the users take control of tokens with equity-like characteristics in relation to an underlying liquidity pool. If one were to view the liquidity pool as an entity — what is its jurisdiction and how might the assets be viewed for PFIC testing purposes? Those who own these types of tokens or engage in these activities should give care to examine the treatment of the token and their relationship to the non-US entity to see if they could be deemed a shareholder of a foreign corporation.

To avoid the excess distribution regime, if a PFIC is willing to furnish U.S. tax reporting information, a U.S. investor is usually well advised to make a qualified electing fund ("QEF") election under §1295 upon the acquisition of PFIC stock. Under a QEF election, a shareholder is taxed annually on its pro rata share of the PFIC's ordinary earnings and net capital gain pursuant to §1293(a). The net capital gain component is eligible for long-term capital gains rates in the hands of a shareholder that is an individual.[370] A QEF election is required to be made by the tax return due date for the tax year to which it will apply;[371] only under limited circumstances do the regulations permit a QEF election to be made retroactively.[372] Although the QEF regime requires PFIC earnings to be included at the shareholder level in income currently, taxpayers can elect to defer the time for payment of tax with respect to undistributed earnings of a QEF.[373] The application of a QEF election could be complicated if applied to a DAO, DeFi protocol or other entity that may not if they don't have normal centralized functions or accounting that could be accessed on a regular basis by the deemed shareholder.

Section 1296 provides a second alternative to the excess distribution regime, an election to mark-to-market the PFIC stock at the end of each year. On the downside, mark-to-market gain is taxed as ordinary income.[374] However, on the positive side, the mark-to-market election allows shareholders to take mark-to-market losses as ordinary losses to the extent of prior mark-to-market inclusions.[375] The mark-to-market election is only available for stock that is either regularly traded on a specified exchange or comparable to regulated investment company shares redeemable at net asset value, limiting its availability.[376] For this purpose, the stock must be traded on either a national securities exchange that is registered with the Securities and Exchange Commission or the national market system estab-

operational activities (the income test); or (ii) if at least 50% of its assets are held in passive-generating income (the asset test).

[364] For a more in depth discussion of the general rules governing the treatment of PFIC shareholders, see 6300 T.M., *PFICs* (Foreign Income Series).

[365] As defined in §7701(a)(1).

[366] §1297(d)(1).

[367] §1291(a), §1291(c).

[368] §1298(b)(1); Prop. Reg. §1.1291-1(b)(1)(ii).

[369] Prop. Reg. §1.1291-3.

[370] *See* §1293(a)(1)(B).

[371] §1295(b)(2); Reg. §1.1295-1(e)(1).

[372] Reg. §1.1295-3.

[373] §1294.

[374] §1296(c)(1)(A).

[375] §1296(a)(2), §1296(c)(1)(B).

[376] §1296(e)(1).

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lished pursuant to §11A of the Securities Exchange Act of 1934 (15 U.S.C. 78f), or a foreign securities exchange that is regulated or supervised by a governmental authority of the country in which the market is located and which has the following two characteristics: (i) The exchange has trading volume, listing, financial disclosure, surveillance, and other requirements designed to prevent fraudulent and manipulative acts and practices, to remove impediments to and perfect the mechanism of a free and open, fair and orderly, market, and to protect investors; and the laws of the country in which the exchange is located and the rules of the exchange ensure that such requirements are actually enforced; and (ii) the rules of the exchange effectively promote active trading of listed stocks.[377] While there are tokens that trade on digital asset exchanges, this election may not apply to such digital assets (even if treated as stock), because of the type of exchange on which the digital assets are traded.

4. Determining PFIC Status

Generally, a foreign corporation will be classified as a PFIC if: (i) 75% or more of its gross income for a taxable year is passive (the income test); or (ii) 50% or more of the average value of its assets produce, or are held for the production of, passive income (the asset test).[378]

Section 1297(b) defines passive income as any income that would be foreign personal holding company income as defined in §954(c). However, passive income does not include any interest, dividends, rents, or royalties received or accrued from a related person (within the meaning of §954(d)(3)),[379] to the extent such amount is properly allocable to income of such related person that is not passive income.[380] Similarly, interest, rents or royalties received or accrued from look-though subsidiaries and partnerships, dividends from look-through subsidiaries, and distributions and distributive shares with respect to look-through partnerships are disregarded for purposes of the income test.[381] Therefore, when a company is engaged in digital asset-related activities, it may be necessary to consider the character of the income streams generated each year, whether payments or accruals were from a related person or look-through entity, and whether the company was actively involved in the generation of such income. Many DAOs and non-U.S. entities associated with decentralized protocols build their treasury of digital assets via fees that may be related to the intellectual property of a protocol. These streams of funds should be carefully examined to determine character and analyzed as to the application of §954(c). Further, the funds in the treasury are often used to award grants, provide incentives for users, or procure professional services. The gains triggered by using appreciated tokens in these transactions should similarly be analyzed for the income test. Other digital asset activities subject to these rules may include those who operate nodes or stake digital assets for a fee.

The asset test is applied on a gross basis (*i.e.,* no liabilities are considered),[382] and generally assets are measured using their value.[383] However, taxpayers may elect to use adjusted tax basis to measure assets for purposes of the asset test with respect to non-public foreign corporations; they are required to use adjusted basis for non-public CFCs.[384] One notable effect of using adjusted basis is that certain self-developed assets may have a tax basis of zero under U.S. federal income tax rules, and would thus not have any positive impact on the asset test.[385] This election may be beneficial for those non-U.S. entities that were part of an early stage token issuance whether they were the creator of the token or received it from another party.

An asset is passive for asset test purposes if it produces or is held for the production of passive income;[386] otherwise, the asset is considered non-passive. In applying the asset test, assets are generally measured at the end of each quarter and the values or adjusted bases (as appropriate) of the passive assets and total assets are each added up and then divided by four.[387] Digital assets held in treasury by a DAO, or other non-US entity may require careful consideration if there are actual or deemed shareholders involved.

For purposes of both the asset test and the income test, a foreign corporation that directly or indirectly owns at least 25% (by value) of the stock of another corporation or 25% of the interests of a partnership[388] (a "look-through entity") is treated as if it held the other corporation's assets and generated the other corporation's income in the same proportion as its ownership interest in the other corporation.[389] Thus, the application of the asset test and the income test to a foreign corporation may require a determination of the underlying assets and income of each 25%-owned corporation and partnership, as they are characterized as either passive or active at the look-through entity level. Once characterized, the assets and income of each look-through entity are combined with the assets and income of the foreign corporation being tested as a PFIC in order to arrive at the amounts of income and assets included in the income test and asset test computations. For the protocols that have centralized functions housed or represented by a non-U.S. entity, there may be U.S. personnel in a subsidiary bringing relevance to these special rules of the income and asset tests.

A fundamental issue that is routinely encountered in this area is whether a digital asset held directly or indirectly by a foreign corporation is a passive asset; if it is, the foreign corpo-

[377] Reg. §1.1296-2(c)(1).

[378] §1297(a).

[379] Section 954(d)(3) generally defines "related person" as an individual, corporation, partnership, trust, or estate that controls, or is controlled by, the foreign corporation, or a person that is a corporation, partnership, trust, or estate controlled by the same person or persons that control the controlled foreign corporation. "Control" is generally defined under §954(d)(3) as the ownership, directly or indirectly, of stock possessing more than 50 percent of the total voting power of all classes of stock entitled to vote or of the total value of stock of such corporation.

[380] §1297(b)(2)(C).

[381] Reg. §1.1297-2(c).

[382] Notice 88-2. While portions of Notice 88-22 were obsoleted in the preamble to PFIC regulations published in January 2021, this rule still applies. *See* Preamble to T.D. 9936.

[383] §1297(e)(1).

[384] §1297(e)(2).

[385] Because many development costs for certain self-developed assets are not required to be capitalized into basis under §263 or under Reg. §1.263(a)-4, taxpayers oftentimes choose to deduct these costs, resulting in a tax basis in such assets of zero for U.S. federal income tax purposes.

[386] §1297(a)(2).

[387] §1297(a)(2); Reg. §1.1297-1(d)(1).

[388] The regulations do not indicate what metric to use (e.g., capital, profits, liquidation rights) in quantifying partnership ownership for this purpose.

[389] *See* §1297(c); Reg. §1.1297-2(c), §1.1297-2(g)(3), §1.1297-2(g)(4).

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ration may test as a PFIC. And even if a digital asset is not currently generating passive income, it could be a passive asset if it is considered "held for the production of passive income."[390] Furthermore, digital assets associated with certain DeFi protocols may be property described in §954(c)(1)(B) that explicitly includes certain financial instruments as a passive asset. To the extent the digital asset at issue is considered a commodity for purposes of applying the foreign personal holding company income provisions,[391] net gains from transactions could be passive due to the application of §954(c)(1)(C) if no exception applies. Also, Notice 88-22 provides that "[c]ash and other current assets readily convertible into cash, including assets which may be characterized as the working capital of an active business" are passive assets.[392] While stablecoins and some of the more liquid digital assets may be readily convertible to cash[393], it is possible that NFTs and illiquid crypto are not considered readily convertible to cash for this purpose. Although in some cases they may be similar to currency, digital assets do not appear to qualify for a limited working capital exception set forth in Prop. Reg. §1.1297-1(d)(2), which by its terms is limited to "an amount of currency denominated in functional currency."

Under the right set of facts, it is possible that digital assets could be treated as a non-passive asset due to it being property held for sale to customers in the company's trade or business. Alternatively, it is possible that digital assets could qualify as property that would generate income excluded from foreign personal holding company income, and thus a nonpassive asset for asset test purposes, under the dealer property exception.[394]

[390] §1297(a)(2).

[391] See IX.B.2., below, for a discussion of the treatment of cryptocurrency as a commodity for purposes of §954(c).

[392] Note that Notice 88-22 references §904 for the definition of passive income, whereas the definition of passive income for PFIC testing purposes now cross-reference §954(c).

[393] Note in this regard that §2 of Notice 2014-21 describes cryptocurrency as being comparable to fiat currency and potentially being convertible: "Virtual currency that has an equivalent value in real currency, or that acts as a substitute for real currency, is referred to as 'convertible' virtual currency."

[394] *See* §954(c)(2)(C).

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VII. Selected Digital Asset Tax Issues

A. Chain Forks and Airdrops

Nodes and users of a blockchain must generally agree to follow certain rules or protocols to maintain the history of the blockchain and the integrity of its data. Protocols are occasionally changed to add new features, correct issues, or prevent potential issues from arising. In some cases, nodes and users disagree over changes to a protocol, with one group in favor of a revised protocol and the other group in favor of retaining the existing (legacy) protocol. In such situations, the blockchain can split, or "fork," into two different blockchains: one that continues to validate and add blocks to the existing blockchain following the legacy protocol and one that validates and adds blocks onto the existing blockchain using the revised protocol. Forks are generally classified as either "soft forks" or "hard forks" based upon the degree of compatibility of the legacy protocol and the revised protocol.

1. Soft Forks

In a soft fork, the new protocol is backwards-compatible with the legacy protocol. Thus, a node or user running the legacy protocol will recognize blocks added under the revised protocol. As a result, a soft fork does not split the blockchain ledger into two separate chains and does not create any new cryptocurrency or digital assets.

The IRS describes a soft fork as occurring "when a distributed ledger undergoes a protocol change that does not result in a diversion of the ledger and thus does not result in the creation of a new cryptocurrency."[395] Therefore, because soft forks do not result in the receipt of any new cryptocurrency, a soft fork does not result in any income to a taxpayer.[396]

2. Hard Forks

In a hard fork, the legacy protocol and the revised protocol are incompatible; a node running the legacy profile will not recognize the validity of blocks added under the revised protocol and a node running the revised protocol will not recognize the validity of blocks added under the legacy protocol.[397] As a result, the existing blockchain splits, or "forks," into two different blockchains. One blockchain continues to add blocks to the existing blockchain following the legacy protocol. The second blockchain uses the existing blockchain as a starting point but validates and adds blocks using the revised protocol and thereby creates a second blockchain.[398]

Following a blockchain hard fork, a wallet with the original cryptocurrency will automatically have equal amounts on both the old and the new blockchains. For example, the Bitcoin Cash hard fork occurred on August 1, 2017, which resulted in a new blockchain with "bitcoin cash" as its native cryptocurrency. A person owning unspent BTC that were received prior to August 1, 2017, controlled a corresponding number of bitcoin cash immediately after the fork.[399]

The IRS first addressed forks in its FAQs, which expand upon Notice 2014-21 and apply to virtual currency held as a capital asset, and in Rev. Rul. 2019-24.[400] In the FAQs, the IRS describes a hard fork as follows:

> A hard fork occurs when a cryptocurrency undergoes a protocol change resulting in a permanent diversion from the legacy distributed ledger. This may result in the creation of a new cryptocurrency on a new distributed ledger in addition to the legacy cryptocurrency on the legacy distributed ledger.[401]

The IRS expands upon this definition in Rev. Rul. 2019-24, explaining:

> A hard fork is unique to distributed ledger technology and occurs when a cryptocurrency on a distributed ledger undergoes a protocol change resulting in a permanent diversion from the legacy or existing distributed ledger. A hard fork may result in the creation of a new cryptocurrency on a new distributed ledger in addition to the legacy cryptocurrency on the legacy distributed ledger. Following a hard fork, transactions involving the new cryptocurrency are recorded on the new distributed ledger and transactions involving the legacy cryptocurrency continue to be recorded on the legacy distributed ledger.

The IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* and Rev. Rul. 2019-24 conclude that a taxpayer whose cryptocurrency goes through a hard fork but does not receive any new cryptocurrency, either through an airdrop or otherwise, does not have gross income resulting from the fork.[402]

Rev. Rul. 2019-24 addresses two factual situations. Situation 1 describes a hard fork following which the taxpayer does not receive new cryptocurrency. Specifically, the revenue ruling describes:

> Situation 1: *A* holds 50 units of *Crypto M*, a cryptocurrency. On *Date 1*, the distributed ledger for *Crypto M* experiences a hard fork, resulting in the creation of *Crypto N*. *Crypto N* is not airdropped or otherwise transferred to an account owned or controlled by *A*.

Citing §61 and explaining that *A* does not have an accession to wealth because *A* did not receive units of the new cryptocurrency from the hard fork, the IRS ruled that the taxpayer in Situation 1 did not have gross income.

Commentary: The situation described in IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,*

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[395] Jake Frankenfeld, *Soft Fork: What it is, How it Works in Cryptocurrency,* Investopedia (Sept. 18, 2023).

[396] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-30. For a discussion of upgrades to digital assets or protocols, see VII.D., below.

[397] Jake Frankenfeld, *Hard Fork: What It Is in Blockchain, How It Works, Why It Happens,* Investopedia (May 25, 2022).

[398] For a definition of "hard fork," see the Glossary of Terms in the Worksheets, below.

[399] Nathan Reiff, *All About the Bitcoin Cash Hard Fork,* Investopedia (Mar. 2, 2022).

[400] *See* IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-22, 23, 24, 25, 30. See III.D., above, containing additional discussion on the IRS FAQs.

[401] IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions,* Q&A-22.

[402] The tax consequences of cryptocurrency received from an airdrop following a hard fork is discussed in VII.A.4., below.

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Q&A-22 and in Situation 1 of Rev. Rul. 2019-24 is very rare. Taxpayers holding cryptocurrency on the pre-fork blockchain generally have equal amounts of the old and new blockchain cryptocurrencies following a fork.

The IRS ruled in Situation 2 that the taxpayer had gross income as a result of the airdrop following a hard fork. The ruling describes an airdrop as "a means of distributing units of a cryptocurrency to the distributed ledger addresses of multiple taxpayers." The ruling further states that a hard fork followed by an airdrop "results in the distribution of units of the new cryptocurrency to addresses containing the legacy cryptocurrency."

Regarding Situation 2, the revenue ruling provides the following:

> Situation 2: *B* received a new asset, *Crypto S*, in the airdrop following the hard fork; therefore, *B* has an accession to wealth and has ordinary income in the tax year in which the *Crypto S* is received.[403] B has dominion and control of *Crypto S* at the time of the airdrop, when it is recorded on the distributed ledger, because *B* immediately has the ability to dispose of *Crypto S*. The amount included in gross income is $50, the fair market value of *B*'s 25 units of *Crypto S* when the airdrop is recorded on the distributed ledger. *B*'s basis in *Crypto S* is $50, the amount of income recognized.[404]

Commentary: Neither Situation 1 nor Situation 2 describes any of the major blockchain forks, such as Bitcoin Cash, Bitcoin Gold, or Ethereum. For example, as discussed above, taxpayers holding pre-fork BTC would have had an equal number of spendable BCH; however, BCH was never airdropped (based on the definition in the ruling or as that term is colloquially or otherwise understood) nor was there a transfer or distribution of BCH to addresses on the Bitcoin "distributed ledger." Bitcoin Cash only references the pre-fork transaction history of Bitcoin. A party holding BTC in a self-custodied fashion would need to have the technological wherewithal and take action to access the Bitcoin Cash blockchain with their private keys in order to exhibit control over the BCH. Any taxpayer understanding these major blockchain forks would reasonably conclude that neither Situation 1 nor Situation 2 describes any of the Bitcoin or Ethereum forks.

In addition, Rev. Rul. 2019-24 seems to allow a third-party agent (an exchange is used as an example in the ruling) to defer realization of airdrop coins on behalf of beneficial owners if the agent delays crediting the coins to the accounts of beneficial owners. In general, a taxpayer is not permitted to defer income realization through the use of agents or nominees.[405]

The IRS has subsequently concluded in a chief counsel advice memorandum that taxpayers who received BCH, a new currency, as a result of the Bitcoin hard fork on August 1, 2017, realized gross income under §61 from the hard fork because these taxpayers had an accession to wealth.[406]

In CCA 202114020, the IRS gave two detailed examples of income recognition in the case of the Bitcoin Cash fork:

> Situation 1: A had sole control over the private key to a distributed ledger address that, as of August 1, 2017, at 9:16 a.m., EDT, held one unit of Bitcoin. Following the hard fork, A's distributed ledger address continued to hold one unit of Bitcoin while also holding one unit of Bitcoin Cash. At that time, A had the ability to initiate a transaction to dispose of some or all of A's Bitcoin Cash holdings. A received one unit of Bitcoin Cash at the time of the August 1, 2017, hard fork and had dominion and control over that unit as evidenced by A's ability to sell, exchange, or transfer the Bitcoin Cash. A has ordinary income in the 2017 tax year equal to the fair market value of the Bitcoin Cash as of August 1, 2017, at 9:16 a.m., EDT. A can determine the Bitcoin Cash's fair market value using any reasonable method, such as adopting the published price value at a cryptocurrency exchange or cryptocurrency data aggregator.[407]
>
> Situation 2: B is a customer of CEX, a cryptocurrency exchange that provides hosted wallet services. As of August 1, 2017, at 9:16 a.m., EDT, B owned one unit of Bitcoin, which was held by CEX in a hosted wallet. CEX had sole control over the private key to a distributed ledger address that, as of August 1, 2017, at 9:16 a.m., EDT, held 100 units of Bitcoin. According to CEX's off-chain, internal ledger, one unit of the 100 units of Bitcoin was owned by B. B did not have dominion and control over any Bitcoin Cash at the time of the hard fork, and therefore did not receive any income from the hard fork at that time. On January 1, 2018, at 1:00 p.m., EDT, CEX initiated support of Bitcoin Cash, allowing B — for the first time — to sell, transfer, or exchange B's one unit of Bitcoin Cash. B has ordinary income in the 2018 tax year equal to the fair market value of the Bitcoin Cash as of January 1, 2018, at 1:00 p.m., EDT. B can determine the fair market value by consulting CEX's pricing data. If CEX lacks such information, B can use any other reasonable method.[408]

3. *Commentary on the IRS Rulings on Chain Forks*

a. *Timing of Income from a Fork*

While the IRS asserts that income may be realized from a fork, it need not be realized at the time of the fork, or, possibly, at any time for federal income tax purposes.[409] A taxpayer controlling the credentials to a blockchain's pre-fork cryptocurrency generally controls a corresponding number of the new and old blockchain cryptocurrencies after the fork. Thus, for example, a taxpayer having 10 BTC prior to the Bitcoin Cash fork would have 10 bitcoin cash ("BCH"), along with its original

[403] *See* §61, §451.

[404] *See* §61, §1011, and Reg. §1.61-2(d)(2)(i).

[405] *Lucas v. Earl*, 281 U.S. 111 (1930); *Helvering v. Horst*, 311 U.S. 112 (1940); *Hicks v. United States*, 314 F.2d 180 (4th Cir. 1963). *See also Fidelity-Philadelphia Trust Company*, 23 T.C. 527 (1954).

[406] CCA 202114020 (references to Rev. Rul. 2019-24 and Reg. §1.451-2).

[407] CCA 202114020, Situation 1.

[408] CCA 202114020, Situation 2.

[409] *See generally*, Jim Calvin, *Practitioner Commentary: When (and If) Income Is Realized from Bitcoin Chain-Splits*, 58 TMM 479 (Jan. 4, 2018).

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10 BTC, after the fork. No payment of money or exchange of property occurs, nor does the taxpayer give up any rights.[410]

Users are not required to take action upon the occurrence of a fork, and, generally, a fork can create significant risks which must first be evaluated by users, wallet developers, exchanges, and other businesses. Many take no action until the risks have been sufficiently evaluated and mitigated, and some may never take any action to claim the fork coins. In certain cases, fork coins should be regarded as unwanted property that is never claimed by taxpayers.[411] The most often cited risks are security, generally, and replay attacks, specifically.[412] A replay attack occurs if a transaction is broadcasted on both chains. In such a case, transferring a fork coin results in transferring the corresponding pre-fork coin, or vice versa — in other words, both coins are unintentionally transferred in a single transaction meant only to send the fork coins. Transactions are irreversible, and where no or uncertain replay protection is provided, a taxpayer would need to carefully evaluate and activate precautions to prevent replay attacks.

A taxpayer who uses the cash receipts and disbursements method of accounting ordinarily must include items of gross income in the tax year when actually or constructively received.[413] However, "where a taxpayer receives 'unsolicited' property that is otherwise includible in gross income, the IRS has determined that the property is includible in income only when the taxpayer manifests an ascension to wealth and acceptance of the property by exercising dominion and control over such property."[414]

The IRS has ruled that taxable income is realized if the owner of a pre-fork coin exercises dominion and control over the corresponding fork coin. According to the ruling, the amount of income realized will be equal to the value of the fork coins at that time.

Cryptocurrency is treated as property for federal income tax purposes.[415] Fork coins are unsolicited property that may be claimed by a taxpayer if he has sufficient credentials; however, nothing compels him to claim these coins immediately or ever. Further, the most prudent course of action is often no action at all until the risks associated with the fork have been sufficiently evaluated and mitigated.

Fork coins are not gifts. While a pre-fork coin owner may be able to claim fork coins at no cost, these were never intended to be a gift and cannot be excluded from income on that basis.[416] Fork coins are not found property. Pre-fork coin owners know, or should know, and may even anticipate that by holding the pre-fork coin they will be entitled to fork coins; thus, these are not found property.[417]

The property is, however, an economic gain that will at some point in time result in realized income. An economic gain over which the taxpayer exercises dominion and control is includible in gross income when realized.[418] Unsurprisingly, this is not the only instance where taxpayers receive property or rights to property without payment. The IRS's longstanding position on when such rights and property are realized as income has varied in different circumstances.[419] Relevant case law has been less focused on the timing of a taxpayer's gross income than on the question of whether such property is includible in gross income at some point in time.[420]

In one line of authorities, in both published and private rulings, rights received by a taxpayer without payment to purchase shares in an unrelated corporation were not treated as taxable upon receipt.[421]

In Rev. Rul. 63-225, a taxpayer, by virtue of being a shareholder of M corporation, received from an unrelated corporation, N, at no cost to himself, rights to purchase debentures and common stock of N corporation.[422] The taxpayer in the ruling did not hold the rights as a dealer in options and he sold the rights immediately. The debentures and stock would have been capital assets in his hands if he had exercised the rights. The taxpayer was treated as not realizing any taxable income up-

[410] Coins corresponding to pre-fork cryptocurrencies will be referred to as "fork coins."

[411] *See* Adrian Zmudzinski, *Two Alleged Ethereum 'Scam Forks' Appropriating Users' Private Keys, Report Finds,* CoinTelegraph (Jan. 11, 2019).

[412] *See, e.g.*, Jimmy Song, *Replay Attacks Explained*, Bitcoin Tech Talk (Aug. 21, 2017).

[413] Reg. §1.451-1(a).

[414] TAM 8109004; TAM 8109003. *See also* Rev. Rul. 70-498 (book reviewer must include in his gross income the value of unsolicited books received from publishers at the time he donated the books to a charitable organization and for which a charitable deduction was taken), *superseding* Rev. Rul. 70-330 (mere retention of unsolicited books was sufficient to cause them to be gross income), Rev. Rul. 63-225; GCM 36639 (Mar. 22, 1976) ("[I]t is clearly the position of the Service that the mere receipt of [free samples] does not constitute income. Rather, the inclusion of the value of the [free samples] in income is dependent on the taxpayer accepting them as his own.").

[415] Notice 2014-21, §4, Q&A-1 ("virtual currency is treated as property").

[416] *Commissioner v. Duberstein*, 363 U.S. 278, 285 (1960) (a gift, in the statutory sense, proceeds from a detached or disinterested generosity out of affection, respect, admiration, charity, or like impulses).

[417] *See* Joseph M. Dodge, *Accessions to Wealth, Realization of Gross Income, and Dominion and Control: Applying the 'Claim of Right Doctrine' to Found Objects, Including Record-Setting Baseballs*, 4 Fla. Tax Rev. 725 (2000).

[418] *Commissioner v. Glenshaw Glass Co.*, 348 U.S. 426 (1955).

[419] Rev. Rul. 63-225; Rev. Rul. 70-498. *See also* GCM 36639 (Mar. 22, 1976) ("[I]t is clearly the position of the Service that the mere receipt of [free samples] does not constitute income. Rather, the inclusion of the value of the [free samples] in income is dependent on the taxpayer accepting them as his own.").

[420] *Haverly v. United States*, 513 F.2d 224, 226 (7th Cir. 1975) ("intent to exercise complete dominion over unsolicited samples is demonstrated by donating those samples to a charitable institution"); *Holcombe v. Commissioner*, 73 T.C. 104, 117–18 (1979) ("We therefore are not required to decide the issue with respect to *when* nongift items which a taxpayer receives without cost and which he later donates to a charity become income to him") (emphasis added).

[421] Rev. Rul. 63-225; GCM 32441 (Nov. 19, 1962) (concurring with Rev. Rul. 63-225). *Compare* PLR 8821082, PLR 8811034, PLR 8801053 (citing Rev. Rul. 63-225 to hold that certain account holders did not recognize income upon receipt of subscription rights distributed without payment as part of a conversion of mutual savings banks or associations), GCM 7246 (1929) (same rationale for purposes of realization; however, character of income was ordinary based on then-current law) *with* Rev. Rul. 70-521 (distribution of share purchase rights by a corporation to its shareholders was realized under §301); GCM 37452 (Mar. 9, 1978) (dominion and control were presumed to occur when unilaterally extended warrants were exercised after the expiration of the original warrants, sold, exchanged or otherwise disposed of (*e.g.*, by gift or charitable contribution)).

[422] N and M held assets received from the liquidation of a third corporation, P. N made a public offering of debt and stock and issued purchase rights to shareholders of M. The funds raised by N financed the purchase of the P property held by M. P was not related to M, and neither P nor M held stock in N. Arguably, there is a distinction between the expectations of the taxpayer in Rev. Rul. 63-225 and those of a pre-fork coin holder. While shareholders typically do not acquire shares anticipating the receipt of property from an unrelated corporation, a pre-fork coin holder might anticipate or, at least, should not consider a fork unusual.

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on his receipt of the rights from N corporation, and his basis in such rights, for determining gain or loss upon their sale, was zero. The IRS held that the entire proceeds received from the sale of the rights constituted short-term capital gain under §1234.[423]

b. Unsolicited Property

A series of rulings and cases addressed the tax consequences to taxpayers of receiving free samples. The first ruling on the taxability of free samples, Rev. Rul. 70-330, conditioned taxability on a free sample being "accepted and retained by the taxpayer" rather than returned. As such, free book samples for possible review by the taxpayer were not excludible from gross income, and, in view of the broad scope of §61(a), the value of the free samples received and accepted was to be includible in gross income.[424] Soon thereafter, Rev. Rul. 70-330 was superseded by Rev. Rul. 70-498, which held that the fair market value of unsolicited free book samples was includible in the taxpayer's gross income where the taxpayer donated to the books to a charitable organization and deducted the fair market value of the books as a charitable contribution in the tax year they were received. The factual difference between the two rulings is that in Rev. Rul. 70-498 the taxpayer gifted all of the books received to a charitable organization.

In a General Counsel Memorandum (GCM),[425] the IRS noted that the files underlying both Rev. Rul. 70-330 and Rev. Rul. 70-498 make it clear that the IRS considered the value of the books to be income to the taxpayer only if they were "accepted" by the taxpayer. Rev. Rul. 70-330 states that the books were "accepted" by the taxpayer. Rev. Rul. 70-498 states that the taxpayer donated the books to charity. Both this GCM and O.M. 17878[426] stated that:

> This change in presentation was made to avoid setting forth in detail those actions that would constitute acceptance. The donation of the books by the taxpayer and the taking of the charitable deduction establishes "acceptance" for Rev. Rul. 70-498, *supra.* The change in no way alters the rationale of the earlier ruling as to the necessity of acceptance.

O.M. 17878 considered an elementary school teacher who served without pay on a board that reviewed children's textbooks and made recommendations as to those books which were most suitable for use in the state school system. Sample books were sent to the taxpayer much as review books are sent to other book reviewers. She gave the books to various charities and claimed charitable deductions. The IRS concluded that the books received by the taxpayer were includible in gross income under the same reasoning as in Rev. Rul. 70-498 and stated that Rev. Rul. 70-498 conditioned the inclusion of the value of books in gross income on the "acceptance" of the books.[427] The GCM added that, "in addition to the donation of the books to charity in Rev. Rul. 70-498," acceptance includes "the retention of the books in the taxpayer's own library, or the sale of the books." A taxpayer may "avoid acceptance and inclusion of the value of the books in gross income by discarding the books or turning them over to his employer."

In summary, the IRS's initial position in its published rulings was that a taxpayer who received the unsolicited books realized gross income upon taking possession, but the superseding ruling instead described gross income realization as occurring where the taxpayer both receives and disposes of the books (i.e., in a charitable contribution). In that respect, Rev. Rul. 70-498 was consistent with Rev. Rul. 63-225 discussed above. Interestingly, the language in GCM 36639 described above seemed both: (i) to confirm that Rev. Rul. 70-498 superseded Rev. Rul. 70-330 to avoid stating that taking possession of the books resulted in the realization of gross income; and (ii) to contend that a taxpayer could realize gross income by retaining the books in its own library.

The leading case on the taxability of free samples is *Haverly v. United States.*[428] Like the taxpayer in Rev. Rul. 70-498, Mr. Haverly received unsolicited sample copies of textbooks for his personal retention or to dispose of by whatever means he wished. His wish was to donate the samples to charity. The samples were provided to give the taxpayer an opportunity to examine the books and determine whether they were suitable for the instructional unit for which he was responsible. The publishers did not intend that the books serve as compensation. Mr. Haverly donated the books to charity, and he claimed a charitable deduction under §170. The Second Circuit stated:

> The receipt of textbooks is unquestionably an "accession to wealth." Taxpayer recognized the value of the books when he donated them and took a $400 deduction therefor. Possession of the books increased the taxpayer's wealth. Taxpayer's receipt and possession of the books indicate that the income was "clearly realized." Taxpayer admitted that the books were given to him for his personal retention or whatever disposition he saw fit to make of them. Although the receipt of unsolicited samples may sometimes raise the question of whether the taxpayer manifested an intent

[423] *See* GCM 32441 (Nov. 19, 1962) (compare Rev. Rul. 63-225, which states that the rights were sold immediately to the original draft, which had stated the rights were held for less than the long-term holding period prior to sale); GCM 37452 (Mar. 9, 1978) (recommending that the holding of Rev. Rul. 63-225 be modified to indicate that ordinary income is recognized when dominion and control are exercised over such rights; note, however, Rev. Rul. 63-225 has not been modified as recommended).

[424] Rev. Rul. 70-330.

[425] GCM 36639 (Mar. 22, 1976). The GCM considered a proposed revenue ruling related to the receipt of copies of the bound edition of the Congressional Record without charge by a member of Congress. Members of Congress and various other government officials were, by law, furnished gratuitously bound editions of the Congressional Record. The Congressman accepted all copies, taking possession of them at the time of delivery, and he used all copies in performing his Congressional duties with the exception of one that was placed in storage. He donated the copy of the Congressional Record he had placed in storage to a charitable organization. The GCM disagreed with the holding in the proposed ruling that the member of Congress was required to include in his gross income the value of all copies of the bound edition of the Congressional Record. It found that the receipt of the copies of the Congressional Record was analogous to the receipt of unsolicited samples of books in Rev. Rul. 70-498. The GCM concluded that the facts in the proposed ruling describing the taxpayer's use of the copies in the year received — the use of the copies in performing his Congressional duties and the placing of one copy in storage — did not manifest his acceptance of the copies as his own.

[426] (June 15, 1973) (as quoted in GCM 36639).

[427] GCM 36639 (Mar. 22, 1976).

[428] 513 F.2d 224 (7th Cir. 1975), cert. denied, 423 U.S. 912 (1975). *See also Holcombe v. Commissioner*, 73 T.C. 104 (1979).

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> to accept the property or exercised "complete dominion" over it, there is no question that this element is satisfied by the unequivocal act of taking a charitable deduction for donation of the property.[429]

The court then held that "when the intent to exercise complete dominion over unsolicited samples is demonstrated by donating those samples to a charitable institution and taking a tax deduction therefor, the value of the samples received constitutes gross income."[430] Under the holding of the case, the tax year in which the books were includible in gross income was the year in which they were donated rather than the year in which they were received. The court noted its conclusion was consistent with Rev. Rul. 70-498.

Following these cases and rulings, the IRS addressed the receipt of complimentary sporting event tickets by taxpayers in two technical advice memoranda. In the two memoranda, the IRS advised that the fair market value of all complimentary tickets received by a taxpayer were includible in income in the year in which he demonstrated intent to exercise dominion and control. In the first memorandum, the fact that the taxpayer had given away most, but not all, of the complimentary tickets demonstrated his intent to exercise dominion over all of the tickets.[431] In the other memorandum, the IRS treated the transfer of any of one series to a third party and the personal use of any of the other series as demonstrating an intent to exercise dominion over all of the tickets.[432]

The memoranda considered the receipt of unsolicited tickets by a taxpayer (T) who was on a county board of supervisors responsible for oversight of the operation of a stadium owned by the county. The principal tenants of the stadium were two professional sports franchises, M and N. Both sports franchises had a lease agreement with the county allowing the use of the stadium for the exhibition of games in their respective sports. It had been a longstanding business practice of M and N to furnish complimentary season tickets to members of the board of supervisors and other county officials. In TAM 8109004, the fair market value of the unsolicited tickets was includible in gross income in the tax year T demonstrated his intent to exercise complete dominion over them. During 1976, T received two season tickets from M and two season tickets from N. T donated the M season tickets to a charitable organization and kept the N season tickets for his personal use. The transfer of any M tickets to a third party and the personal use of any N tickets demonstrated T's intent to exercise dominion over all of the season tickets of each franchise. In TAM 8109003, the IRS advised that the fair market value of the unsolicited tickets was includible in gross income in the tax year T demonstrated his intent to exercise complete dominion over them. During 1976, T received two season tickets from M and two season tickets from N. T gave most of the M tickets to his children and gave the N season tickets to a priest for his personal use. The transfer of any M tickets to his children and any N tickets to the priest demonstrated T's intent to exercise dominion over all the season tickets of each franchise.

The common thread in these cases and rulings on the receipt of unsolicited property was that taxpayers were consistently held to have realized gross income upon their use or disposition of the property received. It was at that time the taxpayers were regarded as having dominion and control over the property. Unlike in Rev. Rul. 2019-24, the cases and rulings were not decided as if acquisition of the right to dispose of the property determined the timing of the taxpayer's realization of gross income.

4. Airdrops

A cryptocurrency airdrop is a marketing tool that enriches the wallet of a member on a blockchain with additional coins in a bid to promote adoption.[433] As noted above, Rev. Rul. 2019-24 addresses two situations, the first of which describes a hard fork where the taxpayer does not receive new cryptocurrency. Situation 2 describes an airdrop of cryptocurrency following a hard fork. The combination of events in Situation 2 is rare and unusual. Experts describe hard forks and airdrops as being distinct and unrelated terms rather than sequentially related events.[434]

Commentary: Tokens acquired as a result of an organic hard fork of a blockchain's supporting infrastructure are referred to in this Portfolio as "fork coins" or "fork tokens" whereas airdropped tokens are generally targeted distribution of a governance token or utility token associated with a decentralized application.

B. Mining

Some blockchains relying on proof-of-work consensus mechanisms use a process generally known as mining to verify and add information to their blockchains.[435] Although each blockchain follows its own rules and procedures, the mining process generally works as follows. New transactions or other data are broadcast to all nodes in the blockchain's network. Each node collects the new transactions into blocks and works to solve a computationally difficult proof-of-work task for its block. When a node satisfies the proof-of-work requirement, it broadcasts the block with the proof of work to the other nodes. Each of these nodes independently determines whether all transactions in the block are valid and have not already been spent. Nodes express their acceptance of the proposed block by working to add an additional block onto the proposed block, thereby incorporating the proposed block into the ongoing blockchain.[436]

Each new block in a proof-of-work blockchain is cryptographically locked onto the existing blockchain using a hash function that makes it prohibitively difficult to alter the con-

[429] *Haverly v. United States*, 513 F.2d at 226–27.

[430] *Haverly v. United States*, 513 F.2d at 226.

[431] TAM 8109003 (gift by the taxpayer of one set of season tickets and most of a second set).

[432] TAM 8109004.

[433] See the Glossary of Terms in the Worksheets, below, for the definition for "airdrop."

[434] *See* Peter Van Valkenburgh, *What are cryptocurrency forks, airdrops, and what's the difference?* Coin Center (Oct. 9, 2010) (providing a thorough discussion of forks and airdrops).

[435] For a definition of "mining," see the Glossary of Terms in the Worksheets, below.

[436] Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (Oct. 31, 2008), Jake Frankefield, *Bitcoin Mining,* Investopedia (Apr. 26, 2023).

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tents of the updated blockchain without detection.[437] The new block also contains evidence that the proof-of-work requirement has been satisfied in connection with the addition of the new block. This proof typically takes the form of a nonce number proving that a difficult computational problem posed by the protocol has been solved.[438] The protocol makes periodic adjustments to the difficulty level based upon operating conditions of the network.

The mining process is in part collaborative because all node operators participate in the validation of new transactions and data by consensus and the maintenance of the blockchain. The mining process is also strongly competitive because only one "miner" (or mining pool) is ultimately allowed to add (hash) the new block to the existing blockchain and claim the rewards for the successful addition. The rewards come in two forms.[439] First, the successful miner receives a block reward in the form of newly created (minted) units of the cryptocurrency that is native to the blockchain; the amount of the block reward is determined by the blockchain protocol.[440] Second, the successful miner receives any transaction fees that may have been offered by transacting parties to incentivize the prompt inclusion of their transactions or data in the block.[441] Many proof-of-work protocols adjust the level and composition of mining rewards over time and as circumstances change.[442]

A miner on a proof-of-work blockchain differs from a staker on a proof-of-stake blockchain (as discussed below) in several respects. First, most proof-of-work blockchains do not require a miner to own or control any of the native cryptocurrency of the blockchain to engage in mining operations. Second, if the miner does own the native currency, the mining activities do not limit the ability of the miner to transact these amounts while conducting mining operations and do not expose the miner to any potential loss of these amounts. Finally, the amount of the native cryptocurrency held by the miner has no impact upon the amount of mining rewards received.

Mining has become a capital-intensive and highly competitive business. To succeed, miners are required to invest substantial resources in mining equipment, electricity, and maintenance costs. The increasing difficulty of the proof-of-work problems has generally required miners to switch to computers and servers specifically designed for mining to remain competitive. The combination of high fixed costs and unpredictable rewards has encouraged miners to join together in mining pools where they pool the expenses of computational power and share its rewards.[443]

Notice 2014-21, Q&A-8, provides that when a taxpayer successfully mines virtual currency, "the fair market value of the virtual currency on the date of receipt is includable in gross income."[444] In addition, an individual who mines BTC as a trade or business is subject to self-employment tax on the income derived from the activity;[445] however, mining by the individual must constitute a trade or business and not be undertaken by the taxpayer as an employee. In such a case, the net earnings from self-employment — generally, gross income derived from carrying on a trade or business less allowable deductions — resulting from those activities constitute self-employment income and are subject to the self-employment tax.[446] The activities that generate mining income, and subsequent disposition of the bitcoin received for mining, can raise questions regarding the proper sourcing and character for foreign and state tax purposes which are not addressed by the Notice.

Commentary: Although Notice 2014-21, Q&A 8, implies that a successful miner takes mining rewards into account as gross income on "the day of receipt," the more technically correct answer is that the miner determines the timing of income recognition under the principles of §451 and Reg. §1.451-1. Thus, a miner using the cash receipts and disbursements method of accounting recognizes mining rewards when they are actually or constructively received, which is consistent with Notice 2014-21, Q&A 8.

Mining rewards are generally received when the block containing such rewards is successfully added to the blockchain and the rewards become subject to the control of the miner.[447] Some proof-of-work blockchains have special provisions that prohibit successful miners from spending their mining rewards until the rewards have been confirmed or matured by the successful addition of a certain number of blocks to the blockchain.[448] In such situations, the better answer would be that the miner receives (and recognizes gross income) only when the restrictions on the rewards expire. In practice, the practi-

[437] Jake Frankenfield, *What Is a Hash? Hash Functions and Cryptocurrency Mining*, Investopedia (May 28, 2023).

[438] Jake Frankenfield, *Nonce: What It Means and How It's Used in Blockchain*, Investopedia (Nov. 22, 2023).

[439] In Bitcoin, mining rewards (both the newly minted bitcoin and any transaction fees) are credited to the successful miner in the "coinbase transaction," which is the first transaction in the newly added block. The phrase is sometimes used as a generic term for mining rewards on any proof-of-work blockchain, and it should not be confused with the Coinbase Inc. that provides transaction services for digital assets. See the definition of "Coinbase transaction" in the glossary on the *bitcoindeveloper* website.

[440] The term "block reward" originates with Bitcoin. Other blockchains use different terminology; Ethereum, for example, uses the term "ether." Jake Frankenfield, *Block Reward: Definition, How They Provide Incentive, and Future*, Investopedia (Aug. 18, 2023).

[441] The term "miner fees" originates with bitcoin. Other blockchains use different terminology; Ethereum, for example, uses the term "gas." Jake Frankenfield, *Block Reward: Definition, How They Provide Incentive, and Future*, Investopedia (Aug. 18, 2023).

[442] Bitcoin, for example, reduces the mining reward by 50% after every 210,000 block are mined. *See How are bitcoins created?* Bitcoin. As another example, staking rewards on Solana are determined by an annual inflation rate, which began at 8% and reduces by 15% per annum until the lower threshold of 1.5% is reached. *See Inflation Schedule*, Solana Compass.

[443] *See Pooled mining*, Bitcoin Wiki (June 23, 2020).

[444] Notice 2014-21, §4, Q&A-8. *See also* §83(a) (a property transfer is subject to §83 if the property is transferred to any person other than the service recipient — stated differently, Bitcoin holders are not required to transfer bitcoin directly to miners in order for §83 to apply to the mining reward).

[445] Notice 2014-21, §4, Q&A-9. The IRS reminded taxpayers that, for purposes of the cryptocurrency question at the top of the Form 1040 and Form 1040-SR, a transaction involving virtual currency includes, but is not limited to, the "receipt of new virtual currency as a result of mining and staking activities." IRS News Release IR-2022-45 (Mar. 1, 2022).

[446] Notice 2014-21, §4, Q&A-9.

[447] For an explanation of control and dominion, see the *Chain Forks* discussion in VII.A., above.

[448] In bitcoin, for example, mining rewards earned (that are credited in coinbase transactions) cannot be spent until 100 additional blocks have been successfully added to the blockchain, which serves to confirm the rewards. This phenomenon is sometimes described as "coinbase maturity." *See Bitcoin Consensus rules and their enforcement* (2023).

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cal significance of this refinement will heavily depend upon the time required to confirm or mature the mining rewards.[449]

A miner using an accrual method of accounting should recognize gross income from mining when the all events test is satisfied, that is, when all the events have occurred which fix the right to receive such mining rewards and the amount of the rewards can be determined with reasonable accuracy.[450] For miners with an applicable financial statement, the all events test is treated as satisfied no later than when the mining reward is taken into income as revenue on the applicable financial statement.[451]

C. Staking

Blockchains relying on proof-of-stake consensus mechanisms use a process generally known as staking to verify and add information to their blockchains.[452] Although each blockchain follows its own rules and procedures for staking, the process generally works as follows.[453] New transactions or other data are broadcast to all nodes in the blockchain's network. Certain nodes, known as validators, assume responsibility for validating the new information before it is added to the blockchain. To qualify as a validator, a node must generally possess a certain minimum amount of the native cryptocurrency of the blockchain, and the validator must agree to meet certain levels of network performance, such as processing speed and online availability of the node. A validator must also "stake" the minimum amount, or more, of the native cryptocurrency of the blockchain. Although the rules differ significantly among blockchains, staking typically has two consequences. First, the staked cryptocurrency is "locked up" for a specific period of time and cannot be transacted during this period. Second, in some protocols, a validator may lose some or all of the staked cryptocurrency (slashing) as a penalty for failing to meet performance commitments or for malfeasance such as validating a bad block of information.[454]

Validators collectively share responsibility for verifying and adding new blocks to a blockchain. However, the blockchain protocol selects one validator to add each new block and receive the associated block reward. The selection process may vary by protocol, but typically it is random and weighted by stake; nodes with higher stakes have better odds of being selected. The amount of the block reward is similarly weighted; nodes with higher stakes get bigger rewards than nodes with lower stakes.

Block rewards are calculated in different ways by different blockchain protocols. As with proof-of-work blockchains, proof-of-stake blockchains often allow or require persons transacting with the cryptocurrency to add a transaction fee when submitting their transaction. Some blockchains destroy (burn) these fees when the new block is added; other blockchains add these fees to the reward for the successful validator that adds the new block.[455]

Although only validators can stake and receive block rewards, persons other than validators (such as nodes that do not validate or cryptocurrency holders that do not operate nodes) may indirectly participate in staking (staking without validating) by delegating their cryptocurrency to a validator under a wide variety of arrangements.[456] If the delegating party retains custody of the cryptocurrency, the protocol can split any block rewards between the winning validator and the delegating party according to protocol rules. If the delegating party transfers custody to the validator, the block reward is given entirely to the validator as the nominal owner of the cryptocurrency, and the validator in turn pays the agreed share of the block reward to delegators.[457]

Similar to the maturity requirement for mining rewards, discussed above, some proof-of-stake protocols may impose time-limited restrictions on the ability of validators or stakers to transact amounts received as block rewards.

Rev. Rul. 2023-14 provides the IRS's view of the treatment of staking rewards for tax purposes. The ruling holds:

> If a cash-method taxpayer stakes cryptocurrency native to a proof-of-stake blockchain and receives additional units of cryptocurrency as rewards when validation occurs, the fair market value of the validation rewards received is included in the taxpayer's gross income in the tax year in which the taxpayer gains dominion and control over the validation rewards. The fair market value is determined as of the date and time the taxpayer gains dominion and control over the validation rewards. The same is true if a taxpayer stakes cryptocurrency native to a proof-of-stake blockchain through a cryptocurrency exchange and the taxpayer receives additional units of cryptocurrency as rewards as a result of the validation.[458]

The ruling addresses a fact pattern in which a cash-method taxpayer stakes units of a cryptocurrency, validates a new block of transactions on the blockchain and receives additional units of the cryptocurrency as validation rewards. The facts of the ruling further provide that the taxpayer is unable to dispose of the additional units for a "brief period" after the date the taxpayer acquires the validation rewards. In its analysis, the ruling states that the taxpayer gains dominion and control over the validation rewards, and has an accession to wealth, as of the date the taxpayer becomes able to dispose of the additional cryptocurrency units. Accordingly, it is the fair market value of the additional units as of the date and time the taxpayer be-

[449] In bitcoin, for example, the time required to achieve coinbase maturity following a successful mining (the addition of 100 subsequent blocks) is approximately 15–16 hours. *See* Tyler Laroche, *What is the Bitcoin Mining Block Reward,* Hashrate Index (Mar. 16, 2022).

[450] §451(b)(1)(C); Reg. §1.451-1(a).

[451] §451(b)(1); Reg. §1.451-3. See 570 T.M., *Accounting Methods — General Principles.*

[452] For definitions of "proof-of-stake" and "staking," see the Glossary of Terms in the Worksheets, below.

[453] *What is Proof of Stake?* Tezos; *What is Proof-of-Stake (POS)?* Ethereum; *Staking and Inflation FAQ*, Solana; Jake Frankenfield, *What Does Proof-of-Stake (PoS) Mean in Crypto?* Investopedia (Oct. 31, 2023).

[454] Motiur Rahman, *What is Slashing in Staking — Risk Management for Staking,* Atomic Wallet (July 16, 2023).

[455] *Compare Solana Economics Overview,* Solana *with Economics and rewards*, Open Tezos.

[456] *How to stake your ETH,* Ethereum (Dec. 15, 2023).

[457] K. Peter Ritter and Joshua Tompkins, *Proof of Stake — What's Really at Stake on the Tax Front?* Journal of Taxation of Financial Products (Apr. 11, 2022).

[458] Rev. Rul. 2023-14.

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comes able to dispose of them that is included in gross income under the ruling.

In this regard, Rev. Rul. 2023-14 echoes the holding of Rev. Rul. 2019-24 on chain forks discussed above. Both rulings focus on the time at which the taxpayer acquires the right to dispose of a new unit of cryptocurrency as the time at which the taxpayer realizes gross income equal to the fair market value of the new unit. In their statements of law, the two rulings similarly rely on the §61 definition of gross income as "all income from whatever source derived" and the *Commissioner v. Glenshaw Glass Co.*[459] description of gross income as "undeniable accessions to wealth, clearly realized, and over which the taxpayers have complete dominion." Rev. Rul. 2023-14 also includes in its statement of law a declaration that "[u]nless otherwise provided by a Code or regulatory provision, any receipt of property constitutes gross income in the amount of its fair market value at the date and time at which it is reduced to undisputed possession."

Unlike fork coins, staking rewards generally cannot be described as unsolicited property. On the contrary, as described above, stakers typically take actions with the hope and intention of causing the new units of cryptocurrency to be created. Accordingly, the treatment of staking rewards is arguably less a question of how taxpayers are to treat unsolicited property that they possess and more a question of how to characterize for tax purposes the process of staking and acquiring validation rewards.

The tax characterization of staking rewards has drawn extensive commentary and debate from practitioners and academics and the arguments and conclusions have fallen into two camps with divergent views. [460] In assessing and applying these arguments, recall that proof-of-stake blockchains can have significant differences, so the rules and procedures of the particular blockchain at issue must be carefully considered. Similarly, it is important to recognize distinctions made by commentators between: (i) newly minted staking rewards vs. transaction fee staking rewards (if any); and (ii) staking rewards received by persons that both validate and stake vs. staking rewards received by persons who only stake (delegators). Finally, if the protocol in question imposes limitations on transacting amounts received as staking rewards, the impact of these limitations on income recognition must be carefully evaluated.

The first group of commentators argue, consistently with Rev. Rul. 2023-14, that staking rewards are gross income when they are received.[461] They point to the broadly inclusive language of §61(a) as well as the expansive definition of income in the Supreme Court decision in *Glenshaw Glass* and argue that mining and staking rewards are similar to several of the nonexclusive examples of income in §61(a)(1) to §61(a)(14).[462] They generally see mining rewards and staking rewards as both being compensation for services rendered in the form of maintaining and updating the blockchain. The service element is easiest to perceive for the portion (if any) of a staking reward that is considered a transaction fee because this amount represents value paid by persons seeking to expedite the posting of their transactions onto the blockchain. The service aspect is more difficult to conceptualize for the portion of the staking reward that is newly minted; for this amount, the recipients of the service are the users of the blockchain itself, whose transactions were recorded in any period for which a staking reward was received. The commentators essentially view the newly minted cryptocurrency portion of the staking (or mining) reward as an amount created by the blockchain or network to compensate for services.[463] Additionally, the compensation for services rationale is somewhat weaker in its application to persons that stake without validating because they merely stake their cryptocurrency and do not perform the validation activities that are most clearly and directly a "service" to the blockchain users.

Arguments also may be made that staking rewards are analogous to payments in kind for rent (a payment for the use of property) or a royalty (a payment for using certain rights associated with the stake), both of which are generally recognized as gross income when paid or accrued. Where the blockchain allows slashing, analogies might also be drawn to guaranty or surety arrangements to argue that the reward is paid, in whole or in part, as compensation for placing the stake at risk as a guarantee of the accuracy of the blockchain or the timely functioning of the network. This argument would be particularly apt for persons that delegate without staking. Finally, some commentators perceive similarities between staking rewards and windfall gains such as lottery winnings or treasure trove. The weakness in this argument is that taxable accessions to wealth from windfall gains are usually the result of serendipity or lucky chance, whereas validation activities require systematic and consistent effort and sometimes extensive capital investment, and staking in itself requires the staker to delegate significant rights of its staked cryptocurrency and in some cases to expose the stake to the possibility of partial or complete loss through slashing.[464]

Finally, some commentators point out that receiving property in connection with the maintenance of a decentralized blockchain that is used by many but controlled or owned by no identifiable persons is a novel development. As a result, staking rewards may not fit neatly into the traditional categories of income, but they do constitute "income from whatever source derived" under §61.

A second group of commentators argue that staking rewards are not taxable upon receipt and that Rev. Rul. 2023-14 is inconsistent with existing precedents.[465] Unlike the first group

[459] 348 U.S. 426 (1955).

[460] For a summary of practitioner and academic commentaries on the tax treatment of staking rewards, see Sheppard, *Crypto Staking and Administrative Vacillation*, 177 Tax Notes 1063 (Nov. 21, 2022).

[461] *See, e.g.*, Marian, *Law, Policy, and the Taxation of Block Rewards*, 175 Tax Notes 1493 (Jun. 6, 2022).

[462] *See e.g.*, David J. Shakow, *Taxing Bitcoin and Blockchains — What the IRS Told Us (and What It Didn't)*, University of Pennsylvania, Penn Carry Law, Legal Scholarship Repository (Jan. 13, 2020).

[463] David J. Shakow, *Taxing Bitcoin and Blockchains — What the IRS Told Us (and What It Didn't)*, University of Pennsylvania, Penn Carry Law, Legal Scholarship Repository (Jan. 13, 2020) (validators work to add transactions to, and maintain integrity of, the blockchain; the protocol creates the cryptocurrency and gives it to the validator as compensation for such work).

[464] See Peter Ritter and Joshua Tompkins, *Proof of Stake — What's Really at Stake on the Tax Front?* Journal of Taxation of Financial Products (Apr. 11, 2022), which contrasts finding precious metal as treasure trove (taxation when reduced to possession) and mining precious metal in a conventional mining business (gross income recognized when sold). *See also* Reg. §1.61-3(a), §1.61-14(a).

[465] *See, e.g.*, David L. Forst and Sean P. McElroy, *The Creation of Property Through Staking*, 175 Tax Notes 2033 (Jun. 27, 2022); Naya Pearlman, *A*

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of commentators, who generally conceive of the staking reward as property that is paid to the staker by another party as compensation, the second group thinks the staking reward is better characterized as newly minted property that is created, or at least owned at its creation, by the reward recipient. They note that the creation or improvement of property is not generally a taxable event. For example, a car manufacturer, a soybean farmer or a gold miner does not realize gross income when the vehicle is fully assembled, the crop is harvested, or the gold is severed; rather, the taxable event occurs only when the produced property is sold.[466] Perhaps more analogous to a digital asset than cars, crops or gold, there are myriad newly created or enhanced intangible assets that taxpayers create every day to increase their own wealth without reporting gross income on the date that they obtain the right to dispose of the intangible asset for money. Some commentators in this group also focus on the requirement in *Glenshaw Glass* that §61 includes all "clearly realized" accessions to wealth. In the case of a transaction in property, the Supreme Court has stated that "one does not subject himself to income tax by the mere purchase of property, even if at less than its true value, and that taxable gain does not accrue to him before he sells or otherwise disposes of it."[467] These commentators distinguish a taxpayer that acquires newly created cryptocurrency by incurring validation costs that are exceeded by the fair market value of the newly acquired property from taxpayers who receive property as payment-in-kind from another person on a separate transaction. While the taxpayer who receives property as payment-in-kind on another transaction realizes gross income on the other transaction just the same as if it had received money equal to the value of the property,[468] a taxpayer who acquires property in a pure property transaction (i.e., a property acquisition that is not receipt of payment on a separate transaction) does not "clearly realize" gross income until a disposition of the property under *Palmer*. In the eyes of these commentators, the statement in Rev. Rul. 2023-14 that "any receipt of property constitutes gross income in the amount of its fair market value at the date and time at which it is reduced to undisputed possession" either disregards the "clearly realized" requirement of *Glenshaw Glass* or fails to acknowledge a long-recognized distinction in the case law between a taxpayer's "receipt" of property as payment-in-kind and a taxpayer's acquisition of property that is not received as payment.[469]

Before Rev. Rul. 2023-14, in *Jarrett v. United States*, taxpayers brought suit in the U.S. District Court for the Middle District of Tennessee to obtain a refund of taxes paid on staking rewards from the proof-of-stake Tezos blockchain.[470] After initial opposition, the IRS offered to issue the refund without offering an analysis of, or acquiescence in, the legal merits of the claim. The Jarretts rejected the refund offer and sought a precedential ruling on the tax treatment of their staking rewards, which the Justice Department has opposed as moot in the light of the refund offer.[471] The significance of the refund offer has been the subject of vigorous debate. Industry participants have viewed it as a highly significant concession strongly suggesting that the IRS may not attempt to tax staking rewards as received because the agency sees it has a "losing argument,"[472] while the Justice Department notes that the grant of a refund for one taxpayer for one year "is neither a prospective nor universal statement of IRS policy" and thus any claims that the Jarrett refund reflects the IRS position on staking reward is "mere speculation."[473]

The proper tax consequences of proof-of-work mining rewards and proof-of-stake staking rewards will probably remain subject to vigorous debate for some time to come.

D. Protocol Upgrades (Inclusive of Ethereum "Merge")

1. Introduction

Protocols that govern blockchains are frequently upgraded in response to changes in technology and the digital asset industry. In some cases, such as soft forks,[474] the protocol upgrade only affects the procedures and operational details of the upgraded blockchain and does not alter the numbers, types or ownership of digital assets maintained on the protocol being upgraded. In other cases, such as hard forks,[475] the protocol upgrade can involve the creation of new blockchains, the creation of new digital assets and/or the retirement of existing digital assets. The improved functionality and potentially higher asset values implied by the term "upgrade" raises issues whether and when taxable income or gain (loss) is recognized by the holders of the digital assets involved. The creation or retirement of new digital assets can raise questions regarding basis.

In CCA 202316008, the IRS addressed some of the issues posed by protocol upgrades. Specifically, the CCA considers a taxpayer T who holds 10 units of C, the native cryptocurrency of blockchain K, which uses a proof-of-work consensus method to validate transactions. The protocol of K is upgraded to a proof-of-stake consensus mechanism, which is the exclusive method of validation after the upgrade. The upgrade has no impact on the transaction records of K and all ownership of

Deep Dive Into Crypto Staking, 175 Tax Notes 1867 (Jun. 20, 2022); Abraham Sutherland, *Phantom Income and the Taxation of New Cryptocurrency Tokens*, 178 Tax Notes 669 (Jan. 30, 2023).

[466] Reg. §1.61-3, §1.61-4, §1.263A-1(c)(4), §1.471-6, §1.471-7.

[467] *Palmer v. Commissioner*, 302 U.S. 63 (1937).

[468] Reg. §1.61-1(a).

[469] An additional argument made by some commentators is that staking rewards are (at least on some protocols) at least partially dilutive of the amount stake and are thus comparable to pro rata stock dividends. For a discussion of these arguments, see Mattia Landoni and Abraham Sutherland, *Dilution and True Economic Gain from Cryptocurrency Block Rewards,* SSRN (Aug. 25, 2020); *Report on Cryptocurrency and Other Fungible Digital Assets*, New York State Bar Association, Tax Section, Report 1461 (2022); and K. Peter Ritter and Joshua Tompkins, *Proof of Stake — What's Really at Stake on the Tax Front?* Journal of Taxation of Financial Products (Apr. 11, 2022).

[470] *Jarrett v. United States*, No. 3:21-cv-00419, 2022 BL 349876 (M.D. Tenn. Sept. 30, 2022), aff'd, 79 F.4th 675 (6th Cir. 2023).The complaint in *Jarrett v. United States* is available in *Cryptocurrency Tax on Token Creators Fought in New Lawsuit*, DTR (May 26, 2021), and the brief in support is available at *Brief in Support of Taxpayer Joshua Jarrett's 1040-X Amended Return and Claim for Refund. See also* Abraham Sutherland, *Cryptocurrency Economics and the Taxation of Block Rewards,* SSRN (Nov. 13, 2019).

[471] *Crypto Staker Points to SCOTUS Ruling to Keep Tax Lawsuit Alive,* DTR (Mar. 15, 2022); *U.S. Seeks Crypto Suit Dismissal After Taxpayers Refuse Refund,* DTR (Mar. 1, 2022).

[472] *IRS Waves White Flag in Lawsuit Over Taxability of Cryptocurrency Staking Rewards,* Proof of Stake Alliance (Feb. 3, 2022).

[473] *Taxpayers in Jarrett Case Still Seek an Answer on Crypto Staking,* DTR (Apr. 8, 2022).

[474] *See* VII.A.1., above.

[475] *See* VII.A.2., above.

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C, including T's 10 units of C, remains unaffected. T receives no cash, digital assets or other property as a result of the upgrade. The CCA concludes: (i) that the upgrade did not result in an exchange under §1001 because T continues to own the same 10 units of C both before and after the upgrades; and (ii) that the upgrade did not result in income under §61 because the upgrade provided T with no separable economic benefits in the form of cash, services, cryptocurrencies or other property. The CCA cites no authority that expands upon the concept of separable economic benefits.

2. The Ethereum Merge — Commentary

CCA 202316008 analyzes a greatly simplified example of a change from proof-of-work to proof-of -stake. A more realistic demonstration of the technical and practical challenges posed by such a simple-sounding upgrade has recently been provided by the popular Ethereum blockchain, which finalized its transition from proof-of-work to proof-of-stake in September of 2022. This transition, which was widely known as "the Merge,"[476] may have been the impetus behind the issuance of CCA 202316008, which addresses some, but far from all, of the tax issues arising from the Merge.

Ethereum originally operated under a proof-of-work consensus mechanism broadly similar to bitcoin. In September 2022, after years of discussion, planning and testing, Ethereum transitioned to a proof-of-stake consensus mechanism in an event known as the Merge. The switch from proof-of-work to proof-of-stake was intended to reduce the electricity consumption of the Ethereum network by eliminating mining and to increase the transaction-processing capability of the Ethereum network. Generally, proof-of-stake networks are able to process transactions more quickly than proof-of-work networks because they do not require the computational work for validation of blocks that is required in a proof-of-work network.

To begin the transition of the Ethereum network to a proof-of-stake consensus mechanism, staking of ETH was introduced in 2020. Staking occurred on a proof-of-stake blockchain (the Beacon blockchain) operating alongside the Ethereum blockchain. To stake on the Beacon blockchain, a holder of ETH "locked" a minimum of 32 ETH on the Ethereum blockchain by transferring it to a staking address that did not allow the ETH to be withdrawn. The transfer to the staking address activated the holder's Beacon blockchain validation software. The staking ETH holder is required to validate transactions on the Beacon blockchain to avoid slashing of the staked ETH. Validation activity also earns staking rewards for the staker in the form of additional ETH. The additional ETH, like the original staked ETH, remain locked on the Ethereum blockchain.

Prior to the Merge, the only transactions on the Beacon blockchain validated by the stakers were the entry of new validators onto the Beacon blockchain, the creation of staking rewards and the slashing and possible removal of non-performing validators. In the Merge, the Beacon blockchain validators began validating all transactions on the Ethereum network in place of the proof-of-work miners who had previously validated Ethereum network transactions. Thus, the proof-of-stake Beacon blockchain became the "consensus layer" for the Ethereum network. the Merge did not, however, change the other facts and circumstances surrounding ETH staking. That is, immediately following the Merge, ETH stakers continued to stake by locking 32 ETH, and they continued to be unable to unlock either the original 32 staked ETH or the staking rewards earned. The mechanisms for unlocking staked ETH and staking rewards were finalized and agreed via the "Shanghai" (subsequently dubbed "Shapella") upgrade on April 12, 2023. On this date, direct users of Ethereum were able to withdraw their ETH with various custodians and exchanges following suit and allowing withdrawals over the following week.

3. Ethereum Proof-of-Work Fork and ETHW

Following the Merge, a network of Ethereum proof-of-work miners determined to continue validating transactions using a proof-of-work consensus mechanism, and this network of miners has created a "forked" blockchain known as "Ethereum Proof-of-Work," "ETHW" or "ETHPoW." The ETHW validators recorded ownership of ETHW by holders of ETH at the time of the Merge, and therefore pre-Merge holders of ETH now may claim to own and transfer both ETH and ETHW assets.[477]

The Merge, the staking of ETH and the creation of the ETHW network raise a number of interesting federal income tax questions. Some of these questions, such as the general treatment of staking rewards or the treatment of a blockchain "fork," are addressed in more detail in other sections of this Portfolio, but a few issues unique to staking on the Beacon blockchain and the ETH Merge are discussed below.

4. Tax Considerations from the Merge

One important consideration is whether either staking on the Beacon blockchain or the occurrence of the Merge could be treated as a taxable disposition of ETH by a holder of ETH. In the case of staking on the Beacon blockchain, the question may arise because in order to participate in staking, the staking holder must transfer its ETH to a locked address from which it cannot remove the ETH. However, it is important to observe that an ETH holder does not transfer any of its rights with respect to ETH to any other person, and the holder does not relinquish its right to the economic benefits and burdens of ETH ownership. The locked state of the ETH was a temporary circumstance. The absence of any transfer of an ETH holder's rights in its ETH to another person makes it difficult to describe staking ETH as a disposition of the holder's rights with respect to the ETH. In the case of the Merge, the question may arise because the transition to a proof-of-stake network could be viewed as changing the economic profile of the holder's investment in ETH — after the Merge, the holder owns an asset that can be staked in order to acquire additional ETH whereas ETH before the Merge did not provide its holder that ability. But in this case as well, the ETH holder does not transfer its rights in ETH to any other person; rather, the change from proof-of-work to proof-of-stake constitutes a change in the Ethereum network environment in which the ETH asset is

[476] *See The Merge*, Ethereum (May 31, 2023).

[477] *See* Josiah Makori, *What is ETHW (EthereumPoW) and How Does It Work*, CoinGecko (Feb. 16, 2023).

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used rather than a change in the nature of the ETH digital asset itself.

Another important consideration regarding ETH staking is the timing of income inclusion assuming that a validator's staking rewards generally represent gross income to the staker upon their acquisition. Given that ETH staking rewards may not be withdrawn from the locked address until withdrawals are enabled by the Ethereum community, it should be considered further whether such rewards are includible in gross income until withdrawals were made possible, or perhaps later when the rewards are disposed.

Commentary: CCA 202316008 suggests that taxpayers that held ETH before and after the upgrade would not experience gain (loss) under §1001 or gross income under §61. Like T, such taxpayers received no "separable" economic benefits from the upgrade; although they will presumably enjoy the various benefits that are anticipated to flow from the upgrade to proof of stake, these benefits cannot be separated from their ownership interest in the ETH, which was not affected by the upgrade.

The application of CCA 202316008 to taxpayers that converted ETH to records on the Beacon chain is less straightforward. Ordinary ETH and Beacon records differ in significant ways, and the transition from one to another requires a more robust analysis of a possible exchange under §1001 than CCA 202316008 offers. Further, the final contemplated step of fully converting the Beacon records back into ETH has not been resolved.

E. Decentralized Finance

1. Introduction

Participants in digital asset markets have increasingly devised and used smart contract mechanisms for creating public markets in digital assets that allow participants to transact without either a bilateral agreement on terms with another party or intermediation by a clearinghouse, dealer or other market maker. Instead, the smart contract software automatically determines the economic entitlements of participants who bring their digital assets into the software's market based on the supply of, and demand for, the assets in the market. These smart-contract-based markets are broadly referred to as "decentralized finance" or "DeFi."[478] DeFi has been used with growing frequency by digital asset owners in order, among other things, to borrow or to lend digital assets (DeFi Lending) and to exchange digital assets and to take positions on changes in digital asset prices (broadly "Decentralized Exchanges" or "DEX" and often referred to as a liquidity pool). Both DeFi Lending and DEX transactions can raise significant tax questions for participants.

2. DeFi Lending

A variety of products exist in the marketplace that could be described broadly as DeFi Lending or DEX transactions.[479] To describe features generally applicable to these transactions is to gloss over variations that may well affect the tax treatment of different versions of them. That said, to participate in DeFi Lending, a holder of a digital asset generally transfers the asset (e.g., ETH) to the address specified for the governing smart contract which in turn tracks the units of deposited assets to the depositors' address. The assets transferred by all users to the smart contract address comprise an asset pool (lending pool) available for other market participants to borrow. Borrowing is permitted to occur only on an overcollateralized basis, meaning that borrowing participants must also be lending participants and the value of the assets that they borrow must have a smaller value (by a margin specified by the platform) than the assets that they have lent. A depositor's balance within a pool is tracked by the smart contract and can be withdrawn at any time subject to the following limitations:

- **Pool Liquidity Requirements** — The lending pool must be liquid enough to support the withdrawal. Given that fees associated with borrowing from the pool are automatic and dynamic, it is uncommon that a lending pool's liquidity would be fully utilized. As such, this is generally not a common limitation to average users of a pool; however, it may affect proverbial "whales" that comprise a significant portion of a given lending pool.[480]

- **Account Liquidity Requirements** — The governing smart contract tracks a given depositor's address amongst the various lending pools on the platform and limits the amount withdrawable to ensure the account maintains appropriate levels of collateral in relation to their outstanding borrowing.[481]

Example: A participant that transfers ETH to a pool could borrow USDC that was transferred to a pool by other participants provided that the value of USDC borrowed is always overcollateralized by the value of ETH that the participant has lent. The smart contract governs collateral maintenance and liquidation procedures if sufficient collateral is not maintained. The borrowing participants are charged fees, and the lending participants receive fees, also subject to the terms and conditions of the smart contract.

A primary tax question that arises with respect to DeFi Lending transactions is whether lending participants should be treated as participating in digital asset lending transactions, with the DeFi token representing the digital asset loan, or treated as making a taxable exchange of the transferred assets for the DeFi token. If the DeFi Lending transaction is treated as a digital asset lending transaction, then the tax considerations generally are described in VII.F., below.[482]

[478] For a definition of DeFi, see the Glossary of Terms in the Worksheets, below.

[479] For a definition of DeFi Lending, see the Glossary of Terms in the Worksheets, below.

[480] For a definition of a "lending pool," see the Glossary of Terms in the Worksheets, below.

[481] *See* Matthias Hafner, Romain de Luze, Nicolas Greber, Juan Beccuti, Benedetto Biondi, Gidon Katten, Michelangelo Riccobene, and Alberto Arrigoni, *DeFi Lending Platform Liquidity Risk: The Example of Folks Finance,* The Journal of The British Blockchain Association (Apr. 2, 2023).

[482] See the Worksheets below for explanatory diagrams of these general DeFi Lending constructs and considerations.

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3. Decentralized Exchanges or DEX

Decentralized exchanges or DEX enable market participants to buy and sell digital assets at market prices without the use of intermediaries or market makers.[483] DEX frequently are enabled by market participants who transfer a pair of digital assets to the smart contract address for a DEX pool to provide liquidity to the pool. These participants, called liquidity providers, receive DeFi tokens, often called "Liquidity Provider tokens" or LP tokens, in return for the pair of assets. The quantity of each asset in the pair that must be transferred to the pool in order to receive an LP token is determined by the smart contract, and the quantities vary based on the relative market prices of the two assets as established by the trading activity of market participants with the pool. At any given time, the smart contract establishes the amount of each asset that must be transferred to the pool to remove a specified quantity of the other asset from the pool. Market participants may maintain the relative values of each asset in the pool in equilibrium with market prices by arbitraging divergences between the prices available in the pool and those available in external markets.

Example: DEX operation. Assume a liquidity provider transfers 1 ETH and 2000 USDC to a DEX pool in exchange for an LP token in accordance with the requirements of the governing smart contracts. At that exact moment in time, the ratio of the pair of assets, ETH and USDC, signifies the price at which other market participants could withdraw 1 ETH from the pool (i.e., by transferring 2000 USDC into the pool) or withdraw 2000 USDC (i.e., by transferring 1 ETH into the pool). However, as participants begin to withdraw one asset or the other from the pool, the ratio of the two assets, ETH and USDC, changes, and thus the smart contact adjusts the price payable for each asset. For example, if a participant transfers USDC into the pool and withdraws ETH, that changes the ratio of the two assets in the pool, and thus increases the amount of USDC that must be transferred to the pool to withdraw additional ETH.

DEX present a number of tax questions for liquidity providers in particular. First, a question could arise as to whether or not a DEX pool represents a business entity for tax purposes. Generally no entity-level tax reporting occurs in these constructs. Furthermore, it is not clear that the DEX pool represents a "joint venture or contractual arrangement" or the carrying on of a trade, business, financial operation or venture with the division of profits therefrom.[484] The liquidity providers are anonymous, so it is hard to say that they are carrying on business together. As a practical matter, given the decentralized nature of DEX pools, no entity-level tax reporting occurs. Second, when a liquidity provider transfers assets to a DEX pool in exchange for an LP token, is there a taxable exchange of the transferred assets? On one hand, an LP token provides its holder with a different economic position from direct ownership of the pair of assets transferred into the pool due to the pricing mechanisms inherent in the DEX smart contracts. Furthermore, LP tokens generally are transferable. Accordingly, it may be thought appropriate to treat the transfer of assets into a DEX pool as a taxable disposition of those assets. On the other hand, the transfer of assets into a DEX pool does not place the ownership of those assets into the hands of another identifiable person, and the LP token represents a right to remove such assets from the DEX pool at a later date (albeit at the ratio of the two assets that is then present in the pool, which will likely be a different ratio than when contributed to the pool). On the other hand, the LP token holder could claim to remain the owner of the assets placed in the DEX pool and treat the DEX as an algorithmic trading program that the holder has chosen to put into effect with respect to its pair of assets. However, it would be technically difficult if not impossible for such a holder to report its share of all of the transactions that occur in the DEX pool on a current basis. A third question is how to account for fees, if any, paid by third parties that transact with the pool. Those fees ultimately inure to the benefit of the liquidity providers. [485]

F. Cryptocurrency Lending

1. Introduction

Digital asset lending transactions have become common. Digital asset lending transactions are entered by a wide variety of market participants, from large liquidity providers to individual investors. Digital asset lending transactions may be executed through traditional contractual arrangements or through DeFi, described in VII.E., above.

For example, a large digital asset lender may lend BTC to a digital asset trading platform through a privately negotiated contract that looks similar to a securities lending agreement. On the other hand, a digital asset platform that allows customers to deposit BTC into an account may give the customers the option to lend the BTC to the platform in exchange for a periodic return on the lent BTC, with such lending arrangement generally governed by standard terms and conditions. As another example, a company with frequent intercompany transactions in digital assets may have a master digital asset loan agreement in place to provide for efficient transfers of digital assets within the corporate group through lending transactions.

Lenders of digital assets are often sensitive to the U.S. tax consequences of digital asset loans given the potential for large built-in gains in the loaned digital assets. When considering digital asset loans from a U.S. federal income tax perspective, the first step of the analysis generally involves a determination of whether beneficial ownership of the digital asset transferred to the borrower. If there was a transfer of beneficial ownership for U.S. federal income tax purposes, the second step of the analysis is determining whether such transfer resulted in the lender recognizing gain or loss on the loaned digital assets (i.e., whether such transfer is taxable or nontaxable).

2. Commentary on Basic Mechanics and Key Terms

In a typical digital asset loan, such as when individuals engaging with digital assets through lending transactions, the lender transfers a specific amount and type of digital asset

[483] For a definition of "DEX," see the Glossary of Terms in the Worksheets, below.

[484] *See* Reg. §301.7701-1(a)(2).

[485] See the Worksheets below for an explanatory diagram of a DEX.

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to the borrower in exchange for the borrower's agreement to transfer the same amount and type of digital asset back to the lender on a fixed date or on demand. For example, the lender transfers 100 BTC to the borrower and, in exchange, the borrower agrees to return 100 BTC to the lender on a fixed date or upon the lender's demand.

During the term of the digital asset loan, the borrower generally has free use of the borrowed digital asset, including the right to sell or rehypothecate[486] the digital asset. As a result, when the borrower returns the digital asset, it usually does not return the exact digital asset that was borrowed, but rather returns a digital asset that is fungible with the borrowed digital asset.

Digital asset loans typically provide for the borrower to pay the lender a return on the loaned digital asset on a periodic basis. Such return may be referred to as "interest," but is similar to a borrow fee on a securities loan. Similar to a securities loan, a digital asset loan may require the borrower to post cash or liquid assets (including other digital assets) as collateral.

While the loan is outstanding, the loaned digital asset may be subject to a hard fork or an airdrop,[487] and the digital asset loan terms will often specify what happens upon a hard fork or an airdrop. For example, the terms of the digital asset loan may permit the lender to require the immediate return of the loaned digital asset before a hard fork or an airdrop or, if such an event occurs while the loan is outstanding, the terms of the digital asset loan may specify the circumstances when any additional property or digital asset resulting from the event is required to be transferred to the lender.

3. Tax Ownership Considerations

As noted in III.B., above, IRS guidance provides that convertible virtual currencies are "property" for federal income tax purposes.[488] Transactions involving the sale or exchange of property for other property differing materially in kind or extent result in a realization event and the recognition of gain or loss with respect to such property, unless a nonrecognition provision applies.[489] When analyzing whether a loan of property results in such a sale or an exchange, it is first necessary to determine whether tax ownership of the property was transferred.[490]

In *Provost v. United States*, the Supreme Court held that, for purposes of imposing a stamp tax on sales of stock, both the loan of stock and the return of the borrowed stock pursuant to a securities lending arrangement involved the transfer of the legal ownership of the stock resulting in the imposition of the stamp tax.[491] The Court explained that when a lender transfers stock to a borrower under a securities loan, and the borrower sells the stock short, the lender has transferred "all the incidents of ownership in the stock."[492] While the Supreme Court in *Provost* did not contemplate loans of digital assets, the same general considerations should apply.

Commentary: In many cases, it is clear that tax ownership has been transferred pursuant to a digital asset lending transaction. For example, where the borrower of the digital assets simply sells them to another party (thereby transferring all the benefits and burdens of ownership), the purchaser of the digital assets would be the tax owner of such digital assets. In other situations, it may not be entirely clear which party is the tax owner of the digital assets. For example, where the borrower has the right to rehypothecate the digital assets, but simply pledges the digital assets as collateral or uses them for DeFi activities, there is less certainty on whether tax ownership transferred to the borrower or remained with the lender.

4. Commentary on Nontaxable Property Loans

If a digital asset loan transfers tax ownership of the digital asset, it is then necessary to determine whether the digital asset loan qualifies as a nontaxable property lending transaction under general principles of tax law and existing guidance. The Supreme Court's decisions in *Provost*[493] and *Deputy v. du Pont*[494] established that a typical securities loan is not indebtedness and generally results in the disposition of the underlying securities for U.S. federal income tax purposes. The cases do not, however, directly address whether a securities lending transaction (or similar property lending transaction) results in a taxable exchange within the meaning of §1001. Since these decisions, Congress and the IRS have provided guidance for determining whether a property lending transaction results in a taxable exchange for purposes of §1001. In particular, Congress's enactment of §1058 in 1978 clarified the tax treatment of securities loans. The discussion below provides an overview of the guidance addressing securities lending transactions and the application of such guidance to digital asset loans by analogy.

a. Section 1001 and Early IRS Guidance

As set forth above, under §1001 and Reg. §1.1001-1(a), the sale or exchange of property for other property differing materially in either kind or extent generally results in the recog-

[486] Very generally, "rehypothecation" refers to a financial platform's practice of use or reinvestment, for its own purposes, of depositors' assets to further the platform's access to credit. *See generally* Julia Kagan, *Rehypothecation: Meaning and Examples*, Investopedia (Jan. 26, 2023).

[487] See VII.A., above, for a discussion of hard forks and airdrops.

[488] Notice 2014-21.

[489] §1001; Reg. §1.1001-1(a).

[490] There are a number of authorities addressing the issue of tax ownership in many different contexts, and these authorities generally hold that all facts and circumstances must be examined to determine which party possesses the benefits and burdens of ownership. *See In re Celsius Network LLC*, 647 B.R. 631 (Bankr. S.D.N.Y. 2023) (title and ownership of digital assets transferred to wallet provider when account holders signed valid Terms of Use agreement). *See generally Grodt & McKay Realty, Inc. v. Commissioner*, 77 T.C. 1221 (1981) (setting forth eight factors that are relevant when determining ownership of tangible personal property). When determining whether the tax ownership of publicly traded securities has been transferred, some commentators have taken the view that the analysis depends on whether control over the securities (as evidenced by the power to dispose) has been transferred. *See, e.g.*, Edward D. Kleinbard, *Risky and Riskless Positions in Securities*, 71 Taxes 783, 786 (Dec. 1993); Alex Raskolnikov, *Contextual Analysis of Tax Ownership*, 85 B.U. L. Rev. 431, 434 (2005).

[491] 269 U.S. 443 (1925). The Supreme Court also provided a thorough description of securities lending transactions and short sales in *Provost. See also* Rev. Rul. 57-451(citing to *Provost* when explaining that, in a securities lending transaction, "[f]or such incidents of ownership [of the stock], the 'lending' broker has substituted the personal obligation, wholly contractual, of the 'borrowing' customer to restore him, on demand, to the economic position in which he would have been as owner of the stock, had the 'loan' transaction not been entered into").

[492] 269 U.S. 443, 456.

[493] 269 U.S. 443 (1925).

[494] 308 U.S. 488 (1940).

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nition of gain or loss with respect to such property (unless another provision overrides such gain or loss recognition). The seminal case interpreting Reg. §1.1001-1(a) is *Cottage Savings Association v. Commissioner*, where the taxpayer exchanged one guaranteed mortgage pool for another.[495] The Supreme Court explained that properties exchanged are "materially different" if they embody legal entitlements that are "different in kind or extent" or if the properties confer "different rights and powers."[496] The Court held that the taxpayer engaged in a taxable exchange because the legal entitlements associated with one pool of mortgages differed materially from the legal entitlements associated with the other.

In the context of securities lending and similar property lending transactions, the historical view has been that there is a single exchange to analyze, which is the transfer of the property by the lender in exchange for the return of identical property by the borrower upon the repayment of the loan (i.e., the transaction is viewed as a deferred exchange). As discussed further below, this construct has developed over time into a more modern view where there are two exchanges at issue: (i) at inception, the lender transfers the property in exchange for a contractual right (i.e., the borrower's obligation to return identical property); and (ii) at termination, the borrower returns identical property in exchange for the termination of such contractual right.

The first guidance from the IRS addressing property lending transactions and taxable exchanges appears to have been a "Special Ruling" that the IRS issued to the New York Stock Exchange on April 19, 1948. In the ruling, the IRS concluded that the securities lending transaction at issue:

> is not a disposition of property which results in recognized gain or loss for Federal income tax purposes; and that such a transaction does not affect the lender's basis for the purpose of determining gain or loss upon the sale or the disposition of the stock, nor the holding period of the stock in the hands of the lender.[497]

Thus, in the first known ruling on the issue, the IRS determined that securities lending transactions generally do not result in a §1001 taxable exchange of the securities.

In 1957, the IRS issued a revenue ruling generally providing that the lending of corporate stock under a securities lending transaction may not result in a taxable disposition of the stock if the requirements of §1036 are met.[498] In the ruling, the IRS stated that "[a] simultaneous delivery of property is not essential to an exchange," thereby taking the historical approach of viewing the securities lending transaction as a transfer of securities in exchange for the return of the same securities at a future time.[499] In any case, the ruling was somewhat narrow in that it applied only in the context of corporate stock lending transactions that met the requirements of §1036 and did not directly address the issue of whether the securities loan resulted in a §1001 taxable exchange.

The IRS provided additional guidance on securities lending transactions in a 1976 General Counsel Memorandum (GCM). In the GCM, the IRS determined that the disposition of the securities at issue did not result in a taxable exchange of securities under §1001 and Reg. §1.1001-1(a) because the borrower would return identical securities that did not differ materially in kind or extent.[500] In this respect, the IRS again analyzed the transaction based on the historical deferred exchange approach. The IRS addressed the lapse in time between the transfers under this approach, stating "[a]lthough exchanges often take the form of simultaneous transfers, recognition of a transaction as an exchange depends on its substance."[501]

b. Section 1058

Congress enacted §1058 in 1978 to further clarify the tax treatment of securities lending transactions. The fact that §1058 was a clarification of existing law, rather than a change in law, is noted in the legislative history which states that the Senate Committee on Finance "concluded that it is desirable to clarify existing law as to the appropriate tax treatment of lenders of securities generally."[502]

Section 1058(a) provides that a taxpayer that transfers securities (as defined in §1236(c)) pursuant to a securities lending agreement meeting certain requirements does not recognize gain or loss: (i) on the exchange of the securities for an obligation under the agreement; or (ii) on the exchange of the rights under the agreement for identical securities.[503] In this respect, Congress appears to have had a more modern view of securities lending transactions in mind when enacting §1058 (i.e., an initial exchange of securities for a contractual obligation to return identical securities and a second exchange upon the return of identical securities).

Section 1058(b) sets forth the statutory requirements for the securities lending agreement, providing that the securities lending agreement must:

> (i) provide for the return to the transferor of securities identical to the securities transferred;
>
> (ii) require that payments shall be made to the transferor of amounts equivalent to all interest, dividends, and other distributions which the owner of the securities is entitled

[495] 499 U.S. 554 (1991).

[496] 499 U.S. 554, 565.

[497] The quoted language is reprinted in the §1058 legislative history (discussed in further detail below). *See* S. Rep. No. 95-762, at 4 (1978).

[498] Rev. Rul. 57-451. Section 1036(a) generally provides that no gain or loss is recognized when common stock of a corporation is exchanged solely for common stock in the same corporation (or if preferred stock is exchanged solely for preferred stock in the same corporation).

[499] Rev. Rul. 57-451.

[500] GCM 36948 (Dec. 10, 1976) ("In summary, we believe that the transaction in question is an exchange of securities and not a loan. In the typical case where the broker-dealer satisfies his contractual obligation by delivering securities not differing materially in either kind or extent, there will be no realization of gain or loss under Code §1001 because of Reg. §1.1001-1(a)."). In a 1977 GCM, the IRS modified certain conclusions in GCM 36948 related to the treatment of substitute payments under the securities loan as unrelated business income to tax exempt organizations, but also stated that it was not revoking the prior memorandum because of its general discussion of the treatment of securities lending transactions, thereby implicitly reaffirming the non-taxable exchange analysis. GCM 37313 (Nov. 7, 1977).

[501] GCM 36948.

[502] S. Rep. No. 95-762, at 4, 7 (1978). The legislative history also cites to the 1948 Special Ruling when explaining that the IRS "has not disputed the position that a securities lending transaction does not constitute a taxable disposition of the loaned securities, or that the transaction does not interrupt the lender's holding period." *Id.* at 4.

[503] For further discussion of §1058, see 188 T.M., *Taxation of Equity Derivatives.*

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to receive during the period beginning with the transfer of the securities by the transferor and ending with the transfer of identical securities back to the transferor;

(iii) not reduce the risk of loss or opportunity for gain of the transferor of the securities in the securities transferred; and

(iv) meet such other requirements as the Secretary may by regulation prescribe.[504]

Proposed regulations under §1058 provide further guidance on the requirements for the securities lending agreement,[505] including that the transferor must be able to terminate the loan upon not more than five business days' notice.[506]

c. Considerations for Digital Asset Loans as Nontaxable Property Lending Transactions

As set forth above, §1058(a) applies to securities as defined in §1236(c), which provides that a security is "any share of stock in any corporation, certificate of stock or interest in any corporation, note, bond, debenture, or evidence of indebtedness, or any evidence of an interest in or right to subscribe to or purchase any of the foregoing." Digital assets such as BTC generally are not considered securities for purposes of §1236(c), such that §1058 is not applicable to loans of such digital assets. With that said, it is important to consider the particular digital asset at issue when determining whether it may be a §1236(c) security.[507] For example, certain stablecoins that are linked to the U.S. dollar may represent indebtedness of the stablecoin issuer.[508]

For digital assets that are not securities as defined in §1236(c), while §1058 is not currently applicable, the White House's fiscal year 2023 budget blueprint included a provision that would expand §1058 to cover digital asset loans. For a further discussion of the proposal to expand §1058, see the Legislative Proposals in the Worksheets, below. Even without such proposed legislation, however, loans of such digital assets may be nontaxable property lending transactions under general principles of tax law.[509]

In a 2011 report on the taxation of securities loans, the New York State Bar Association analyzed the definition of securities in §1236(c) in the context of §1058 and recommended that the definition be broadened to include all instruments that are publicly traded and may be loaned in a typical securities lending transaction.[510] The report also provides that even if Treasury and the IRS do not believe they have the authority to broaden the definition of securities under §1058, "it would be appropriate to apply nonrecognition status to loans of publicly-traded property" pursuant to Reg. §1.1001-1(a).[511]

In *Samueli v. Commissioner*, the Ninth Circuit stated that the five-day requirement in the proposed regulations may not be a hard-and-fast rule for qualifying for nontaxable treatment.[512] The court noted that "[i]t may be possible that nonrecognition treatment should be given to a transaction that fails to meet all of the specific requirements of §1058(b), but that nonetheless is motivated by the goals that Congress had in mind when it enacted §1058."[513]

Commentary: The Ninth Circuit's statements in *Samueli* suggest that a facts and circumstances approach may be appropriate when determining if nonrecognition treatment applies to property lending transactions that are not covered by §1058. This approach appears to be consistent with the IRS guidance issued prior to §1058 and the legislative history to §1058.

Commentary: When applying a facts and circumstances approach to determine if a digital asset lending transaction is a nontaxable property lending transaction, given guidance provided by the IRS before the enactment of §1058 and the legislative history to §1058 stating that it was meant to "clarify existing law," it generally is advisable to analyze:

(i) whether the relevant loan agreement meets the requirements of §1058(b) and the §1058 proposed regulations (other than the requirement that the underlying property be a "security" under §1236(c));[514] and

(ii) whether the digital assets that are lent represent fungible, publicly traded property.

With respect to the first part of the analysis, the key considerations in the context of digital asset loans include: (i) whether the loan requires the return of identical digital assets (as opposed to allowing for cash settlement or other property to be delivered); (ii) whether the loan requires any property "distributed" with respect to ownership of the digital assets (including as a result of hard forks and airdrops) to be paid or otherwise delivered to the lender; and (iii) whether the lender may

[504] §1058(b).

[505] *See* 48 Fed. Reg. 33,912 (Jul. 26, 1983).

[506] Prop. Reg. §1.1058-1(b)(3). The five-day period incorporated the typical settlement cycle for trades at the time that the regulation was proposed. *See Report on the Taxation of Securities Loans and the Operation of Section 1058*, New York State Bar Association, June 9, 2011, at 20 (explaining that, "in 1978, a securities loan callable 'on demand' was still subject to a five-day period before called securities actually would be delivered to the lender's account").

[507] Note that the IRS will not rule on whether a taxpayer recognizes gain or loss on the transfer of virtual currency in exchange for a contractual obligation that requires the return of identical virtual currency to the taxpayer or on the transfer of identical virtual currency to the taxpayer in satisfaction of the contractual obligation. Rev. Proc. 2025-3, §3.01(96).

[508] For a description of stablecoins, see II.B.2., above.

[509] Treasury's explanation of the proposed expansion of §1058 provides that "[n]o inference would be intended regarding the treatment of loans of digital assets" under current law. *General Explanations of the Administration's Fiscal Year 2023 Revenue Proposals*, Department of the Treasury, 96 (Mar. 28, 2022).

[510] *Report on the Taxation of Securities Loans and the Operation of Section 1058*, New York State Bar Association, June 9, 2011.

[511] *Report on the Taxation of Securities Loans and the Operation of Section 1058*, New York State Bar Association, June 9, 2011, at 20–21.

[512] 658 F.3d 992, 1001–02 (9th Cir. 2011), aff'g 132 T.C. 37 (2009) (citing the New York State Bar Association report discussed above as well as *ABA Committee Report on Securities Lending Transactions*, A.B.A.). In *Samueli*, the Ninth Circuit affirmed the decision of the Tax Court when holding that the lenders reduced their opportunity for gain when they relinquished all control over the securities for all but three days such that securities loan did not qualify for nonrecognition treatment under §1058. *Id.*

[513] 658 F.3d at 1004.

[514] The New York State Bar Association drafted a report on the taxation of cryptocurrency that included recommendations for regulations under §1001 addressing digital asset loans. *See Report on Cryptocurrency and Other Fungible Digital Assets*, New York State Bar Association, April 18, 2022, at 27. Such recommendations rely on the §1058 requirements as a starting point, and the report includes a detailed discussion of the potential application of such requirements in the context of digital asset loans. *Id.* at 27–33.

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demand the return of the loaned digital assets at any time with sufficient notice (such as five days). [515]

The second part of the analysis stems from the general policy behind §1058 and nontaxable property lending transactions. That is, the goal of facilitating markets for the borrowing and lending of assets in modern financial transactions. In this respect, many digital assets trade on established, liquid markets.

Commentary: Because it is likely that §1058 does not literally apply to cryptocurrency loans, it is not entirely clear whether a cryptocurrency loan should be considered tax-free even if it otherwise meets the requirements of §1058, but it is also not entirely clear that a cryptocurrency loan is not tax-free even if all of the requirements of §1058 are not strictly satisfied.

G. Simple Agreements for Future Tokens (SAFTs)

1. Background

Companies and organizations that issue tokens generally require working capital to develop and launch their network. In addition to raising funds through borrowing, raising equity and selling tokens in an initial coin offering (ICO),[516] such token issuers may raise funds through entering into Simple Agreements for Future Tokens ("SAFTs").[517] SAFTs may be entered into between a token issuer and an investor prior to an ICO, pursuant to which the investor agrees to pay a discounted price to acquire tokens from the token issuer at a later date.

2. Commentary on Typical Terms

In a typical SAFT, for example for individuals engaging with digital assets through SAFTs, a token buyer makes an upfront payment (i.e., the purchase price) to the token issuer and, in exchange, the token issuer agrees to deliver a number of tokens[518] to the buyer equal to the purchase price divided by a fixed price per token upon the occurrence of a certain event. Common events include a "network launch,"[519] the token's public sale, or the passing of a certain period of time. SAFTs are generally issued prior to the creation of the tokens, often when minimal development activity has occurred. As such, the token price used in the SAFT typically is substantially less than the token price once the token is available on a working network.

SAFTs generally are privately negotiated agreements such that the terms may vary considerably to accommodate the parties' needs. Common features of SAFTs include: a lockup period after the buyer takes delivery of the tokens; a required cash payment from a buyer who cannot take delivery; and the return of funds to the buyer if token delivery is not possible because of, for example, a technical failure or a dissolution event (e.g., a voluntary termination of operations or wind up of the issuer).[520] The SAFT will often provide that the buyer's right to receive a payment from the token issuer under the SAFT is equal to the rights of general unsecured creditors. In some cases, the buyer will also receive equity (e.g., stock in the token issuer) when it enters into the SAFT.

SAFTs generally terminate upon either: (i) the delivery of the underlying tokens to the buyer pursuant to the terms of the SAFT (e.g., upon a network launch); or (ii) the payment, or setting aside for payment, of amounts due to the buyer in the event that token delivery is not possible (e.g., as a result of a technical failure or dissolution event).

When one or both parties to a SAFT is a U.S. taxpayer, SAFTs commonly include a provision whereby the parties agree to the U.S. federal income tax treatment of the SAFT. In these provisions, the parties will often agree to treat the SAFTs as prepaid forward contracts for U.S. federal income tax purposes, and this treatment is discussed in more detail below. Further, where the buyer is also receiving equity in the token issuer, the parties may agree to treat the overall arrangement as an investment unit and agree to the allocation of the purchase price between the equity purchase and the SAFT.

3. General Treatment/Characterization

As an initial matter, tokens that are to be issued under a SAFT will often fall within the definition of "virtual currency" in Notice 2014-21 such that, under the notice, the tokens are treated as property, at least as of the time that they are issued and available to use as a medium of exchange.[521]

Commentary: Once it is established that the tokens referenced in the SAFT are property (or will be property, once issued), a typical SAFT has many of the same characteristics of a prepaid forward contract. With that said, because SAFTs generally are privately negotiated agreements, the terms may vary widely and it is important to closely analyze the specific terms of each SAFT. For example, a SAFT that provides for voting or financial rights with respect to the token issuer (aside from just the right to the tokens), or for services to be rendered by the token issuer, is less likely to be considered simply a prepaid forward contract for U.S. federal income tax purposes.

The IRS has defined a forward contract as a bilateral, executory contract where one party agrees to purchase an asset on a future date for a specific forward purchase price, payable at that future time.[522] The IRS further added that a *prepaid* forward contract has the same terms, but provides for the purchase

[515] Interestingly, Treasury's explanation of the proposal to expand §1058 also proposes clarifying that certain fixed-term loans are subject to the nonrecognition rules for securities loans if they otherwise meet the §1058 requirements. *See General Explanations of the Administration's Fiscal Year 2023 Revenue Proposals*, Department of the Treasury, 96 (Mar. 28, 2022).

[516] Jake Frankenfield, *Initial Coin Offering (ICO): Coin Launch Defined, with Examples,* Investopedia (Aug. 18, 2022).

[517] Katelyn Peters, *What is a Simple Agreement for Future Tokens (SAFT) in Crypto?* Investopedia (July 1, 2021).

[518] Tokens, here, is used colloquially as a term encompassing a broad array of digital assets.

[519] The definition of "network launch" may vary and is sometimes referred to as "main net launch" but typically it refers to the point in time when a protocol is launched and accessible. In many cases, this will coincide with the date that the token is minted or created. Some SAFTs may also include references to a protocol's decentralization and breadth of control in describing the network launch. *See generally* Joel Frank and Ryan Glenn, *What is a Mainnet in Cryptocurrency,* BeInCrypto (June 8, 2023).

[520] When the funds are required to be returned to the buyer, if the assets of the token issuer are insufficient to pay the buyer (and token buyers under other SAFTs) in full, the SAFT may provide for the remaining assets of the token issuer to be distributed pro rata among the buyers in proportion to the funds they would otherwise be entitled to receive.

[521] For a discussion of Notice 2014-21, see III.B., above.

[522] Notice 2008-2.

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price to be paid in advance of future delivery or cash settlement rather than being paid in the future.[523]

Commentary: Applying these definitions to SAFTs, typical SAFTs are bilateral, executory contracts where one party (the buyer) agrees to purchase tokens on a future date (e.g., upon the occurrence of a network launch) for a specific forward purchase price (i.e., the token purchase price). SAFTs also contain the prepaid element in that the purchase price for the tokens is paid in advance. As mentioned, given the application of the definition of a prepaid forward contract in the context of SAFTs, the parties to the SAFTs will often agree to treat the instruments as prepaid forward contracts for U.S. federal income tax purposes.

Unlike many prepaid forward contracts that reference, for example, securities, the tokens that are referenced in a SAFT are often still in development when the SAFT is entered into. There are authorities, however, that provide an executory derivative contract such as a forward contract or an option may reference property that has not yet been issued. For example, in *Federal Home Loan Mortgage Co. v. Commissioner*,[524] the Tax Court held that the taxpayer's prior approval of contracts to purchase mortgages from loan originators in exchange for a nonrefundable commitment fee were in substance options, even when the underlying mortgages had not yet been originated at the time the prior approval purchase contracts were executed.

Another consideration that generally applies to prepaid forward contracts is whether there has been a current sale of the underlying property.[525]

Commentary: In the context of SAFTs where the underlying tokens are still in development, it is unlikely that the SAFT would be viewed as a current sale of the tokens.[526] As a result, entering into a contract to sell rights for future tokens is likely not a realization event with respect to the tokens. In such situation, however, it is worth considering whether the SAFT could potentially be viewed as entitling the buyer to services (i.e., the development of the token) to be performed by the token issuer.

For completeness, like typical prepaid forward contracts, SAFTs generally are not considered debt instruments for U.S. federal income tax purposes. Like other prepaid forward contracts, a typical SAFT does not provide for an unqualified obligation to pay a sum certain, which largely is regarded as one of the essential features of indebtedness for U.S. federal income tax purposes.[527]

If the buyer receives equity for no additional consideration when it enters into the SAFT and makes the upfront payment, the SAFT and the equity interest are likely viewed as an investment unit for U.S. federal income tax purposes if the SAFT and the equity are separately transferrable.[528] As result, it generally is necessary to allocate the upfront payment and any other consideration between the SAFT and the equity interest.[529]

4. *Issuer-Side Considerations*

If a SAFT is characterized as a prepaid forward contract where there is not a current sale of the underlying tokens for U.S. federal income tax purposes, the open transaction doctrine may be applicable when the token issuer is determining when to account for the upfront payment for U.S. federal income tax purposes.

Taxation generally is imposed on the realization of gain or loss,[530] and a taxpayer must be able to ascertain both an amount realized and an adjusted basis of the property that was subject to a realization event to determine the amount of such gain or loss.[531] The open transaction doctrine may apply to certain financial transactions when either the amount realized, or the adjusted basis, needed to calculate gain or loss under §1001 is not known at the time the transaction is entered into.[532] Under the open transaction doctrine, gain or loss is not realized until the missing amount realized or adjusted basis is known and the transaction is properly closed.[533]

Commentary: In the context of a SAFT, at the time that the SAFT is entered into, there is uncertainty with respect to the basis of property to be delivered by the token issuer under the executory contract. As a result, pursuant to the open transaction doctrine, the token issuer may not be required to recognize gain or loss or otherwise include the prepayment amount in income upon the execution of the SAFT. If the open transaction doctrine is applicable, the token issuer would likely recognize gain or loss upon settlement of the SAFT, either through delivery of the tokens (at which time the issuer's tax basis in the tokens should be known) or cash settlement. Whether such gain or loss is capital or ordinary will depend on whether the tokens are capital or ordinary assets in the hands of the token issuer.

Even if the SAFT is cash settled rather than settled through the delivery of tokens, the character of any gain or loss will similarly depend on whether the underlying tokens are considered capital assets in the hands of the token issuer. In this respect, §1234A provides that "[g]ain or loss attributable to the cancellation, lapse, expiration, or other termination of a right or obligation … with respect to property which is (or on acquisi-

[523] Notice 2008-2. *See* Rev. Rul. 2003-7.

[524] 125 T.C. 248 (2005).

[525] For a discussion of the U.S. federal income tax considerations with respect to prepaid forward contracts, see 188 T.M., *Taxation of Equity Derivatives.*

[526] As a general rule, ownership transfers when the buyer has control over the asset. As a result, entering into a contract to sell rights future tokens is likely not a realization event with respect to the tokens. In such situation, however, it is worth considering whether the SAFT could potentially be viewed as entitling the buyer to services (i.e., the development of the token) to be performed by the token issuer.

[527] *See United States v. South Georgia Railway*, 107 F.2d 3, 5 (5th Cir. 1939); *Commissioner v. O.P.P. Holding Corp.*, 76 F.2d 11, 12 (2d Cir. 1935).

[528] *See, e.g.*, Rev. Rul. 2003-97, Rev. Rul. 88-31 (discussing investment units). For a further discussion of these authorities and investment units, see 188 T.M., *Taxation of Equity Derivatives.*

[529] General principles for computing gain or loss on the sale.

[530] *Lucas v. Am. Code Co.*, 280 U.S. 445, 449 (1930).

[531] §1001(a); Reg. §1.1001-1(a). Section 1001(a) provides that gain from the sale or other disposition of property is calculated as the excess of the amount realized therefrom over the adjusted basis of the property, and loss is calculated as the excess of the adjusted basis of the property over the amount realized.

[532] *Burnet v. Logan*, 283 U.S. 404 (1931) (court applied open transaction doctrine in the context of the sale of stock for contingent consideration).

[533] *Estate of McKelvey*, 148 T.C. 312 (2017). The Fifth Circuit described the open transaction doctrine as a "rule of fairness designed to ascertain with reasonable accuracy the amount of gain or loss realized upon an exchange, and, if appropriate, to defer recognition thereof until the correct amounts can be accurately determined." *Dennis v. Commissioner*, 473 F.2d 274, 285 (5th Cir. 1973), aff'g 57 T.C. 352 (1971). For a further discussion of the open transaction doctrine, see 562 T.M., *Capital Assets — Related Issues.*

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tion would be) a capital asset in the hands of the taxpayer … shall be treated as gain or loss from the sale of a capital asset."

5. Buyer-Side Considerations

Commentary: Accordingly, when analyzing the SAFT from the buyer's perspective, if the SAFT is treated as a prepaid forward contract, the buyer likely does not recognize gain or loss upon settlement of the SAFT if the SAFT is settled through delivery of the tokens. Longstanding case law and rulings do not treat the holder of rights to acquire property as realizing gain or loss when the holder receives the referenced property in satisfaction of those rights.[534] Rather, under such authorities, the buyer would have a tax basis in the tokens equal to the consideration paid under the SAFT (e.g., the upfront payment),[535] and the buyer would recognize gain or loss when it disposes of the tokens.[536] If, however, the SAFT is cash settled, the buyer generally would recognize gain or loss upon settlement.[537]

H. Decentralized Autonomous Organizations (DAOs)

1. Introduction

A Decentralized Autonomous Organization (DAO) is an organization without a centralized authority that operates according to encoded rules constructed by its members.[538] The organization may or may not have legal form and is sometimes represented by another entity as an agent or legal representative. DAO governance is generally created by its members, who establish the rules and operational mechanisms of a DAO and encode them to a public blockchain using smart contracts, which operate when established criteria are met. This automates the administrative processes and decision-making of the DAO without the need for human intervention on behalf of the DAO. In general, such smart contracts cannot be changed except by a decision of the community. Thus, this model allows for transparency in operations, ultimately restricting the possibility for human error or hidden manipulation in the management of the organization.

In connection with the creation of a DAO, a governance protocol having specified control rights with respect to the DAO will generally be deployed together with governance tokens that allow holders to participate in the ongoing governance of the DAO. In general, DAOs are created when the underlying code for the smart contract has been deployed to a public blockchain, thus enabling the smart contracts to become operational. Governance tokens may be issued by a DAO in exchange for cryptocurrency (e.g., ETH) to raise funds for various operations and activities. Governance tokens may also be airdropped, used to fund grants, or pay rewards, and incentives to further establish the DAO and the underlying open-sourced code.[539]

Governance tokens generally allow holders to participate in the management and operation of the DAO by allowing holders to submit proposals and, if such proposals are accepted, to vote on such proposals. The proposal/voting arrangements may vary widely among DAOs — some arrangements may allow holders to influence changes in prospective iterations of a decentralized application, whereas other arrangements may solely enable influence in the distribution or use of DAO assets. Furthermore, there is a wide variety of DAO governance voting mechanisms. Some DAOs may use on-chain voting mechanisms that directly deploy changes to the protocol (and/or treasury) whereas others may utilize a less decentralized "snapshot" vote which serves as an advisory or polling tool for the parties that can directly influence the protocol or related governance.

DAOs have been formed for multiple functions, including the following:[540]

- Protocol DAOs — represent blockchain protocols and applications that involve different functionalities with respect to decentralized financial services, such as lending/borrowing, exchanging cryptocurrencies, and processing blockchain transactions.
- DAO Operating Systems — provide software services that assist in the creation of DAOs.
- Investment DAOs — pool funds to make investments and may invest in early-stage decentralized applications.
- Grants DAOs — funds projects and dApps, which may be linked to a specific protocol or a more general decentralized application.
- Collector DAOs — fractionalize collectibles and may pool funds to invest in collectible items such as art (including NFTs).
- Service DAOs — contracts with service providers.
- Social DAOs — builds social communities with shared interests.
- Media DAOs — produce uncensored media that is not influenced by advertisers.
- Philanthropy DAOs — provides social responsibility initiatives.
- Entertainment DAOs — creates an entertainment project and the community may make decisions on the direction of the project.

Commentary: With respect to Protocol DAOs, one U.S.-based variation typically involves a U.S. corporation (Labs Company) that develops and releases a blockchain-based de-

[534] *See Helvering v. San Joaquin Fruit & Inv. Co.*, 297 U.S. 496 (1936) (holding that a taxpayer did not realize gain with respect to a valuable option to acquire land when the option was exercised and ownership of the land was received); Rev. Rul. 78-182.

[535] §1012(a). See 560 T.M., *Income Tax Basis: Overview and Conceptual Aspects*, for a discussion of tax basis upon the exercise of an option (i.e., another type of contract right to acquire property that may be physically settled).

[536] The buyer's holding period in the tokens generally begins the day after the delivery of the tokens under the SAFT absent a provision that tacks the holding period attributable to the SAFT.

[537] *See* Reg. §1.1001-1(a) (providing for the realization of gain or loss upon the conversion of a property right into cash). Upon the cash settlement of the SAFT, whether the buyer has an ordinary or a capital gain or loss generally will depend on whether the underlying tokens would have been ordinary or capital assets in the hands of the buyer. §1234A.

[538] *See* Nathan Reiff, *Decentralized Autonomous Organization (DAO): Definition, Purpose, and Example*, Investopedia (Sept. 30, 2023).

[539] *See DAO governance models: A beginner's guide*, Cointelegraph.

[540] This limited list is provided in *Types of DAOs and how to create a decentralized autonomous organization*, Cointelegraph.

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centralized application (Protocol) but retains control over certain aspects of the underlying smart contracts to oversee the Protocol's operation. This arrangement allows the Labs Company to test and add new features while the Protocol gains an initial user base. After some period of time, the Labs Company will typically deploy a governance protocol and distribute corresponding governance tokens. The governance tokens are generally distributed to Labs Company employees, shareholders and advisors. In addition, governance tokens may be distributed pursuant to the exercise of warrants or to satisfy obligations under SAFTs, as well as airdropped to users of the Protocol. The distribution of the governance tokens is intended to further distribute and decentralize control of the Protocol from the Labs Company, thereby creating the DAO.[541]

In addition to the transfer of governance tokens to the various parties described above, the DAO itself often retains a significant portion of governance tokens, creating the "DAO treasury." The DAO treasury may also hold proceeds from the sales of governance tokens in the form of ETH (or the native cryptocurrency of the blockchain on which the DAO exists), stablecoins, other fungible tokens, or NFTs in some circumstances. The holders of the governance tokens may have the ability to direct transfers from the DAO treasury pursuant to proposal/voting arrangements. However, while the DAO is intended to be autonomous, one or more persons or entities may have signatory authority over the wallets that hold the assets comprising the DAO treasury. The approvals through the voting mechanism vary by protocol with some being a majority, others requiring more and others requiring less. The resulting actions of the vote may be self-executing via smart contract or they may require the actions of humans with the right technological admin rights to either update the protocol or move treasury assets.

One purpose of the DAO treasury is to foster the development and growth of the decentralized ecosystem surrounding the Protocol. For example, DAO treasury governance tokens and other property may be used as: (i) rewards for the use of, or incentives to use, the Protocol; (ii) grants to developers and code writers for projects that have a positive impact on the Protocol (such as through the creation of applications to run on top of the blockchain); (iii) rewards for user activity; and (iv) fund positions in decentralized exchange liquidity pools[542] to provide a means for third-parties to acquire or sell the governance tokens. In such case, the property of the DAO treasury is intended to be used to motivate persons to grow the Protocol's ecosystem. Further, in certain instances, a DAO may generate revenue. For example, the DAO may begin to charge transaction-based fees for the use of the Protocol. Moreover, the DAO may dispose of or diversify its assets, typically in exchange for other digital assets.

Thus, in most instances, the membership of a DAO is comprised of the holders of governance tokens. As mentioned, a holder of a governance token generally can submit and vote on proposals and thereby participate in the management and operation of the DAO. However, the rights associated with a specific governance token can vary widely — some may simply provide the holder with a non-binding advisory vote relating to the operations of a DAO, whereas other governance tokens may provide the holders with influential votes that can direct transfers of funds housed in the DAO treasury. In addition, some governance tokens may provide a holder with a right (implicitly or explicitly) to current or liquidating distributions from the DAO or allow holders to submit and vote on proposals relating to distributions from the DAO. As such, it is important to understand the rights that are associated with any particular Governance Token.

In certain situations, as an alternative or precursor to a Protocol DAO, the Labs Company could create a U.S. or non-U.S. foundation (Foundation) to facilitate the decentralization of the Protocol.[543] The Foundation is intended to operate independently from the Labs Company with its own board of directors and management and further develop the Protocol for the benefit of the wider community. Governance tokens relating to the Foundation are frequently distributed, which generally provides holders with input with respect to the Protocol and related activities of the Foundation. Thus, while the existence of a Foundation is one centralized element of a Protocol (moving away from pure decentralization), the Foundation can be helpful when it comes to administrative items like signing a contract with a GitHub repository or engaging a CPA to file a tax return. A select few states have suggested examples of Foundation-like legal entities to support this notion, which may recognize DAOs as LLCs or an unincorporated non-profit association (UNA).[544]

The following is intended to be a general high-level description of certain U.S. federal income tax considerations with respect to DAOs, holders of governance tokens, Labs Companies, and Foundations.

2. *Commentary on Potential U.S. Federal Income Tax Classification of a DAO*

As mentioned, a DAO is comprised of a series of smart contracts and is not, in itself, a legal entity organized under the laws of any particular jurisdiction. In addition, the series of smart contracts that comprise any particular DAO do not generally set forth laws under which the DAO is intended to be governed. As such, a DAO does not squarely fit into an existing form of legal entity classification, including, for example, a partnership, corporation, or trust. As a result, the legal entity classification for U.S. federal income tax purposes will depend on the facts and circumstances of each DAO.

The first question is whether the DAO is a separate entity for U.S. federal income tax purposes under Reg. §301.7701-1.

[541] See below for a discussion regarding the formation of a foundation in connection with the creation of a DAO.

[542] See VII.E., above, for additional discussion on decentralized exchanges and liquidity pools.

[543] *Commentary:* To the extent a DAO and/or its treasury is housed within a formal entity, a non-shareholder entity is generally preferred. In one sense, this limits risk associated with equity owners of the holding entity from distributing "DAO assets" to themselves. Common U.S. entity types that are of interest to DAOs include non-shareholder corporations, Foundations, and UNAs.

[544] For state specific guidance, see the State Corporate Income Tax Navigator (State Series).

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• For this purpose, being recognized as an entity under local law is not dispositive and a contractual arrangement could result in an entity being deemed to exist.[545]

• If the DAO is not treated as a separate entity, then any activities involving a DAO, and any corresponding U.S. federal income tax items, could be attributed to persons related to the DAO (e.g., the Labs Company, signatories on wallets related to the DAO, holders of the governance tokens, an agent or legal representative).

If the DAO is a separate entity, the next question is whether the DAO is a trust or a "business entity."

• Under Reg. §301.7701-2, a "business entity" is defined as any entity recognized for U.S. federal income tax purposes that is not classified as a trust (under Reg. §301.7701-4) or otherwise subject to special treatment under the Code.

• Under Reg. §301.7701-4, in general, a "trust" is an arrangement created either by a will or by an *inter vivos* declaration for the purpose of protecting and conserving properties for the beneficiaries under the ordinary rules applied in chancery or probate courts. A trust that carries on a profit-making business may be more properly classified as a business entity. An investment trust will not be classified as a trust if there is a power under the trust agreement to vary the investment of the holders of trust certificates.

• Given the activities of a DAO, which may include facilitating financial transactions or acquisitions/dispositions of property, a DAO participating in profit-making activities ought not be classified as a trust.

If the DAO is classified as an entity for U.S. federal income tax purposes, does the DAO have any owners?

• Potential owners include holders of governance tokens, signatories on the DAO wallet, the Labs Company or another founding team, a Foundation, or some combination thereof.

• With respect to holders of governance tokens, any rights of the holders to manage the affairs of the DAO or receive distributions from the DAO may indicate that the governance tokens are equity interests in the DAO.[546]

• With respect to the Labs Company, additional consideration should be given to whether the relationship between the Labs Company and the DAO could be viewed as providing specific voting or economic rights with respect to the DAO, such that the Labs Company could be viewed as holding an equity interest in the DAO.

• With respect to the signatories of the DAO wallet, such persons could be viewed as ultimately controlling the assets of the DAO.

• It is also possible that the DAO may not be treated as having any owners and, instead, could be treated as a memberless or shareholder-less entity. In that case, a deemed business entity would own the assets themselves. However, non-stock corporations would normally need to be legally organized under the laws of a particular jurisdiction and, as mentioned above, there may be persons related to a DAO to which ownership could be attributed.

If the DAO is a "business entity" for U.S. federal income tax purposes, then the DAO may be treated as a partnership or a corporation.

• Such status initially would depend on whether the DAO was treated as a domestic or foreign entity. Since the DAO is not a legal entity, and if the DAO smart contracts do not provide the laws under which the DAO is intended to be governed, the domestic or foreign status generally would be based on the surrounding facts and circumstances.

• If the DAO is treated as a domestic entity, and the DAO is treated as having more than one owner, the DAO would be classified as a partnership and could elect to be classified as a corporation, in each case, for U.S. federal income tax purposes.

• If the DAO is treated as a foreign entity, and any owners are treated as having unlimited liability with respect to the DAO, the DAO would be classified as a partnership and could elect to be classified as a corporation, in each case, for U.S. federal income tax purposes. If all owners are treated as having limited liability, the DAO would be classified as a corporation and could elect to be classified as a partnership, in each case, for U.S. federal income tax purposes.

• In making these determinations, it is important to determine the owners of the DAO and whether they have limited or unlimited liability. As discussed below, the identity of the owners of a DAO may not be clear. It is also unclear whether those owners have limited liability, or even the law pursuant to which such a determination would be made. For example, does it need to be determined whether the owners have limited liability under the law of every country in the world?

• If the DAO defaults to partnership classification for U.S. federal income tax purposes, it may nevertheless be treated as a corporation for U.S. federal income tax purposes if it is classified as a "publicly traded partnership" under §7704.

• If the DAO were to be viewed as a foreign corporation for U.S. federal income tax purposes, and potentially a PFIC, one may consider relevance of QEF elections, cumulative income recognition on distributions, subpart F ap-

[545] Reg. §301.7701-1(a)(2) provides that: (i) a joint venture or other contractual arrangement may create a separate entity for U.S. federal income tax purposes if the participants carry on a trade, business, financial operation, or venture and divide the profits therefrom; while (ii) a joint undertaking merely to share expenses does not create a separate entity for U.S. federal income tax purposes; and (iii) mere co-ownership of property that is maintained, kept in repair, and rented or leased does not constitute a separate entity for U.S. federal income tax purposes.

[546] In the context of corporation ownership, the IRS and courts have considered the so-called "Himmel factors" in determining whether an instrument or arrangement is indicative of stock ownership (i.e.: (i) the right to vote, and thereby exercise control; (ii) the right to participate in current earnings and accumulated surplus; and (iii) the right to share in net assets on liquidation or dissolution). *Himmel v. Commissioner*, 338 F.2d 815, 817 (2d Cir. 1964), cited with approval in Rev. Rul. 81-289 and in Rev. Rul. 75-502. In the context of partnership ownership, the courts have considered factors such as … [Luna]. *Luna v Commissioner*, 42 T.C. 1067 (1964).

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plicability, and potential for the DAO to be viewed as a controlled foreign corporation for U.S. federal income tax purposes.[547]

Commentary: Given the broad spectrum by which DAOs operate, it is not clear if, and to whom, the above framework may be applicable. For instance, in the case of a DAO whose operations and use of treasury is purely driven by an on-chain governance process, ownership could be directly attributable to the governance token holders. Contrast this with a DAO whereby a select group holds the signing keys for a DAO treasury, in which case perhaps the risk of ownership is attributed to this subset.

Guidance as it relates to DAOs has yet to be issued by the IRS. As one may infer, the potential treatment of DAOs can be extremely broad. Governance token holders should give consideration as to how this property may be viewed for U.S. federal tax purposes, while also noting this treatment could vary broadly, depend on how the DAO operates. These topics may be considered in whether a holder of governance tokens treats these assets as general property, or equity in some type of entity.

3. *Potential U.S. Federal Income Tax Consequences of DAO Activities*

Activities of a DAO can result in various taxable transactions that may be subject to U.S. federal income tax and reporting, either at the level of the DAO or at the level of any owners of a DAO.

a. *Commentary on DAO Treasury Activities*

A DAO may have business activities related to a Protocol that generates fees. For instance, a DAO may "control" a dApp that automatically charges users a fee which is directed to the DAO treasury. In some cases, this revenue may be accessible or allocated directly to holders of governance tokens. In other cases, it may simply increase the funds available for the DAO pursuant to its existing governance structure.

Alternatively, a DAO may hold investment or other assets that are acquired and subsequently disposed of. In this regard, cryptocurrencies (e.g., ETH) are treated as property for U.S. federal income tax purposes and the receipt and disposition of ETH generally would result in taxable barter transactions.

The DAO may also hold a significant number of its own governance tokens in its treasury, which would be deployed as determined by the DAO's governance process. Example proposals could include:

- A proposal to diversify DAO treasury holdings into cryptocurrency, stablecoins, or other digital assets.
- A proposal to deploy funds to a decentralized exchange in order to make a market for third-parties to purchase and sell the token. [548]
- A proposal to use funds to pay grants for platform development, marketing, legal and other services for the DAO.

The aforementioned transactions would generally result in a taxable transaction for U.S. tax purposes. A big question that arises is whether there is an entity accounting for this activity of the DAO treasury, and in compliance with tax return filings and other information reporting and withholding considerations, where applicable. Further — some of these activities may result in DAO activities in a physical jurisdiction, such as a billboard marketing campaign in the United States. Given that determining the jurisdiction in which a DAO is operating or where its owners may reside may be difficult for on-chain activities, additional emphasis may be given to these physical world activities in which a DAO may participate.

If the DAO is classified as a foreign corporation and engages in a U.S. trade or business, the DAO would be subject to U.S. federal income tax on income which is effectively connected to such a U.S. trade or business. Similarly, if the DAO is classified as a partnership and engages in a U.S. trade or business, then non-U.S. persons would be subject to U.S. federal income tax with respect to their allocable share of partnership items and would be required to file a U.S. federal income tax return, and the DAO would have withholding obligations with respect to the non-U.S. persons.

- The existence of a U.S. trade or business is generally determined on the basis of the facts and circumstances of each case. A U.S. trade or business would involve activities by the DAO, including activities of certain agents, that take place in the United States and are considerable, continuous and regular, and the primary purpose of which is to generate income.
- Relevant facts and circumstances may include the location of persons that facilitate the activities and operations of a DAO, as well as the location of servers and other relevant items through which a DAO conducts its operations and activities.

b. *Commentary on DAO and Governance Token Holder Transactions*

With respect to governance tokens, the U.S. federal income tax treatment generally would depend on whether the governance tokens were treated as equity of the DAO.

If treated as equity, then the transfer of governance tokens by the DAO in exchange for property generally would not be a taxable transaction to the DAO (e.g., §721 and §1032). However, the transfers of property by persons in exchange for governance tokens could be taxable transactions for such persons, unless the transfers qualify for non-recognition treatment (e.g., §721 and §351, but consider §721(b) and §351(e), relating to transfers investment companies). Further, transfers of appreciated property by a U.S. person to a foreign DAO for governance tokens may result in recognition to the transferor.

In contrast, if the governance tokens were not treated as equity of the DAO, then the transfer of governance tokens by the DAO in exchange for property generally would be a taxable transaction for both the DAO and the property transferor (to the extent the transferor exchanged appreciated property for the governance tokens).

Distributions (either current or liquidating) from a DAO could also have tax consequences to both the DAO and its

[547] See IX., below, for additional information on international tax considerations.

[548] See VII.E.3., above, for further discussion on decentralized exchanges.

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members, as would redemptions (i.e., buybacks) of governance tokens.

If the DAO is classified as a foreign corporation that has shareholders, U.S. shareholders could have certain adverse U.S. federal income tax consequences.

- The DAO could be treated as a "controlled foreign corporation" under §957. In such case, certain U.S. shareholders could have "subpart F income" inclusions under §951 or be subject to the "global intangible low-taxed income" (GILTI) rules of §951A, in each case, based on the operations of the DAO.

- The DAO could also be treated as a "passive foreign investment company" under §1297. In such case, certain U.S. shareholders could have interest charges and ordinary income with respect to distributions by the DAO or dispositions of equity interests of the DAO (unless certain elections are made, if available).

4. Commentary on Potential U.S. Reporting Requirements

If a DAO is subject to U.S. federal income tax (including if it is a partnership or a foreign corporation and has a U.S. trade or business), the DAO would have to file a U.S. federal income tax return. This raises several potential issues.

If a partnership, the partners of the DAO would be subject to U.S. federal income tax. In addition, even if the DAO did not have a U.S. trade or business or any U.S.-source income, U.S. taxpayers that are partners of the DAO would nevertheless be subject to U.S. tax on their allocable share of partnership items.

Does the DAO have the capability to prepare tax returns and identify equity owners?

- For example, if the DAO is classified as a partnership for U.S. federal income tax purposes, IRS Schedule K-1s would need to be provided to partners and included in the DAO's filing of IRS Form 1065, *U.S. Return of Partnership Income.*

- If the DAO is classified as a corporation for U.S. federal income tax purposes, the DAO would need to file IRS Form 1120, *U.S. Corporation Income Tax Return.*

- In addition, earnings (whether or not distributed) and distributions made to equity owners may be subject to U.S. withholding tax.

Payments to service providers and/or grant recipients using DAO treasury assets may result in an information reporting filing obligation. Payments for services provided in the United States may be subject to Form 1099 or Form 1042 filings, and potentially related withholding or backup withholding.[549]

Commentary: If a DAO treasury is controlled directly through governance token votes, reporting and withholding implications may need to be considered in advance, and included in the proposal to account for any necessary tax withholdings, and to ensure appropriate tax documents have been collected (e.g., W-8s, W-9s).

5. Commentary on Foundations

As discussed above, in certain situations, as a precursor to, or in conjunction with the launch of a Protocol DAO, the Labs Company may create a Foundation to facilitate the decentralization of the Protocol. In general, U.S. federal income tax considerations exist with respect to the formation of a Foundation and the operation of a Foundation.

As an initial matter, a Foundation is typically formed as an entity under the laws of a non-U.S. jurisdiction (e.g., Cayman Islands foundation law), with such entity classified as a corporation for U.S. federal income tax purposes. The Foundation may also be formed in the United States as a taxable non-stock corporation, a tax-exempt entity, or an unincorporated nonprofit association. With respect to the formation of a Foundation, the tax consequences to a Labs Company and a Foundation would need to be considered.

- For example, would a Labs Company recognize gain with respect to the transfer of the Protocol and related assets to a Foundation under §1001 (even if no consideration is received), and would a Labs Company be entitled to a deduction under §162?

- The arrangements between a Labs Company and a Foundation would need to be analyzed to determine whether a Labs Company could be treated as having a voting and/or economic interest in a Foundation (and any corresponding tax consequences, such as any CFC status of a Foundation).

- If a Foundation is treated as having a U.S. trade or business, consideration would need to be given to whether a Foundation could have income with respect to the receipt of the Protocol and related assets.

For operations of a Foundation, and assuming the Foundation is reporting the activities of the DAO treasury as its own, the tax consequences to a Foundation and any potential owners would need to be considered.

- If a Foundation is treated as having a U.S trade or business, a Foundation may be required to pay U.S. federal income tax on a net basis and file U.S. federal income tax returns.

- If governance tokens relating to a Foundation are treated as equity of a Foundation for U.S. federal income tax purposes, holders of the governance tokens need to consider the U.S. federal income tax consequences of being a "shareholder" of a Foundation. For example, a non-U.S. Foundation could be a CFC or a PFIC.

6. Conclusion

In conclusion, the potential U.S. federal income tax considerations for governance token holders and DAOs are numerous and will vary greatly as a result of the specific rights and obligations associated with any given governance token. Although DAOs may represent something as simple as a small online social club, some may have the potential of being an operating trade or business. As with many other areas of crypto, the broad use of the term DAO necessitates a thorough understanding of a taxpayer's association with a DAO to determine the appropriate U.S. federal income tax treatment thereof.

[549] See VIII.D., below, for further discussion on information reporting as it relates to services.

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I. Wrapped and "Derivative" Tokens

Ownership of a digital asset generally means that the owner's entitlement to the digital asset is recorded on the asset's native blockchain ledger (e.g., ownership of BTC is recorded on the Bitcoin blockchain ledger). In certain circumstances, however, owners of digital assets desire to transact in a digital asset without recording changes in the ownership of the asset on the digital asset's native blockchain. For example, an owner of BTC may desire to apply the market value of the BTC to transactions, such as decentralized finance, being recorded on the Ethereum blockchain ledger. If the application of the BTC's market value to the transaction had to be reflected only on the Bitcoin blockchain through a transfer of BTC on that blockchain, the decentralized finance application would not be able to both include the value of the BTC in its transactions and function on only a single blockchain (in this example, Ethereum). To allow owners of digital assets native to one blockchain to participate fully in decentralized finance applications that record transactions on other blockchains, market participants have created "wrapped" tokens or derivative tokens.[550]

Wrapped Bitcoin (WBTC) is a prominent example of a wrapped token. WBTC is a fungible token recorded on the Ethereum blockchain that is supported, on a 1-to-1 basis, by BTC held by participating custodians. A BTC holder creates WBTC by transferring BTC to a custodian, which issues the corresponding WBTC to the holder. The custodians commit not to re-transfer the BTC on the Bitcoin blockchain and to maintain the 1:1 ratio of WBTC to BTC held by custodians. This arrangement permits effective transfers of the BTC on the Ethereum blockchain through transfers of the WBTC token. That is, a market participant who acquires WBTC on the Ethereum network can return the WBTC to a custodian and receive BTC. WBTC, in its reliance on the integrity of participating custodians and the 1:1 WBTC-to-BTC exchange ratio, bears resemblance to the American depositary receipt (ADR) programs operated by securities custodians to permit shares of non-U.S. corporations that are primarily traded overseas to be traded on U.S. securities exchanges. Similar to holders of ADRs, holders of WBTC are often thought of as the beneficial owners of the BTC held by the custodians. The federal income tax characterization of any particular wrapped token, however, requires analysis of the facts and circumstances of that token.

Derivative tokens typically address a different transferability issue with respect to digital assets. Specifically, in proof-of-stake blockchain networks, a staking holder typically is unable to transfer its assets while they are staked.[551] Derivative tokens, sometimes also called "liquidity tokens," "staking derivatives" or "liquid staking tokens," attempt to create transferability with respect to non-transferable staked assets by replacing the locked staked assets with a second token representing an interest in the staked assets. Typically, the derivative token is issued by a DAO or other staking pool operator that manages the staking of a holder's assets and states its intention to return the staked assets to the holder in exchange for the derivative token in the future. Examples of such tokens in the marketplace include tokens known as "mSOL" on the Solana blockchain and "StETH" on Ethereum.

When a holder of a proof-of-stake digital asset transfers its asset to a staking pool in exchange for a derivative token, questions arise as to how to characterize the relationship between the holder and the staking pool, and as to how to characterize the transferable derivative token acquired by the holder. While the characteristics that affect the answers to these tax characterization questions may vary from case to case, there are a few characterizations that are worth considering in most cases. One possible characterization is that, as mentioned above with respect to a wrapped token, a staking derivative token represents a beneficial ownership interest in the staked asset. Under such characterization, there likely would be no disposition of the staked asset upon transfer of the asset to the staking pool because the holder continues to be considered the owner of the staked asset. In addition, in such case, staking rewards to which the staking derivative token entitles the holder may be considered to be acquired directly by the holder. Another possible characterization is that the staking derivative represents a derivative interest in, but not ownership of, the staked asset. In such case, ownership of the staked asset presumably would have been acquired by the staking pool operator, and "staking rewards" acquired by the owner of the staking derivative may be better viewed as payments from the staking pool operator under the derivative rather than as staking rewards acquired directly by the derivative token holder. If ownership of the staked asset transfers from the original holder to the staking pool operator, a further question arises as to whether such a transfer would be better characterized as a taxable disposition or as a non-taxable transaction such as a crypto lending transaction (see VII.F., above) for discussion of crypto lending transactions). Considerations that may aid in determining whether a particular staking derivative token represents ownership of the staked assets or is better viewed as a derivative transaction include: (i) the nature of the contractual or other restrictions on the staking pool operator's actions with respect to the staked asset; (ii) the period of time in which the holder can redeem the derivative token for the staked asset; (iii) the pool operator's representations with respect to the derivative token; (iv) the holder's continuing interests in depreciation and appreciation with respect to the token; and (v) whether the holder retains the ability to control how governance or other votes with respect to the token are made. The tax classification of a liquid staking token may also influence revenue recognition considerations of the related staking rewards for the holder, especially due to Rev. Rul. 2023-14, in which the IRS has provided that when a taxpayer receives cryptocurrencies as a result of a proof-of-stake staking award, the additional cryptocurrency post validation is included in the taxpayer's gross income in the tax year in which the taxpayer gains dominion and control over the validation rewards.[552]

[550] For the definition of a "wrapped token," see the Glossary of Terms in the Worksheets, below.

[551] See VII.C., above, for additional discussion on staking.

[552] Rev. Rul. 2023-14.

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VIII. Information Reporting and Tax Return Compliance

A. Introduction

The information reporting requirements applicable to digital assets are evolving at a rapid pace, both in the United States and globally. The Organisation for Economic Co-operation and Development (OECD) created the Crypto-Asset Reporting Framework (CARF) that provides a viable platform to trace and track digital assets.[553] With passage of the Infrastructure Investment and Jobs Act (Infrastructure Act),[554] the United States passed its first codified tax law focusing on information reporting of digital assets.[555] Final regulations issued in 2024 under these provisions (hereinafter, "2024 Final Regulations") cover the reporting by certain custodial U.S. brokers of sales and other dispositions of digital assets by U.S. persons.[556] Further regulations are anticipated addressing reporting by non-custodial industry participants, digital asset transfers, sales by non-U.S. brokers, and sales on behalf of non-U.S. customers.[557] However, outside of the digital asset broker context, the burden of extrapolating from existing law to determine the appropriate withholding and reporting treatment, payments, and other transactions remains.

As discussed in further detail in III.B., above, in Notice 2014-21, the IRS has expressed the view that "virtual currency" ("a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value")[558] is treated as personal property for tax purposes, and the general tax principles that apply to transactions using personal property apply to transactions using virtual currency.[559] Consequently, transactions using virtual currency can trigger the same Form 1099 series reporting obligations as other personal property would.[560] Notice 2014-21 specifically references Form W-2, *Wage and Tax Statement*, Form 1099-MISC, *Miscellaneous Information*, Form 1099-K, *Payment Card and Third Party Network Transactions*, and Publication 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*.[561]

The Infrastructure Act amended §6045, §6045A, and §6050I to include digital assets under certain existing information reporting laws.[562] Section 6045 requires brokers to report gross proceeds, currently on IRS Form 1099-B, *Proceeds From Broker and Barter Exchange*. Section 6045A requires brokers to share cost basis information when securities are transferred. Section 6050I requires businesses to report receipts of cash in excess of $10,000, currently on IRS Form 8300, *Report of Cash Payments Over $10,000 Received in a Trade or Business*.[563] The amendments expand the definition of brokers required to report by including "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person."[564] Digital assets ("any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology as specified by the Secretary")[565] are now defined, and included as covered securities for reporting purposes.[566] The amendments require a broker to make a transfer statement for any transfer of digital assets made to an account not maintained by, or an address not associated with, a broker.[567] Finally, the amendments require digital assets to be treated as cash for the purpose of reporting receipts of cash in excess of $10,000.[568] The 2024 Final Regulations were promulgated under §6045 for reporting by U.S. custodial brokers.[569] The IRS announced transitional guidance under §6045A[570] and §6050I[571] with respect to the digital assets information reporting rules implemented by the Infrastructure Act.

As discussed in VIII.F., below, digital asset broker reporting begins in 2026 on new Form 1099-DA, *Digital Asset Proceeds From Broker Transactions*,[572] for sales of digital assets occurring on or after January 1, 2025.[573]

The 2024 Final Regulations that implemented broker reporting primarily amended Reg. §1.6045-1, *Returns of information of brokers and barter exchanges*, but also included amendments to the following:

- Reg. §1.6045-4, *Information reporting on real estate transactions*
- Reg. §1.6050W-1, *Information reporting for payments made in settlement of payment card and third party network transactions*

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[553] *See* VIII.G.5., below.

[554] Pub. L. No. 117-58 (enacted Nov. 15, 2021).

[555] *See* Announcement 2023-2, Announcement 2024-4. The IRS created the Digital Assets Initiative (DAI), which serves as a centralized resource for the IRS business operating divisions to ensure collaboration and consistency in the IRS's approach to digital assets. The IRS, including the DAI, has four primary focus areas relating to digital assets: communication, taxpayer and staff education, guidance and implementation, and community liaisons. IRS Pub. 5839, *Digital Assets Initiative*.

[556] *See generally* T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).

[557] *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56487, 56492, and 56517.

[558] Notice 2014-21, §2.

[559] Notice 2014-21, §4, A-1.

[560] Notice 2014-21, §4, A-13, A-15. IRS Notices do not carry weight of law, and a court may disagree with the view of the IRS expressed in the form of a notice.

[561] Notice 2014-21. *Note:* Several tax returns, including Form 1040, *U.S. Individual Income Tax Return*, require an answer to a digital assets question, asking taxpayers whether they engaged in certain digital asset transactions. See the Digital Assets page on the IRS website for further information.

[562] Pub. L. No. 117-58, §80603.

[563] §6050I. Note that the rules under §6050I apply to businesses that do not qualify as financial institutions. Title 31 governs reporting by financial institutions receiving cash in excess of $10,000, reportable on Form 8300 or Currency Transaction Reports filed with FinCEN. *See* 31 C.F.R. §1010.330.

[564] §6045(c)(1)(D), as amended by Pub. L. No. 117-58, §80603(a).

[565] §6045(g)(3)(D), as amended by Pub. L. No. 117-58, §80603(b)(1).

[566] §6045(g)(3)(D), as amended by Pub. L. No. 117-58, §80603(b)(1).

[567] §6045A(d), as amended by Pub. L. No. 117-58, §80603(b)(2).

[568] §6050I(d), as amended by Pub. L. No. 117-58, §80603(b)(3).

[569] *See generally* T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024). The 2024 Final Regulations deferred on rules for non-custodial broker reporting which the government intends to further study and publish separate final regulations for such reporting. The rules also deferred on CFC and non-U.S. custodial brokers, as the government indicated it intends to release further regulations implementing the CARF.

[570] *See* Announcement 2023-2 (transitional guidance for §6045A). The 2024 Final Regulations package provides further relief from §6045A reporting until proposed regulations on the applicability of §6045A to digital assets are released. *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,532.

[571] Announcement 2024-4 addresses transitional guidance for §6050I, which is discussed further in VIII.E., below.

[572] *See* Instructions for Form 1099-DA, *Digital Asset Proceeds From Broker Transactions*.

[573] Reg. §1.6045-1(q).

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- Reg. §31.3406(b)(3)-2, *Reportable barter exchanges and gross proceeds of sales of securities, commodities, or digital assets by brokers*
- Reg. §31.3406(g)-1, *Exception for payments to certain payees and certain other payments*
- Reg. §31.3406(g)-2, *Exception for reportable payment for which withholding is otherwise required*
- Reg. §301.6721-1, *Failure to file correct information returns*
- Reg. §301.6722-1, *Failure to furnish correct payee statements*
- Reg. §1.1001-1, *Computation of gain or loss*
- Reg. §1.1012-1, *Basis of property*.

The regulation package added Reg. §1.1001-7, *Computation of gain or loss for digital assets*. In addition, Reg. §1.6045A-1, *Statements of information required in connection with transfers of securities,* and Reg. §1.6045B-1, *Returns relating to actions affecting basis of securities,* were amended to except digital assets from transfer statement or issuer statement furnishing or reporting until further amendment.[574] The regulations do not address §6045A(d) transfer statement reporting requirements included in the statute beyond this temporary exception. There was also no discussion of §6050I in this regulation package.

Commentary: The Infrastructure Act included a rule of construction clarifying that the amendments are not intended to create any inference regarding the scope of §6045 prior to amendment, including whether any person qualifies as a broker or whether a digital asset is property meeting the definition of specified security.[575] This inclusion retains the possibility of enforcement action against digital asset custodians and intermediaries that might qualify as brokers engaged in reportable transactions prior to the explicit expansion of the broker definition under the Infrastructure Act.

Discussed below are the most relevant information reporting constructs that are likely to apply to parties transacting in digital assets, whether on behalf of customers as a custodian, settling digital asset payments to merchants, receiving digital assets as payment, or in another capacity. These rules must be considered under the present rules and forms — specifically Forms 1099-B, 8300, 1099-K, and 1099-MISC and the related backup withholding implications — as well as under the newly implemented and forthcoming changes through the Infrastructure Act. The 2024 Final Regulations are described after the current rules to show how reporting rules apply to sales of digital assets ocurring after January 1, 2025. In addition to U.S. information reporting rules, the OECD's CARF and Common Reporting Standard ("CRS") amendments, proposed by the OECD in March 2022 and finalized in October, are outlined below as these changes will likely impact all facets of the global digital asset industry.[576] The OECD recently announced a multilateral agreement where 48 countries, including the United States, intend to adopt CARF.[577] Further, the United States indicated in the 2024 Final Regulations package that it intends to issue future regulations for CARF participation by 2027.[578] Certain aspects of non-third-party taxpayer information reporting compliance is addressed below, specifically reporting by U.S. persons of their foreign financial accounts or foreign financial assets for purposes of either the FinCEN Form 114, *Report of Foreign Bank and Financial Accounts ("FBAR")* (formerly Form TD F 90-22.1), and Form 8938, *Statement of Specified Foreign Financial Assets,* are discussed. Finally, the current status of "John Doe summonses," one of the tools the government has recently used to investigate potential violations of Internal Revenue law (particularly where the violators are initially unidentified), is discussed below.

Regarding intermediary reporting, this Portfolio primarily focuses on the information reporting considerations of an intermediary acting on behalf of a U.S. customer. There are additional considerations where a U.S. intermediary may be paying fixed, determinable, annual, or periodic (FDAP) income to a non-U.S. person in the form of a digital asset. In that case, rules for withholding on U.S.-source FDAP income paid to a non-U.S. person would apply in the same manner as FDAP paid in a form other than a digital asset.[579]

For purposes of the Foreign Account Tax Compliance Act (FATCA), digital assets are not included as financial assets at this time and, therefore, are not subject to FATCA.[580] Accordingly, no withholding or information reporting under FATCA currently exists for digital assets. Note, however, that the Treasury Department's *General Explanations of the Administration's Fiscal Year 2025 Revenue Proposals* (the "Greenbook") proposes to include digital assets in the definition of financial assets subject to FATCA.[581]

B. Form 1099-B

1. Understanding Form 1099-B

Congress gave the Treasury Department authority under §6045(a) to require reporting of gross proceeds, and Treasury requires a person doing business as a broker to file Forms 1099-B with respect to their customers' sales of certain assets.[582] Generally, a "broker" is any person, U.S. or foreign, that, in the ordinary course of a trade or business, stands ready to ef-

[574] *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,532.

[575] Pub. L. No. 117-58, §80603(d).

[576] *See* See *International Standards for Automatic Exchange of Information in Tax Matters: Crypto-Asset Reporting Framework and 2023 update to the Common Reporting Standard*, OECD (Oct. 2023).

[577] *See* OECD Secretary-General Mathias Cormann welcomes pledge by 48 countries to implement global tax transparency standard for crypto-assets by 2027, OECD (Oct. 11, 2023).

[578] *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,517.

[579] Reg. §1.1441-2(b). For further discussion of FDAP income subject to withholding, see 6560 T.M., *Payments Directed Outside the United States — Withholding and Reporting* (Foreign Income Series).

[580] A "financial asset" for FATCA purposes includes: (i) any financial account maintained by a foreign financial institution; (ii) any stock or security not held in an account maintained by a financial institution and issued by a person other than a U.S. person; (iii) any financial instrument or contract held for investment not held in an account maintained by a financial institution and that has an issuer or counterparty that is other than a U.S. person; and (iv) any interest in a foreign entity not held in an account maintained by a financial institution. §6038D(b).

[581] Greenbook, at 227-228. This proposal was also included in the FY2023 and FY2024 Greenbooks.

[582] §6045(a); Reg. §1.6045-1.

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fect sales to be made by others.[583] As defined under the statute, the term "broker" includes a dealer, a barter exchange, and any other person who for consideration regularly acts as a middleman with respect to property or services.[584] The §6045 regulations narrow the general definition of broker to persons "effecting"[585] sales of commodities, securities, regulated futures contracts, forwards contracts, and similar financial instruments, on behalf of others, for cash.[586] Note that a person who is not a "U.S. payor or middleman" effectuating sales outside the United States is excluded from the definition of broker.[587]

A sale does not include entering into a contract that requires delivery of personal property (or an interest in personal property), the initial grant or purchase of an option, or the exercise of a purchased call option for physical delivery.[588] However, the term "broker" also includes a barter exchange.[589] A barter exchange is "any person with members or clients that contract either with each other or with such person to trade or barter personal property or services either directly or through such person," but it does not include arrangements that provide solely for the informal exchange of similar service on a noncommercial basis.[590]

A broker must file Form 1099-B, *Proceeds From Broker and Barter Exchange Transactions,* for each sale by a customer of the broker if, in the ordinary course of a trade or business in which the broker stands ready to effect sales to be made by others, the broker effects the sale or closes the short position opened by the sale.[591] In addition, a barter exchange must file Form 1099-B for each exchange of personal property, services through a barter exchange during the calendar year among the members or clients of the barter exchange, or between those persons and the barter exchange.[592]

Where any security transactions involve a "covered security," the broker is required to include on the Form 1099-B the customer's acquisition date and adjusted basis of the security.[593] A covered security refers to any "specified security" acquired on or after the applicable date if the security: (i) was acquired through a transaction in the account in which the security was held; or (ii) was transferred to that account from an account in which the security was a covered security, but only if the broker receiving custody of the security receives a statement under §6045A with respect to the transfer.[594] A specified security is any: (i) share of stock in a corporation; (ii) note, bond, debenture, or other evidence of indebtedness; (iii) commodity, or contract or derivative with respect to the commodity, if the Secretary determines that adjusted basis reporting is appropriate; and (iv) any other financial instrument with respect to which the Secretary determines that adjusted basis reporting is appropriate.[595]

2. *Application of Form 1099-B to Digital Asset Transactions*

The Infrastructure Act added a new definition of "broker" and included "digital assets" as covered securities. There has been some debate prior to the Infrastructure Act whether such digital asset transactions were subject to §6045 reporting on IRS Forms 1099-B.

a. *Pre-Infrastructure Act*

Prior to the Infrastructure Act, Form 1099-B reporting could only apply to digital asset transactions if the digital assets qualified as securities or commodities as defined under §6045 or were otherwise subject to barter reporting. The regulations further narrowed the scope of reportable contracts by excluding contracts requiring delivery of or an interest in personal property unless the personal property delivered falls into one of the other specifically enumerated reporting categories such as commodities.[596] Thus, prior to the effective date of the Infrastructure Act, Form 1099-B reporting likely only applies to those digital assets that qualify as securities or commodities for purposes of §6045. Similarly, businesses that provide for the exchange of cryptocurrencies could also be subject to barter transaction reporting under §6045.

Security: The term "security" is defined as

- A share of stock in a corporation (foreign or domestic);
- An interest in a trust;
- An interest in a partnership;
- A debt obligation;
- An interest in or right to purchase any of the foregoing in connection with the issuance thereof from the issuer or an

[583] Reg. §1.6045-1(a)(1).

[584] §6045(c)(1)(A) – §6045(c)(1)(C), subject to amendment by Infrastructure Act, which adds §6045(c)(1)(D) effective as of January 1, 2023, providing that "broker" includes any person who (for consideration) is responsible for regularly providing any service effectuating transfers of *digital assets* on behalf of another person. See below for further discussion of amendment. There is limited interpretive guidance of the scope of who is a dealer. Courts have held, however, that a dealer who purchases commodities wholesale for subsequent retail sales is not considered a broker for purposes of §6045. *See Robinson v. United States*, 1995 U.S. Dist. LEXIS 4375 (F. Mid. Dist. Ct., 1995) (holding that the term "dealer," as used in §6045, should be restricted to dealers that are similar to the other enumerations of the statutory definition of broker, and therefore a dealer who purchases commodities exclusively from wholesalers for subsequent retail sales would not be a broker under §6045 because these transactions bear no resemblance to the activities of middlemen or barter exchanges).

[585] Reg. §1.6045-1(a)(10) (to effect a sale means, "with respect to a sale, to act as: (i) an agent for a party in the sale wherein the nature of the agency is such that the agent ordinarily would know the gross proceeds from the sale; or (ii) a principal in such sale.").

[586] Reg. §1.6045-1(a)(1), §1.6045-1(a)(9).

[587] Reg. §1.6045-1(a)(1).

[588] Reg. §1.6045-1(a)(9).

[589] §6045(c)(1)(B).

[590] Reg. §1.6045-1(a)(4).

[591] Reg. §1.6045-1(c)(2). Certain recipients are exempt from Form 1099-B reporting. For further discussion of Form 1099-B, see 643 T.M., *Information Reporting to U.S. Persons & Payments Subject to Back-up Withholding.*

[592] Reg. §1.6045-1(e)(2)(i). Note that property or services are exchanged through a barter exchange if payment for property or services is made by means of a credit on the books of the barter exchange or scrip issued by the barter exchange or if the barter exchange arranges a direct exchange of property or services among its members or clients or exchanges property or services with a member or client.

[593] §6045(g). The broker must also indicate whether gain or loss from the exchange of the covered security is long term or short term.

[594] Reg. §1.6045-1(a)(15), §1.6045-1(g)(3).

[595] Reg. §1.6045-1(a)(14), §1.6045-1(g)(3). Note that the Infrastructure Act added digital assets to the definition of a specified security effective January 1, 2023. §6045(g)(3)(B), as amended by Pub. L. No. 117-58, §80603(b)(1)(A).

[596] Reg. §1.6045-1(a)(9).

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agent of the issuer or from an underwriter that purchases any of the foregoing from the issuer;

• An interest in stock or a debt obligation (but not including executory contracts that require delivery of such type of security);

• Certain options described in Reg. §1.6045-1(m)(2); or

• A securities futures contract.[597]

Before the Infrastructure Act, the most authoritative guidance pertaining to digital assets for tax purposes was in Notice 2014-21. That notice classified as "property" assets which were a "digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value."[598] Even under the notice, however, these types of property do not broadly fit within any of the above-enumerated definitions of securities under present guidance. Certain digital assets may have characteristics that align with securities definitions. For example, certain stablecoins could potentially qualify as debt obligations for tax purposes depending on the structure of the stablecoin and interpretations of existing regulations developed prior to the advent of blockchains and digital assets. Similarly, a digital asset that represents an interest in a partnership could potentially qualify as a security if the tokenized partnership interest is a store of value through which the partnership interest was conveyed. Outside of these fact-dependent cases, digital assets do not appear to broadly qualify as securities as defined under §6045 before the Infrastructure Act, and, as such, Form 1099-B reporting of most digital assets as securities may not be required.

Commodity: The regulations limit the definition of a commodity, for purposes of §6045, to personal property, or an interest therein, in which the trading of regulated futures contracts has been approved by the Commodity Futures Trading Commission (CFTC).[599] Certain digital asset futures and options contracts trade on commodity exchanges. For example, Bitcoin futures and options contracts trade on the Chicago Mercantile Exchange (CME) among other exchanges. However, under the Commodity Exchange Act (CEA),[600] a designated contract market (DCM) may either: (i) submit a written self-certification to the CFTC that the contract complies with the CEA and CFTC regulations; or (ii) voluntarily submit the contract for CFTC approval.[601] In the case of Bitcoin and other digital asset futures and options, the DCMs have pursued the self-certification process, permitting them to trade on the exchange. The CFTC has been clear in stating that the completion of this process "is not a Commission approval."[602] It is therefore uncertain whether self-certified contracts can be considered "approved" as contemplated under the §6045 regulations such that Form 1099-B reporting as commodities would be required prior to implementation of the Infrastructure Act.[603]

Barter Exchange: Considering the IRS's stance on treatment of digital assets as property per Notice 2014-21, there is a reasonable argument that a business providing for the exchange of digital assets, whether between customers or with the business, could qualify as a barter exchange. The regulatory language discusses reporting "exchanges of personal property," including through exchange by means of credit or scrip. "Scrip" includes "tokens" issued by the exchange that are transferable amongst members of the exchange and redeemable with the exchange.[604] If treated as a barter exchange, a business would be required to issue Forms 1099-B for transactions among its members or clients, or between those persons and the exchange.

b. Post-Infrastructure Act

The Infrastructure Act modified the definition of "specified security" to include "any digital asset," defined broadly as "any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology as specified by the Secretary."[605] The Act also modified the definition of "broker" in §6045. The definition now includes "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person."[606] According to the effective dates listed in the statute, the inclusion of digital assets as specified securities is effective January 1, 2023, though the 2024 Final Regulations do not require reporting for sales effected before January 1, 2025.[607]

The broad definition of "broker" under the amended §6045 has left several open questions regarding scope of impacted parties. The broker definition is broad enough to encompass miners, stakers, and node operators that validate blockchain transactions in exchange for mining or staking rewards. Similarly, persons launching or operating DeFi protocols could fit the new broker definition. Persons acting in these capacities are providing a service that effectuates digital asset transfers of others, and consideration is received for that service. Based on nonbinding public commentary by the U.S. Congress members that introduced the amendments to §6045, the broker definition is not intended to capture persons acting solely as miners, stakers, or node operators, because the drafters considered these persons as not "regularly, and for consideration, effectuat[ing] transfers of digital assets."[608] Under the 2024 Final

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[597] Reg. §1.6045-1(a)(3).

[598] Notice 2014-21, §2.

[599] Reg. §1.6045-1(a)(5)(i).

[600] Pub. L. No. 74-675 (1936) (codified as amended at 7 U.S.C. §1–§27f).

[601] *See* 7 U.S.C. §7a-2(c); *Self-Certification Filing Procedures,* CFTC.

[602] *See CFTC Statement on Self-Certification of Bitcoin Products by CME, CFE and Cantor Exchange,* Release No. 7654-17, CFTC (Dec. 1, 2017).

[603] A commodity can also include any other "personal property or an interest therein that is of a type the Secretary determines is to be treated as a 'commodity' under this section," as long as the IRS provides notice in the Federal Register. Reg. §1.6045-1(a)(5)(iii).

[604] Reg. §1.6045-1(f)(4). The terms are defined under the Reg. §1.6045-1(f)(5) as follows:

> (i) A credit is an amount on the books of the barter exchange that is transferable from one member or client of the barter exchange to another such member or client, or to the barter exchange in payment for property or services;
>
> (ii) Scrip is a token issued by the barter exchange that is transferable from one member or client of the barter exchange to another such member or client, or to the barter exchange, in payment for property or services.

[605] §6045(g)(3)(D), as amended by Pub. L. No. 117-58, §80603(b)(1)(A).

[606] §6045(c)(1), as amended by Pub. L. No. 117-58, §80603(a).

[607] §6045(g)(3)(C), as amended by Pub. L. No. 117-58, §80603(b). *See* Reg. §1.6045-1(q).

[608] *See On Senate Floor, Portman, Warner Conduct Colloquy Clarifying Cryptocurrency Provision in Infrastructure Investment & Jobs Act,* Press Re-

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Regulations,[609] discussed further in VIII.F., below, this intended scope is retained, excluding those acting solely as miners, stakers, or node operators. The 2024 Final Regulations regulations instead modify the language of broker to include those acting in the ordinary course of a trade or business rather than "for consideration," which, as discussed in further detail below, were intended to expand the broker definition to include DeFi protocols within the scope of broker (though this part of the regulations is deferred for future rulemaking).[610]

The 2024 Final Regulations generally require reporting of digital asset sales on Form 1099-DA, which will be discussed further in VIII.F., below. However, the 2024 Final Regulations require some "dual classification assets" to be reported on Form 1099-B instead of Form 1099-DA.[611] A "dual classification asset" is any asset, the sale of which would qualify both as a sale of a digital asset (e.g., reportable on Form 1099-DA)[612] and a sale of a security (e.g., reportable on Form 1099-B).[613] The general rule requires such dual classification assets to be reported solely on Form 1099-DA instead of Form 1099-B, as will be discussed further in VIII.F., below. There are three exceptions to this general rule:

- Sales of §1256(b) contracts that are also digital assets are still reported on Form 1099-B;[614]
- Sales of interests in money market funds that are also digital assets are still reported on Form 1099-B (subject to the existing exception to reporting for such interests);[615] and
- Sales of dual classification assets cleared or settled on a limited-access regulated network are still reported on Form 1099-B.[616]

There are three types of limited-access regulated networks that are covered by the exception:

(1) A distributed ledger or network of interoperable distributed ledgers (i.e., assets can go from one broker to a different broker in the network) only accessible to registered dealers in securities or commodities, banks and similar financial institutions, common trust funds, or futures commission merchants;

(2) A distributed ledger or network of interoperable distributed ledgers provided by a registered clearing agency (access is not limited to the entity types above); and

(3) A distributed ledger solely used by a single financial institution (the financial institution must be an entity type as described in (1), a REIT, or a 1940 Act Fund).[617]

Dual classification assets cleared or settled on a limited-access regulated network are neither treated as digital assets nor reportable as a digital asset for any purpose of the §6045 regulations, including transfers.[618] As discussed further in VIII.F., below, this means that dual classification assets that are §1256(b) contracts and money market interests are not subject to transfer statement reporting, whereas dual classification assets cleared or settled on a limited-access regulated network will be subject to transfer statement reporting in the same manner as non-digital asset securities are currently.[619]

Another primary practical consideration is the effective date of reporting on dual classification assets. Most dual classification assets, as they are treated as securities under pre-2024 rules, have been subject to existing Form 1099-B reporting obligations that are unchanged with the 2024 Final Regulations. Therefore, sales of these assets effected before January 1, 2025, should continue to be reported on Form 1099-B under the pre-2024 rules. The reporting of the three types of excepted dual classification assets above that will continue to be reported on Form 1099-B are functionally unchanged by the rules: they should have been reported on Form 1099-B under pre-2024 rules and will continue to be reported on Form 1099-B for sales effected on or after January 1, 2025.[620]

Currently, exchange traded products are available for investors to get exposure to digital assets. These are often structured as grantor trusts that qualify as widely held fixed investment trusts (WHFITs).[621] The preamble to the 2024 Final Regulations states that, where a WHFIT holds digital assets, an interest in the trust is not considered a digital asset as long as the interest is not tradable on a cryptographically secured distributed ledger.[622] As such, a broker facilitating sale of an interest in a WHFIT holding digital assets would report that sale on Form 1099-B and not Form 1099-DA. However, when a WHFIT disposes of a digital asset, that disposition will result in Form 1099-DA reporting. This reporting is discussed in further detail in VIII.F., below. [623]

3. *Implications of Qualifying as a Broker*

Commentary: If a person transferring digital assets on behalf of customers qualifies as a broker, whether pre- or post-Infrastructure Act, there are several implications beyond the requirement to file Forms 1099. Reportable payments under §6045 are subject to the backup withholding rules under §3406. These rules require that all payees (customers) have furnished certified TINs to the payor (broker) at the time of the reportable transaction, which, in the case of covered securities sales (or

lease, Mark R. Warner, U.S. Senator from the Commonwealth of Virginia (Aug. 9, 2021).

[609] Reg. §1.6045-1.

[610] *See* Reg. §1.6045-1(a)(1). *See also* Preamble to T.D. 10000, 89 Fed. Reg. at 56,492-56,493.

[611] Reg. §1.6045-1(c)(8).

[612] Reg. §1.6045-1(a)(9)(ii).

[613] Reg. §1.6045-1(c)(8)(i) (citing Reg. §1.6045-1(a)(9)(ii) for sales of digital assets and Reg. §1.6045-1(a)(9)(i) for sales of other than digital assets).

[614] Reg. §1.6045-1(c)(8)(ii).

[615] Reg. §1.6045-1(c)(8)(iv).

[616] Reg. §1.6045-1(c)(8)(iii).

[617] Reg. §1.6045-1(c)(8)(iii)(B).

[618] Reg. §1.6045-1(c)(8)(iii)(A).

[619] Section 1256(b) contracts that are digital assets are still treated as digital assets for all purposes but are reported on Form 1099-B. Reg. §1.6045-1(c)(8)(ii). Money market funds that are digital assets are treated like other money market funds, which already are not subject to transaction reporting or transfer statement reporting. *See* Reg. §1.6045-1(c)(3)(vi), §1.6045-1(c)(8)(iv), §1.6045A-1(a)(1)(v).

[620] For further discussion of Form 1099-B reporting for non-digital assets, see 643 T.M., *Information Reporting to U.S. Persons — Payments Subject to Back-up Withholding.*

[621] See discussion in VI.C., above.

[622] *See* Preamble to T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).

[623] For further discussion of Form 1099-B reporting for non-digital assets, see 643 T.M., *Information Reporting to U.S. Persons — Payments Subject to Back-up Withholding.*

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applicable digital asset transactions in the future), is at the time of the sale. With limited exception, if the TINs are not furnished using a Form W-9 or acceptable substitute form at the time of the transaction, the payor is required to impose backup withholding at the fourth lowest rate applicable under §1(c) on the gross proceeds received from the sale.[624] When transacting in stocks and bonds, there is generally cash available from which to debit this withholding. Where digital assets are exchanged for other digital assets, a backup withholding requirement may be imposed on the broker, which would require the broker to liquidate the digital asset to obtain the cash to deposit with the IRS. This is a distinct challenge if there is significant lag between the exchange and the liquidation because of the volatility in digital asset values. Notice 2024-56, issued with the 2024 Final Regulations, provides transition relief in such case, but only for sales effected before January 1, 2027. During the transition period, if the broker liquidates and deposits with the IRS 24% of the digital assets received, they will not be liable for underwithholding if the dollar amount is less than 24% of the FMV of the digital assets at the time of the transaction.[625]

By the time the relief expires, brokers will need to set up efficient processes for addressing this withholding requirement, and they will need to develop procedures for depositing timely as well. To reduce instances where backup withholding may be required, brokers should consider obtaining tax documentation at account opening.

Digital assets qualifying as covered securities will require broker tracking of acquisition date and cost basis information. Some of this information may be publicly available for certain digital assets (e.g., transaction dates can typically be discerned from a public blockchain ledger). The method through which a broker holds and transfers the digital assets of its customers — directly on chain or through a custodian — will impact the broker's ability to track and use this data. Systems will need to be agile enough to accommodate for specific identification of securities and customer and third-party information that may impact cost basis figures. Depending on future innovation in the digital asset space, events akin to corporate actions effecting basis may also impact cost basis information. Under §6045A, brokers will also need to have the ability to furnish transfer statements and to intake transfer statements sent to them, though as final regulations have not been released explaining how transfer statement reporting applies to digital assets, there is no guidance on how such reporting would look (other than existing transfer statement furnishing between brokers for non-digital assets).

Once Form 1099 reporting is completed, brokers will need to be prepared for the CP2100 (B Notice) process and annual TIN solicitation processes.[626] This is an iterative annual cycle with the IRS that large payors need to address to avoid information reporting penalties and backup withholding obligations. The process involves furnishing B Notices to customers whose Tax Identification Numbers (TINs) do not match the names on their Forms 1099 or where TINs were not reported on the Forms 1099. Backup withholding is required to be imposed after a certain timeline depending on circumstances, and reasonable explanations for missing and mismatched TINs need to be provided to the IRS to avoid penalty imposition and withholding obligations on identified customers.

For further discussion of backup withholding, see 643 T.M., *Information Reporting to U.S. Persons — Payments Subject to Back-up Withholding.*

C. Form 1099-K

1. Understanding Form 1099-K

A payment settlement entity must issue Form 1099-K, *Payment Card and Third Party Network Transactions,* to any participating payee to whom the payment settlement entity makes one or more payments in settlement of reportable transactions.[627] There are generally two types of payment settlement entities (PSEs): a merchant acquiring entity (MAE) and a third-party settlement organization (TPSO).[628] A MAE is the bank or other organization that has the contractual obligation to make payment to any person who accepts a payment card in settlement of payment card transactions.[629] A payment card is any card (or indicia of such card), including any stored-value card, issued pursuant to an agreement or arrangement that provides for: (i) one or more issuers of such cards; (ii) a network of persons unrelated to each other, and to the issuer, who agree to accept such cards as payment; and (iii) standards and mechanisms for settling the transactions between the merchant acquiring entities and the persons who agree to accept the cards as payment.[630] The persons who accept such cards as payments (e.g., the merchants) are the participating payees.[631] The merchant's financial institution is generally the MAE with reporting obligations, subject to the exceptions described below.[632]

A TPSO is a central organization that provides a payment network (the "third-party network") that: (i) involves the establishment of accounts with a central organization by a substantial number of providers of goods or services who are unrelated to the organization and who have agreed to settle transactions for the provision of the goods or services to purchasers according to the terms of the agreement or arrangement; (ii) provides standards and mechanisms for settling the transactions; and (iii) guarantees payment to the persons providing goods or services in settlement of transactions with purchasers pursuant to the agreement or arrangement.[633] The sellers of goods and services who create accounts and agree to settle transactions through the network are the participating payees to whom the Forms 1099-K must be filed.[634]

There are two situations where a third party may be responsible for sending Forms 1099-K to participating payees. If a third party agrees to act as an intermediary for reportable payments between the PSE and one or more participating payees, the third party will be issued the Forms 1099-K by the PSE, and

[624] §3406(a)(1). *See* §1(c), §1(j)(2)(C).
[625] Notice 2024-56, §3.06.
[626] IRS Pub. 1281, *Backup Withholding for Missing and Incorrect Name/TIN(s).*
[627] §6050W.
[628] §6050W(b)(1).
[629] Reg. §1.6050W-1(b)(2).
[630] Reg. §1.6050W-1(b)(3)(i).
[631] Reg. §1.6050W-1(b)(3)(ii).
[632] Reg. §1.6050W-1(b)(2).
[633] Reg. §1.6050W-1(c)(3)(i).
[634] Reg. §1.6050W-1(c)(3)(iii).

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will in turn have to issue a Form 1099-K to each participating payee as if the third party was the PSE.[635] As an example, where a variety of merchants are franchisees, and the franchisor establishes a single corporation to accept payments on behalf of all the franchisees, that corporation is the "aggregated payee" responsible for issuing Forms 1099-K to the franchisees.[636] A third party may also contract with the PSE to make payments to the participating payees on behalf of the PSE (the third party is an "electronic payment facilitator"). If the electronic payment facilitator submits the instructions to transfer funds to the account of the participating payee, then the electronic payment facilitator is responsible for issuing the Form 1099-K.[637]

Only one Form 1099-K must be issued per year reporting all gross transactions per payee or account,[638] and payees that are exempt from most Form 1099 series filings are not exempt from Form 1099-K reporting.[639] For TPSOs only, no Form 1099-K is required to be reported for reportable payments where the aggregate amount of reportable payments to an individual participating payee does not exceed $600.[640] Note, however, that the statutory $600 transaction threshold mentioned above is currently on hold by the IRS. For calendar years 2022 and 2023, the IRS has delayed the implementation of the $600 threshold and allows taxpayers to report under the previous statutory threshold: payments in excess of $20,000 and more than 200 transactions.[641] For calendar year 2024, the IRS further extended this transition period and requires taxpayers to report payments that exceed $5,000, regardless of the number of such transactions. Additionally, the IRS determined that calendar year 2025 will be regarded as the final transition period and requires taxpayers to report payments that exceed $2,500, regardless of the number of such transactions.[642]

2. *Application of Form 1099-K to Digital Asset Transactions*

Notice 2014-21 contemplates a situation wherein a TPSO creates a platform that allows merchants to settle payments with customers using virtual currency.[643] The IRS asserted that if, on the date of payment, the fair market value of the virtual currency (summed with any real currency transactions) rose to the minimum aggregate transaction amount required for reporting obligations to trigger (e.g., $600), then the TPSO would be required to report the aggregate amount of all transactions on a Form 1099-K.[644]

The final digital asset broker regulation package includes coordination rules in the §6045 regulations and the §6050W regulations for PSE transactions. As will be discussed further in VIII.F., below, the definition of a digital asset broker required to report under §6045 includes a "processor of digital asset payments" (PDAP).[645] A PDAP is a person who in the ordinary course of a trade or business effects sales of digital assets by regularly facilitating payments from one party to a second party by receiving digital assets from the first party and paying those digital assets, cash, or different digital assets to the second party.[646] A PDAP must have an agreement (including general terms and conditions) with the first party to provide digital asset payment services and allows the PDAP to verify the party's identity or otherwise comply with applicable anti-money laundering (AML) requirements.[647] The definition of a PDAP (who must report under §6045 on Form 1099-DA) aligns closely to the definition of a PSE (who must report under §6050W on Form 1099-K). Therefore, situations may arise where a person must report on a transaction as both a PSE and as a PDAP, and, similarly, there may be instances where the PDAP is not acting as PSE and is responsible for only the Form 1099-DA reporting with respect to the customers' digital asset payments.

PSE transactions have two components: (1) the payment by a payor (the customer of the merchant) in exchange for (2) the provision of goods or services by the participating payee (the merchant). Generally, the first leg of the transaction is not reportable to the payor on Form 1099-K. However, if a payor, via the PSE, makes a payment using digital assets in exchange for the merchant's goods or services, and that exchange is considered a sale of digital assets under the §6045 rules, the payment by payor is reportable on Form 1099-DA under the §6045 regulations as a sale of a digital asset.[648] By paying for the goods and services using a digital asset, the payor has functionally disposed of the digital asset and the PSE has effected the sale by acting as a digital asset broker (a PDAP). The second leg of a PSE transaction may be reportable to the participating payee on Form 1099-K subject to the §6050W rules. However, if the goods or services provided by the merchant are digital assets – and therefore the exchange of those digital assets for cash or property from the customer is a disposition of a digital asset – the PSE must report to the merchant on Form 1099-DA (as a PDAP) instead of Form 1099-K.[649] In essence, where a payment is reportable on both Form 1099-K and Form 1099-DA to the same payee, reporting on Form 1099-DA controls over reporting on Form 1099-K. These rules and examples in the §6045 and §6050W regulations indicate that there are four reporting scenarios that exist:

- A payor purchases non-digital asset goods or services using cash or non-digital assets — the PSE reports to participating payee on Form 1099-K, no reporting to payor;
- A payor purchases non-digital asset goods or services using digital assets — the PSE reports to the participating payee on Form 1099-K and to the payor on Form 1099-DA as a PDAP;
- A payor purchases digital asset goods or services using cash or non-digital assets — the PSE reports to the participating payee on Form 1099-DA as a PDAP, no reporting to payor; and

[635] Reg. §1.6050W-1(c)(3)(iii).
[636] Reg. §1.6050W-1(e), Ex. 21.
[637] Reg. §1.6050W-1(d)(2).
[638] Reg. §1.6050W-1(a).
[639] See §6050W and the related regulations.
[640] §6050W(e).
[641] *See* Notice 2023-10, Notice 2023-74.
[642] Notice 2024-85.
[643] Notice 2014-21, §4, A-15.
[644] Notice 2014-21, §4, A-15.
[645] Reg. §1.6045-1(a)(22).
[646] Reg. §1.6045-1(a)(22).
[647] Reg. §1.6041-1(a)(2)(ii)(A).
[648] Reg. §1.6050W-1(c)(5)(i)(A).
[649] Reg. §1.6050W-1(c)(5)(i)(B).

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• A payor purchases digital asset goods or services using digital assets — the PSE reports to the participating payee on Form 1099-DA and to the payor on Form 1099-DA, both as a PDAP.[650]

Note: There may be situations where a payment is reportable both as a sale by a digital asset broker as a PDAP and as other than a sale effected by a PDAP. In such a case, the second classification controls (i.e., as a sale of a digital asset effected by other than a PDAP). These rules will be explained further in VIII.F., below, and do not alter the application of the rules above (e.g., if a Form 1099-DA reportable payment and a Form 1099-K reportable payment, report only on Form 1099-DA).

Commentary: Before the 2024 Final Regulations, it was unclear whether digital assets would be considered "goods" or "services" for purposes of §6050W. The 2024 Final Regulations do not explicitly clarify this point. However, the language added to the §6050W regulations and §6045 regulations indicate that there are situations where goods and services for Form 1099-K purposes can also be digital assets for Form 1099-DA purposes. No further guidance was provided on how to make such a determination. Until further guidance is released, businesses meeting the definition of TPSO will need to analyze whether they view the Form 1099-K rules as applying to their activity such that reporting is required. These same businesses will also have to consider whether transactions involving digital assets result in categorization as brokers under §6045. As highlighted above for brokers, backup withholding applies to reportable payments under §6050W, and TINs are required to avoid imposing withholding (distinct from broker reporting, certified TINs are not required for §6050W).

The rules for reporting on Form 1099-DA only apply for sales of digital assets occurring on or after January 1, 2025. Therefore, where the gross proceeds from the disposition of a digital asset is both reportable on Form 1099-K and a sale of a digital asset that would be reportable on Form 1099-DA, that payment should be reported on Form 1099-K if the disposition occurs prior to January 1, 2025.

Unlike under §6045, the rules under §6050W do not require payors to obtain certified TINs at this time, allowing for collection of TINs from payees orally or in writing.[651]

D. Forms 1099-MISC and NEC

1. Understanding Forms 1099-MISC and NEC

A person must issue a Form 1099-MISC, *Miscellaneous Information,* to any person to whom payments of fixed, determinable, annual, or periodic ("FDAP") income are made in the course of one's trade or business.[652] There is an enumerated list of the types of payments for which a Form 1099-MISC is required, but there is also a catchall category of "other gains, profits, and income."[653] Payment types relevant to digital assets that must be reported on Form 1099-MISC include royalty and rent payments, determined by what character the items of income most approximate. Regulations under §6041 require a person who makes payment on behalf of another person in the course of their trade or business — a "middleman" — to file the relevant form provided the middleman "[p]erforms management or oversight functions in connection with the payment" or "[h]as a significant economic interest in the payment" that would be compromised if the payment were not made.[654] Note that, for royalties only, §6050N applies a broader middleman concept, not requiring the middleman to make payments in the course of their trade or business, to have management or oversight, or to have an economic interest in the payments.[655] Payment excepted from Form 1099-MISC reporting are those required to be reported on other Forms 1099, most payments made to corporations, payments constituting wage or salary, and payments made to informants.[656]

2. Application of Form 1099-MISC to Digital Asset Transactions

Notice 2014-21 includes a scenario where a person, in the course of their trade or business, makes a payment of fixed and determinable income using virtual currency worth $600 or more.[657] The IRS stated that the payor is required to report the payment to the IRS and to the payee, presumably referring to reporting on a Form 1099-MISC.[658]

In Rev. Rul. 2019-24, the IRS ruled that, where a taxpayer holds cryptocurrency that undergoes a hard fork, and as a consequence receives an airdrop of new units of cryptocurrency, the new units would be considered receipt of gross income under §61.[659] Where the original cryptocurrency is held on an exchange, and the new units are thus paid by the exchange to the account of the recipient, there appears to be a trigger of Form 1099 obligation (where the fair market value of the new units of cryptocurrency at the time of the hard fork is $600 or more). Token airdrops by NFT creators may similarly trigger Form 1099-MISC reporting obligations where de minimis thresholds are met if the airdrop "payments" are considered made in the course of the trade or business of the creator or the intermediary through which the token is airdropped to the recipient. Reporting is also likely required in the context of staking reward and NFT royalty payments made by intermediaries. The character of staking rewards and secondary market sale royalties to NFT creators are unclear and are debated by industry. Whether characterized as payments for services, rent, royalties, or other in-

[650] *See* Reg. §1.6050W-1(c)(5)(ii) (examples of mixed reporting), §1.6045-1(b)(12), §1.6045-1(d)(5)(v)(D), §1.6045-1(d)(5)(v)(E) (examples of mixed reporting).

[651] Reg. §31.3406(d)-1(d).

[652] §6041(a).

[653] Reg. §1.6041-1(a)(1)(i).

[654] Reg. §1.6041-1(e).

[655] §6050N; Reg. §1.6049-4(f)(4)(i):
The term "middleman" means any person, including a financial institution as described in paragraph (c)(1)(ii)(M) of this section, a broker as defined in section 6045(c), or a nominee, who makes payment of interest for, or collects interest on behalf of, another person, or otherwise acts in a capacity as intermediary between a payor and a payee.

[656] *See* Instructions for Forms 1099-MISC and 1099-NEC. For payments constituting wage or salary, the payments are reported on either the employee's Form W-2 or on Form 1099-NEC. The Form 1099-NEC is for reporting payments of at least $600 for services performed by a non-employee. Where digital assets are used to pay for services, and the value of digital assets transferred are $600 or more, the payor must file a Form 1099-NEC.

[657] Notice 2014-21, §4, A-12.

[658] Notice 2014-21, §4, A-12.

[659] Rev. Rul. 2019-24.

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come, the payments qualify as some form of FDAP income and therefore are in scope for §6041 purposes. When these amounts are paid by exchanges and marketplaces in the course of their trade or business, reporting is likely to apply. Additionally, the middleman rules may apply to broaden the scope of parties responsible to report, especially where the payment amount is characterized as a royalty. Note that the de minimis threshold for royalty payments is lowered to payments totaling $10 or more in a year.

In coordination with the 2024 Final Regulations, the government issued Notice 2024-57, which identifies six digital asset transactions that are not subject to the final §6045 regulations until further regulations are released.[660] Staking is identified as one of the transactions.[661] The notice clarifies that, despite staking transactions being exempt from §6045 reporting until further notice, the notice "does not affect whether the receipt or crediting of validation rewards for the use of the disposed digital assets is otherwise subject to information reporting under another Code section as rent, salaries, wages, premiums, annuities, compensations, remunerations, emoluments, interest, or other fixed or determinable income."[662]

In addition to the situations above, because digital assets are treated as personal property, nearly any transaction involving personal property that triggers a Form 1099 reporting requirement would require a Form 1099 to be filed where the transaction is settled in digital assets rather than fiat currency. For example, a person paying in the course of their trade or business $2,500 worth of digital assets to an independent contractor for personal services performed is required to report that payment on Form 1099-NEC to the IRS and to the payee.[663]

Unlike under §6045 or §6050W, the rules under §6041 do not require payors to obtain certified TINs at this time, allowing for collection of TINs from payees orally or in writing.[664]

E. Other Infrastructure Act Considerations

The Infrastructure Act amended §6050I to require all persons, broker or non-broker, to report any person from whom they receive $10,000 or more in digital assets in one transaction (or two or more related transactions).[665] This mirrors existing requirements for businesses to report receipts of $10,000 or more in cash today on IRS Forms 8300. However, unlike in the context of cash payments, digital asset transfers can occur without the customer being physically present. This will create practical challenges to gathering the relevant customer demographic data to accomplish reporting, and regulatory guidance is needed to clarify expectations of merchants on whom the reporting requirement is imposed.

Form 8300 is used both for purposes of the Internal Revenue Code and for reporting transactions to FinCEN under the Bank Secrecy Act (BSA).[666] The regulations under the Code and the BSA indicate that the reporting of these transactions must be reported on the same form.[667] Accordingly, any guidance or alterations the IRS makes to the form to account for the digital asset reporting requirements will require coordination with FinCEN prior to promulgation. The statute lists an effective date of transactions on or after January 1, 2024.[668] However, Announcement 2024-4 extends the effective date of the §6050I amendments made by the Infrastructure Act until the IRS issues final regulations implementing those rules. Thus, persons engaged in a trade or business who, in the course of that trade or business, receive digital assets or digital assets and other cash in one transaction (or two or more related transactions) are not required to include those digital assets when determining whether cash received has a value in excess of the $10,000 reporting threshold for §6050I purposes.[669]

Commentary: Note that backup withholding does not apply to amounts required to be reported on Form 8300, but penalties can apply if efforts are not made to obtain TINs. For reporting of non-U.S. persons, no TIN is required, but the filer must verify name and address, and the source of the verification (such as a passport) must be included on Form 8300. Additionally, note that, despite the treatment of digital assets as cash under §6050I, these reporting rules should not be extrapolated to support a view that cryptocurrencies qualify as currency for tax purposes. The reporting of this rule was set to become effective on January 1, 2024.[670]

For further discussion of transactions reportable on Form 8300, see 644 T.M., *Reportable Payments and Transactions Not Subject to Backup Withholding.*

F. 2024 Final Regulations for Reporting Digital Asset Transactions and Form 1099-DA

The IRS published the 2024 Final Regulations regarding information reporting, the determination of amount realized and basis, and backup withholding, for certain digital asset sales and exchanges.[671] The regulations were issued primarily to implement the amendments to the tax law made by the Infrastructure Act.[672] The regulations generally align with the Infrastructure Act's definition of digital assets, defining a digital asset as "any digital representation of value that is recorded on a cryptographically secured distributed ledger (or any similar technology), without regard to whether each individual transaction involving that digital asset is actually recorded on that ledger, and that is not cash[.]"[673] The regulations explicitly exclude fiat currency in digital form from the definition of digital assets, defining such assets as "cash" instead.[674] While not listed in the regulation definition of digital asset, the preamble to the regulations suggests that the definition of "digital asset" is

[660] Notice 2024-57, §3.01.
[661] Notice 2024-57, §3.04.
[662] Notice 2024-57, §3.04.
[663] *See e.g.,* Notice 2014-21, §4, A-12, A-13.
[664] Reg. §31.3406(d)-1(d).
[665] §6050I(d)(3), as amended by Pub. L. No. 117-58, §80603(b)(3).
[666] Reg. §1.6050I-1(a)(1)(d)(ii); 31 C.F.R. §1010.330(a)(1)(ii).
[667] Reg. §1.6050I-1(a)(1)(d)(ii); 31 C.F.R. §1010.330(a)(1)(ii).
[668] Pub. L. No. 117-58, §80603(c). *See also Carman v. Yellen*, No. 5:22-149-KKC 2023 BL 246930 (E.D. Ky. July 19, 2023) (constitutional challenges to §6050I reporting mandate brought by plaintiffs engaged in cryptocurrency business transactions dismissed for lack of subject matter jurisdiction since reporting is not effective until 2024).
[669] Announcement 2024-4.
[670] Pub. L. No. 117-58, §80603(c). Announcement 2024-4 extends the effective date until the IRS issues final regulations implementing the §6050I amendments made by the Infrastructure Act.
[671] *See* T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).
[672] 89 Fed. Reg. 56,480 (July 9, 2024).
[673] Reg. §1.6045-1(a)(19).
[674] Reg. §1.6045-1(a)(12).

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meant to include assets such as NFTs and stablecoins, and such assets are directly referenced later in the regulations.[675] While the definition of digital asset is wide, sales of certain types of digital assets are excepted from reporting, such as loyalty program credits/rewards or assets designed for use solely within a video game or video game network.[676]

Broadly, the regulations alter Form 1099-B reporting by requiring brokers, including certain digital asset trading platforms, digital asset payment processors, and certain digital asset hosted wallets, to file a separate information return — the new Form 1099-DA — on a disposition of digital assets.[677] The regulations also address coordination with other information returns (such as Forms 1099-K and Forms 1099-S) where digital assets are used to purchase real estate, goods, or services.[678] The regulations also include alterations to regulations under §1001 and §1012 to explain how to compute gain or loss and basis for digital assets.[679]

1. Reg. §1.6045-1

a. Broker Scope

Under pre-2024 regulations, a "broker" is defined as any person, U.S. or foreign, that, in the ordinary course of a trade or business, stands ready to "effect sales" to be made by others.[680] In retaining this definition in the 2024 Final Regulations, digital asset brokers are included in the broader definition of those effecting sales on behalf of others, expanding the statutory definition that was limited to instances where such transacting is "for consideration" to persons acting in such capacity in the ordinary course of their trade or business.[681] The regulations further expand the broker definition to include persons who issue digital assets and regularly offer to redeem those digital assets similar to debt obligors that regularly issue and retire debt and corporations that regularly redeem their stock.[682]

To "effect" a sale includes acting as a "digital asset middleman" for a party with respect to the transaction.[683] Further, the regulations modify the definition of "sale" to include the following transactions involving digital assets:

- Any disposition of a digital asset in exchange for cash, stored-value cards, or a different digital asset;
- The delivery of a digital asset pursuant to the settlement of a forward contract, option, regulated futures contract, any similar instrument, or any other executory contract that would be treated as a sale of a digital asset if the contract had not been executory;
- For "real estate reporting persons,"[684] any disposition of a digital asset in exchange for real property;
- For "processors of digital asset payments,"[685] the payment by one party of a digital asset to the processor of digital asset payments in return for the payment of that digital asset, cash or a different digital asset to a second party; and
- Any disposition of a digital asset in consideration for any services provided by a broker, a real estate reporting person, or a processor of digital asset payments.[686]

Under the 2023 proposed regulations,[687] a digital asset middleman would be defined as any person who provides a "facilitative service" with respect to a sale of digital assets and who ordinarily would know or be in a "position to know" the identity of: (i) the party that makes the sale; and (ii) the nature of the transaction potentially giving rise to gross proceeds.[688] A person is in a position to know if they would be able to collect the relevant information by altering the services in a way to require the information from the party making the sale in order to receive the services or by altering the technology of the service to reveal the nature of the transaction.[689] This expansive definition was intended in part to capture non-custodial industry participants in the definition of broker.[690] However, in response to numerous comments, the government determined that it needs to further investigate how the reporting rules should work for non-custodial industry participants, and therefore the definition of a digital asset middleman is narrowed in the 2024 Final Regulations.[691] The government stated that it intends to "expeditiously" issue separate final regulations describing the information reporting rules for non-custodial industry participants.[692] Under the narrower rules, a facilitative service is limited to:

- The acceptance or processing of digital assets as payment for securities or other assets (assets that the sale of which that would ordinarily be reportable on Form 1099-B) by a broker that is in the business of effecting sales of such assets;
- Any service performed by a real estate reporting person with respect to a real estate transaction in which digital assets are paid by the real estate buyer in full or partial consideration for the real estate;
- The acceptance or processing of digital assets as payment for any service provided by a broker;
- Any payment service performed by a processor of digital asset payments; and
- The acceptance of digital assets in return for cash, stored-value cards, or different digital assets, to the extent provided by a physical electronic terminal or kiosk.[693]

[675] Preamble to T.D. 10000, 89 Fed. Reg. at 56,481. *See* Reg. §1.6045-1(d)(10).
[676] Reg. §1.6045-1(c)(3)(ii).
[677] *See* Preamble to T.D. 10000, 89 Fed. Reg. at 59,490.
[678] 89 Fed. Reg. 56,480 (July 9, 2024).
[679] *See* Reg. §1.1001-1, §1.1001-7, §1.1012-1.
[680] Reg. §1.6045-1(a)(1).
[681] Reg. §1.6045-1(a)(1). *See* §6045(c)(1), as amended by Pub. L. No. 117-58, §80603(a).
[682] *See* Reg. §1.6045-1(a)(1), §1.6045-1(a)(10)(i)(B).
[683] Reg. §1.6045-1(a)(10)(i)(D).
[684] An existing term defined in Reg. §1.6045-4(e), used in the context of reporting by real estate agents or similar parties on sales of real property.
[685] A new term added in Reg. §1.6045-1(a)(22).
[686] Reg. §1.6045-1(a)(9)(ii).
[687] *See* Prop. Reg. §1.6045-1, REG-122793-19, 88 Fed. Reg. 59,576 (Aug. 29, 2023).
[688] Prop. Reg. §1.6045-1(a)(21)(i).
[689] Prop. Reg. §1.6045-1(a)(21)(ii).
[690] *See e.g.*, Preamble to T.D. 10000, 89 Fed. Reg. at 59,586.
[691] Reg. §1.6045-1(a)(21). *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,494.
[692] *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,494.
[693] Reg. §1.6045-1(a)(21)(iii)(A)(2)(B).

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A real estate reporting person is only providing facilitative services if they have actual knowledge or ordinarily would know that digital assets were used to purchase the real estate.[694] A processor of digital asset payments is only providing facilitative services if it has actual knowledge or ordinarily would know the nature of the transaction and the gross proceeds therefrom.[695] The regulation's definition of digital asset middleman are meant to only capture digital asset industry participants that take possession of the digital assets being sold by their customers.[696] Note that direct possession of the assets is not required to qualify a person as a broker: the government intended that a broker should be treated as providing hosted wallet services even if it hires an agent to perform those services on its behalf.[697] This is true even if the agent is also in privity with the customer (and therefore could also qualify as the broker).[698]

As discussed in VIII.C., above, a processor of digital asset payments (PDAP) is any person who in the ordinary course of a trade or business regularly facilitates payments from one party to a second party by receiving digital assets from the first party and paying those digital assets, cash, or different digital assets to the second party.[699] In the 2023 proposed regulations, PDAPs were explicitly connected to the payment settlement entity (PSE) concept from §6050W.[700] The 2024 Final Regulations removes any explicit correlation between the two, but, in various examples, a broker is both a PDAP and a PSE.[701] This includes the transfer of a digital asset from one party to a second party as payment pursuant to an agreement between a payment processor and that second party involving a fixed exchange value applied to the digital asset received by that second party from the first party (and which will be treated as if the digital asset was paid by the first party to the payment processor in exchange for cash or a different digital asset that is then paid to the second party). A digital asset payment processor can also be any third party settlement organization or payment card issuer that facilitates payments using one or more digital assets, any payment of a digital asset by one party to the digital asset payment processor, or to a second party pursuant to instructions provided by that digital asset payment processor or its agent in exchange for goods or services provided to the first party.[702]

The proposed regulations covered reporting by U.S. digital asset brokers, controlled foreign corporations (CFC) digital asset brokers, and non-U.S. digital asset brokers.[703] As will be discussed further in VIII.G., below, the government indicated in the final regulation package that it intends to implement the Crypto-Asset Reporting Framework (CARF), which would cover reporting of sales by foreign persons in the U.S. and result in foreign jurisdictions reporting to the IRS about sales by U.S. persons abroad. Therefore, rules regarding CFC and non-U.S. digital asset brokers were deemed unnecessary, as in theory those rules would be shortly overridden by the CARF implementation. With the 2024 Final Regulations, reporting is therefore only required by U.S. digital asset brokers.[704] A U.S. digital asset broker is any digital asset broker who is (i) a U.S. person (other than a foreign branch or office); (ii) the U.S., a state or municipal government, or any instrumentality thereof; or (iii) a U.S. branch of a foreign person that agrees to be treated as a U.S. person.[705]

Commentary: While the broad scope of "broker" under the proposed rules — persons effecting sales in the course of their trade or business on behalf of others, digital asset middlemen providing facilitative services, PDAPs, and certain digital asset issuers among others — there was a wide array of impacted digital asset marketplace participants. As of the 2024 Final Regulations, the scope has been narrowed for the time being. For businesses transacting in digital assets on behalf of account holders, such as a traditional financial institution that offers digital asset trading or a centralized exchange, the rules likely apply to require these persons to report customers' digital asset trading activity, whether such trading is effected on chain or on an omnibus basis using internal ledgering. If these digital asset brokers are providing hosted wallet services to custody customers' private keys, they may also be required to track and report cost basis on digital assets that qualify as covered securities.[706] Payment processors that accept payments of digital assets from customers on behalf of vendors are also likely digital asset brokers with respect to those customers as they effect the sale of digital assets in exchange for the vendor's goods or services.[707] Where persons are settling payments with respect to digital asset sales by a vendor — for example, where a payment processor is settling payment of a customer's purchase of an NFT with the vendor selling the NFT — it is also possible that the payment processor would qualify as a digital asset broker (including middleman) with respect to the vendor's sale of their digital assets.

Wallet providers are included under the final rules to the extent that they act as an agent for the customer in effecting a sale and ordinarily would know the gross proceeds from the sale.[708] For the moment, 2024 Final Regulations exclude decentralized exchanges (DeFi) if they are acting in a non-custodial capacity (and are not providing any other facilitative service as defined in the 2024 Final Regulations).[709]

A Form 1099 filer is generally not required to issue a Form 1099 to an "exempt recipient." Different Forms 1099 have different definitions of exempt recipients.[710] The existing §6045 rules have their own list of exempt recipients.[711] The 2024 Final Regulations now include a U.S. digital asset broker as an ex-

[694] Reg. §1.6045-1(a)(21)(iii)(B)(2).
[695] Reg. §1.6045-1(a)(21)(iii)(B)(4).
[696] Preamble to T.D. 10000, 89 Fed. Reg. at 56,493.
[697] *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,498. *See also* Reg. §1.6045-1(a)(15)(i)(J).
[698] Preamble to T.D. 10000, 89 Fed. Reg. at 56,498. There should be no risk of duplicative reporting in such cases, as the existing "multiple broker rule" in Reg. §1.6045-1(c)(3)(iii) has been extended to apply to digital asset brokers. *See* Reg. §1.6045-1(c)(3)(iii)(B).
[699] Reg. §1.6045-1(a)(22).
[700] Prop. Reg. §1.6045-1(a)(22)(i)(B), Prop. Reg. §1.6045-1(a)(22)(i)(C).
[701] The coordination rules between §6045 and §6050W are discussed further in VIII.C., above.
[702] *See, e.g.*, Reg. §1.6045-1(b)(12), §1.6045-1(b)(14).
[703] Prop. Reg. §1.6045-1(g)(4).
[704] Reg. §1.6045-1(a)(1).
[705] Reg. §1.6045-1(g)(4)(i)(A)(1).
[706] Reg. §1.6045-1(a)(15)(i)(J).
[707] Reg. §1.6045-1(a)(21).
[708] Preamble to T.D. 10000, 89 Fed. Reg. at 56,491.
[709] Preamble to T.D. 10000, 89 Fed. Reg. at 56,491.
[710] *See, e.g.*, Reg. §1.6049-4(c)(1)(ii); §1.6041-3(p).
[711] Reg. §1.6045-1(c)(3)(i)(B).

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empt recipient under these rules.[712] The main practical application of this new rule is to avoid duplicative reporting where two persons may be considered U.S. digital asset brokers for the same transaction. In such a case, only the broker who first credits the gross proceeds from the sale to the customer's wallet or account is required to report the sale.[713] The second broker, on receipt of an exemption certificate, will not file an additional Form 1099-DA, whether to the first broker or to that broker's customer.[714] Generally, exemption certificates are Forms W-9, *Request for Taxpayer Identification Number and Certification*.[715] As of now, the Form W-9 has not been updated to allow a person to identify as a U.S. digital asset broker. The government instead is allowing U.S. digital asset brokers to file written statements indicating they are in fact exempt recipients until such time as the Form W-9 is updated.[716]

b. Reportable Digital Assets

A digital asset is any digital representation of value recorded on a cryptographically secured distributed ledger (or any similar technology), regardless of whether each individual transaction is actually recorded on that ledger.[717] However, U.S. dollars or convertible foreign currency issued by a government or central bank that are in digital form is not a digital asset for purposes of the broker reporting regulations.[718]

The 2023 proposed regulations excluded certain assets from the definition of digital assets, such as assets that exist only in a closed system (such as a video game token).[719] Instead of building such exceptions into the definition of digital assets, the 2024 Final Regulations identify a number of excepted sales involving closed systems, including the following:

- A disposition of a digital asset representing loyalty program credits or rewards offered by a provider of non-digital asset goods or services to its customers, in exchange for non-digital asset goods or services from the provider or other participating merchants, provided that the digital asset is not capable of being transferred, exchanged, or otherwise used outside the cryptographically secured distributed ledger network of the loyalty program;
- A disposition of a digital asset created and designed for use within a video game or network of video games in exchange for different digital assets also created and designed for use within that video game or video game network, provided the disposed of digital assets are not capable of being transferred, exchanged, or otherwise used outside of the video game or video game network;
- A disposition of a digital asset representing information with respect to payment instructions or the management of inventory that does not consist of digital assets, within a cryptographically secured distributed ledger (or network of interoperable distributed ledgers) that provides access only to users of such information provided the digital assets disposed of are not capable of being transferred, exchanged, or otherwise used outside such distributed ledger or network; or
- A disposition of a digital asset offered by a seller of goods or services to its customers that can be exchanged or redeemed only by those customers for goods or services provided by such seller if the digital asset is not capable of being transferred, exchanged, or otherwise used outside the cryptographically secured distributed ledger network of the seller and cannot be sold or exchanged for cash, stored-value cards, or qualifying stablecoins at a market rate inside the seller's distributed ledger network.[720]

Generally, stablecoins and nonfungible tokens (NFTs) are fully reportable as digital assets. However, as will be discussed below, brokers can opt to apply special reporting methods to certain qualifying stablecoins and specified NFTs.

Tokenized securities are also treated as digital assets. A tokenized security is a type of dual classification asset--an asset that can be treated both as a security reportable on Form Form 1099-B and as a digital asset reportable on Form 1099-DA (dual classification assets are also discussed in VIII.B., above). A tokenized security is any dual classification asset that provides the holder with an interest in a security (other than a security that is also a digital asset) or constitutes an asset registered with Securities and Exchange Commission (other than a security that is solely an investment contract).[721] "Qualifying" stablecoins (which will be discussed further below) are not tokenized securities. Dispositions of tokenized securities are reportable on Form 1099-DA and not on Form 1099-B (see VIII.B., above, for the discussion of dual classification assets that are reportable on Form 1099-B and not on Form 1099-DA).

Notice 2024-57, released concurrently with the 2024 Final Regulations, identifies six transactions for which the government intends to further study application of the §6045 reporting rules.[722] Prior to further guidance being released, these transactions are not reportable on Form 1099-DA. The six listed transactions are:

- Wrapping and unwrapping transactions;
- Liquidity provider transactions;
- Staking transactions;
- Type 1 digital asset lending transactions;
- Type 2 digital asset lending transactions; and
- NPC transactions.[723]

[712] Reg. §1.6045-1(c)(3)(i)(B)(12). However, U.S. digital asset brokers that are registered investment advisers who are not otherwise classified as exempt recipients are not covered by this exemption.
[713] Reg. §1.6045-1(c)(3)(iii)(B).
[714] Reg. §1.6045-1(c)(3)(iii)(B).
[715] Reg. §1.6045-1(c)(3)(iii)(B).
[716] Notice 2024-56, §3.07.
[717] Reg. §1.6045-1(a)(19)(i) .
[718] Reg. §1.6045-1(a)(19)(i) .
[719] Preamble to T.D. 10000, 89 Fed. Reg. at 59,582.
[720] Reg. §1.6045-1(c)(3)(ii).
[721] Reg. §1.6045-1(c)(8)(i)(D).
[722] Notice 2024-57, §3.01.
[723] Notice 2024-57, §3. All transactions are defined in the Notice.

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c. Reportable Information

The regulations require persons who qualify as digital-asset brokers to report on the new Form 1099-DA.[724] Unique to the new form, digital-asset brokers must report:

- The name and number of units of the digital asset sold;
- The sale date;[725]
- The gross proceeds amount (after reduction for digital asset transaction costs;
- Whether the sale was for cash stored-value cards, or in exchange for services, or other property; and
- Whether the broker used customer-provided acquisition information when determining the specific identification of the units sold.[726]

The proposed regulations also required the transaction ID and the wallet address from which the disposed of digital asset was transferred on the Form 1099-DA.[727] While these requirements were removed, brokers are still required to collect and retain this information for up to seven years after the transfer.[728]

When a tokenized asset is sold, the broker must also report the CUSIP or other security identifier number and any other relevant information that would apply to a similar security (such as supplemental information for options and debt instruments).[729]

Brokers who sell a digital asset that was held by them in a hosted wallet on behalf of the customer and was transferred into an account at the broker must also report the date of such transfer in and the number of units transferred in by the customer.[730]

Commentary: Now that digital assets qualify as covered securities, customers holding accounts with brokers will need an ability to specify the digital asset "lot" they intend to sell to ensure the appropriate gain or loss impact is in the control of the taxpayer and known prior to Form 1099 reporting. For example, where a customer purchases digital assets in an account that qualify as covered securities at different dates, times, and prices, the customer may want to specifically identify the digital assets they intend to sell or transfer where they are transacting with some portion of their total holdings at the digital asset broker. Under the pre-2024 §6045 regulations applicable to securities, a customer can specifically identify securities to be sold or transferred prior to the settlement date of the transaction, including through standing instructions.[731] Absent a specific identification, the broker reports using the first-in, first-out (FIFO) method, reporting first the securities for which the acquisition date is unknown followed by the earliest securities acquired.[732] Under the 2024 Final Regulations applicable to digital assets, customers are still permitted to provide timely specific identification of the covered digital assets the customer intends to sell, although these rules require identification no later than the date and time of sale rather than settlement because, in the blockchain context, transactions can be recorded on the blockchain or within internal ledgers without the two-day settlement period used in current securities transactions.[733] To determine which units were in fact identified for sale, brokers are allowed to rely on customer-provided acquisition information (e.g., date and time of acquisition of specific digital assets) if the information is "reasonably reliable."[734] The regulations provide examples of reasonably reliable information, such as purchase or trade confirmations at other brokers or immutable data on a public distributed ledger.[735]

(1) Cost Basis

The regulations expand the existing acquisition date and adjusted basis rules to include certain digital assets. As before, the broker is required to include the customer's acquisition date and adjusted basis of any "covered security."[736] In general, a covered security refers to any "specified security" acquired on or after the applicable date if the cost basis is known to the broker, whether because it was acquired through the broker or because the broker receiving custody of the security receives a transfer statement under §6045A.[737] Digital assets are a specified security.[738] Further, digital assets are a covered security if acquired on or after January 1, 2026, in a customer's account by a broker providing custodial services for the relevant asset in exchange for cash, stored-value cards, different digital assets, broker services, or real property.[739] "Custodial services" includes providing a hosted wallet — electronically storing private keys to digital assets held by others.[740] By contrast, unhost-

[724] Reg. §1.6045-1(d)(2)(i)(B).

[725] Reg. §1.6045-1(d)(2)(i)(B)(3). Note that the proposed regulations also required the transaction time, reported in Coordinated Universal Time, down to the second. Both the requirement to report down to the second and to report using Coordinated Universal Time were dropped. Brokers can now report in any time zone, as long as it is consistent and results in accurate reporting of holding periods. *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,501.

[726] Reg. §1.6045-1(d)(2)(i)(B).

[727] Prop. Reg. §1.6045-1(d)(2)(i)(B).

[728] Reg. §1.6045-1(d)(11).

[729] Reg. §1.6045-1(d)(2)(i)(B)(6).

[730] Reg. §1.6045-1(d)(2)(i)(B)(7).

[731] Reg. §1.6045-1(d)(2)(ii)(B)(2), §1.1012-1(c)(8).

[732] Reg. §1.6045-1(d)(2)(ii).

[733] *See* Reg. §1.6045-1(d)(2)(ii)(B), §1.1012-1(j)(3)(ii).

[734] Reg. §1.6045-1(d)(2)(ii)(B)(4).

[735] Reg. §1.6045-1(d)(2)(ii)(B)(4).

[736] §6045(g).

[737] Reg. §1.6045-1(a)(15), §1.6045-1(a)(15)(i)(G).

[738] Reg. §1.6045-1(a)(14)(v).

[739] Reg. §1.6045-1(a)(15)(i)(J). The proposed regulations kept the statutory date of January 1, 2023, for a digital asset to be considered a covered security for which basis tracking is required. In response to comments regarding the difficulty of implementing basis tracking systems before the 2024 Final Regulations had been released explaining how to determine basis and rules to identify disposed-of assets, the government aligned the acquisition applicable date for covered securities to the effective date for the remainder of the regulations. *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,516.

[740] Reg. §1.6045-1(a)(25)(ii). The proposed regulations defined a digital asset as a covered security if it was "acquired in a customer's account by a broker ***providing hosted wallet services***" instead of the current version "providing custodial services." *See* Reg. §1.6045-1(a)(15)(i)(J). The preamble to the 2024 Final Regulations explains this change by stating that a broker should be considered to be providing custodial services even if the broker "contracts with another business to perform the hosted wallet services for the broker's customers on the broker's behalf." This altered language captures brokers who do not themselves directly custody the customer's digital assets. *See* Preamble to T.D. 10000, 89 Fed. Reg. at 56,498. The services provided by the broker's agent will be ascribed to the broker. This is true even if the agent is also in privity with the customer – and so would also be considered a broker of the customer. Any issue of duplicative reporting in such a case is dealt with by the multiple broker rule.

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ed wallets are defined as a non-custodial means of storing private keys.[741]

Additionally, options on digital assets granted or acquired in an account on or after January 1, 2026, and forward contracts requiring delivery of digital assets entered into or acquired in an account on or after January 1, 2026, are covered securities.[742]

Under the pre-2024 regulations, any person who transfers a covered security to a broker must provide the broker a transfer statement.[743] The 2024 Final Regulations do not address how the transfer statement rules apply to transfers of covered securities that are digital assets. Instead, the §6045A regulations were updated to state that no transfer statement is required to be provided for transfers of digital assets.[744] The preamble to the 2024 Final Regulations indicates that the government does intend to issue final regulations in the future regarding transfer statements.[745]

(2) Optional Aggregate Reporting Method

While the rules generally require transaction-by-transaction reporting, the 2024 Final Regulations add optional aggregate reporting methods for certain stablecoins and NFTs. Under the optional method for "qualifying stablecoins," a broker may report "designated sales" of qualifying stablecoins on an aggregate basis.[746] The broker will only have to file one Form 1099-DA for each type of qualifying stablecoin (so the broker may have to file more than one Form 1099-DA if more than one type of qualifying stablecoin is sold). The broker must include the following information for each qualifying stablecoin:

- The name, address, and taxpayer identification number of the customer;
- The name of the qualifying stablecoin sold;
- The aggregate gross proceeds for the year from designated sales of the qualifying stablecoin (after reduction for the allocable digital asset transaction costs);
- The total number of units of the qualifying stablecoin sold in designated sales of the qualifying stablecoin;
- The total number of designated sale transactions of the qualifying stablecoin; and
- Any other information required by the form or instructions.[747]

Brokers are not required to report "non-designated sales" of qualifying stablecoins.[748] Brokers are also not required to report designated sales of qualifying stablecoins if the gross proceeds from all designated sales do not exceed $10,000 for the year.[749] A qualifying stablecoin is any digital asset that is designed to track one-to-one a single convertible currency issued by a government or a central bank (e.g., the U.S. dollar), is accepted by payment by persons other than the issuer, and has one of two stabilization mechanisms: either (1) the mechanism causes the unit value of the digital asset not to fluctuate from the unit value of the tracked currency it was designed to track by more than 3% over any consecutive 10-day period[750] or (2) the issuer is required by regulation to redeem a unit of the digital asset at any time on a one-to-one basis for the tracked currency that the digital asset was designed to track.[751] A designated sale is the sale of a qualifying stablecoin in exchange for other qualifying stablecoins.[752] A non-designated sale is the sale of a qualifying stablecoin in exchange for cash, non-digital asset property, or digital assets that are not qualifying stablecoins.[753] This means, for stablecoins, a broker may have to report in up to three different ways:

(1) Sales of non-qualifying stablecoins are reported on Form 1099-DA on a transaction-by-transaction basis, like other digital assets;

(2) Designated sales of qualifying stablecoins with gross proceeds in excess of $10,000 are reported on an aggregate basis on Form 1099-DA (one Form 1099-DA per type of qualifying stablecoin); and

(3) No reporting for non-designated sales of qualifying stablecoins and designated sales of qualifying stablecoins if aggregate gross proceeds are $10,000 or less.

Under the optional method for "specified nonfungible tokens," a broker may report sales of specified NFTs on an aggregate basis.[754] The broker will only have to file a single Form 1099-DA for all types of specified NFTs (unlike in the case for qualifying stablecoins). The broker must include the following information:

- The name, address, and taxpayer identification number of the customer;
- The aggregate gross proceeds for the year from all sales of specified NFTs (after reduction for the allocable digital asset transaction costs);
- The total number of specified NFT sales;
- To the extent ordinarily known by the broker, the aggregate gross proceeds that is attributable to the first sale by a creator or minter of the specified NFT; and
- Any other information required by the form or instructions.[755]

Brokers are not required to report sales of specified NFTs if the gross proceeds from all sales do not exceed $600 for the year.[756] A specified NFT is any digital asset that is indivisible,[757]

[741] Reg. §1.6045-1(a)(25)(iii).
[742] Reg. §1.6045-1(a)(15)(i)(H), §1.6045-1(a)(15)(i)(K).
[743] *See* §6045A; pre-2024 Reg. §1.6045A-1(a)(1).
[744] Reg. §1.6045A-1(a)(1)(vi).
[745] Preamble to T.D. 10000, 89 Fed. Reg. at 56,532.
[746] Reg. §1.6045-1(d)(10)(i)(A).
[747] Reg. §1.6045-1(d)(10)(i)(B).
[748] Reg. §1.6045-1(d)(10)(i)(A).
[749] Reg. §1.6045-1(d)(10)(i)(A). If, for example, designated sales of one type of qualified stablecoin are $7,000 and of another type are $6,000, sales of both stablecoins must be reported, since the aggregate amount of all qualified stablecoins is in excess of $10,000. Reg. §1.6045-1(d)(10)(i)(B).
[750] Reg. §1.6045-1(d)(10)(ii)(B)(1). The tracking must be done per calendar year using UTC.
[751] Reg. §1.6045-1(d)(10)(ii).
[752] Reg. §1.6045-1(d)(10)(i)(C).
[753] Reg. §1.6045-1(d)(10)(i)(C).
[754] Reg. §1.6045-1(d)(10)(iii)(A).
[755] Reg. §1.6045-1(d)(10)(iii)(B).
[756] Reg. §1.6045-1(d)(10)(iii)(B).
[757] Reg. §1.6045-1(d)(10)(iv)(A). A digital asset is indivisible if it cannot be subdivided into smaller units without losing its intrinsic value or function.

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unique,[758] and does not provide the holder with an interest in any excluded property.[759]

The de minimis reporting thresholds for designated sales of qualified stablecoins and for sales of specified NFTs are calculated on a customer basis, not on an account basis.[760] Specifically, the regulations define customer for this purpose to mean the person whose tax identification number (TIN) would be reported on the relevant Form 1099.[761] If multiple accounts have the same customer TIN associated with them, proceeds to those accounts will be aggregated within the same payor (broker whose name and TIN will be used for filing Form 1099-DA).

(3) Digital Asset Transaction Costs

Transacting in various digital assets can result in fees and other costs, such as "gas fees" which are generally denominated in a blockchains native unit of cryptocurrency and required to record a transaction on a blockchain. The 2024 Final Regulations detail how these fees, or other fees incurred in a sale or disposition, such as traditional broker or exchange fees, are allocated for purposes of gross proceeds and basis reporting. For purposes of the regulations, a digital asset transaction cost is the amount paid in cash or property (including digital assets) to effect the sale, disposition, or acquisition of a digital asset.[762] These costs also include transaction fees, transfer taxes, and commissions charged commercially by brokers or other service providers to compensate them for their services or to cover the gas fees that the brokers or other service providers must bear in providing the services to their customers.[763]

Digital asset transactions costs are allocated to each relevant sale of a digital asset. Generally, the total digital asset transaction costs paid by the customer are allocable to the sale of the digital asset.[764] This includes situations where the customer holds other digital assets in a wallet with the broker and the broker sells units from those other digital assets to cover the transaction fee of the initial digital asset disposed of (for example, where the broker charges fees in its own proprietary digital asset)–the fair market value of the disposed-of other digital asset is treated as a cost of selling the initial digital asset.[765] If the customer transfers one digital asset in exchange for a different digital asset and transaction fees are withheld from the digital assets received, the fair market value of the received assets that are withheld is treated as a transaction cost allocable to the disposition of the first digital asset.[766] In the last two situations, the sale of the digital assets used to cover the transaction costs is treated as a separate sale of digital assets by the customer, potentially subject to separate Form 1099-DA reporting.[767] However, where the transaction costs are withheld from the digital assets received, the resulting sale is specifically excepted from reporting.[768]

The calculation of reportable gross proceeds includes accounting for allocated digital asset transaction costs. Generally, the amount of gross proceeds is reduced by any allocable digital asset transaction costs.[769] In certain circumstances, gross proceeds is increased by the fair market value of services received, specifically including the fair market value of services giving rise to digital asset transaction costs.[770] These services are allocated to the digital asset that is disposed of to cover the transaction costs. In the situation discussed above where digital asset transaction costs are covered by disposing of other, already-owned digital assets, the amount of gross proceeds from that sale reported on a separate Form 1099-DA is the fair market value of the services received (which should equal the fair market value of the digital asset disposed of to pay the transaction. costs).[771] Where the digital asset transaction costs are covered by disposing of digital assets withheld from the amount received by the customer, the same principle applies (however, no separate Form 1099-DA is filed because such a sale is excepted).[772] Finally, where the transaction costs are covered by withholding from the digital assets transferred by the customer, the gross proceeds will be increased by the value of the services received (again, which equal the fair market value of the digital assets withheld and disposed of to pay the transaction costs). In this case, only one Form 1099-DA is filed (because only one type of digital asset is being disposed of in the same transaction), and the gross proceeds amount is increased by the fair market value of the services received (which should equal the fair market value of the digital assets disposed of to cover the transaction costs) and decreased by the allocated transaction costs.[773] The 2024 Final Regulations contain a number of examples, cited above, to illustrate the application of these rules.

For digital assets that are specified securities acquired by a broker on a customer's behalf, the initial cost basis is the amount of cash paid by the customer or, if acquired in exchange for property, the fair market value of the digital assets received, increased by the digital asset transaction costs incurred to acquire the digital assets.[774] Any digital asset costs incurred, including on digital assets disposed of to acquire the digital assets received, are allocated to the basis of the acquired digital assets.[775]

(4) Other Reporting Issues

PDAPs are not required to report on a customer's sales if the gross proceeds (less allocable digital asset transaction costs) from all sales effected by the PDAP for that customer

[758] Reg. §1.6045-1(d)(10)(iv)(B). A digital asset is unique if it includes a unique digital identifier, other than a digital asset address, that distinguishes that digital asset from all other digital assets.

[759] Reg. §1.6045-1(d)(10)(iv)(B). Excluded property is a security, a commodity, a regulated futures contract, a forward contract, or a digital asset (other than a specified NFT), all as defined in the §6045 regulations.

[760] Reg. §1.6045-1(d)(10)(v). .

[761] Reg. §1.6045-1(d)(10)(v).

[762] Reg. §1.6045-1(d)(5)(iv)(A).

[763] Reg. §1.6045-1(d)(5)(iv)(A).

[764] Reg. §1.6045-1(d)(5)(iv)(B).

[765] Reg. §1.6045-1(d)(5)(v)(A) *Ex.* 1.

[766] Reg. §1.6045-1(d)(5)(iv)(C).

[767] Reg. §1.6045-1(d)(5)(v)(A)-§1.6045-1(d)(5)(v)(C) *Exs.* 1, 2 3.

[768] Reg. §1.6045-1(c)(3)(ii)(C).

[769] Reg. §1.6045-1(d)(5)(ii)(A).

[770] Reg. §1.6045-1(d)(5)(ii)(A).

[771] Reg. §1.6045-1(d)(5)(v)(A) *Ex.* 1.

[772] Reg. §1.6045-1(d)(5)(v)(C) *Ex.* 3.

[773] Reg. §1.6045-1(d)(5)(v)(C) *Ex.* 2. In theory, this should mean that the increase to gross proceeds from the services received is offset by the digital asset transaction costs, resulting in no adjustment to the gross proceeds.

[774] Reg. §1.6045-1(d)(6)(ii)(A), §1.6045-1(d)(6)(ii)(C)(1).

[775] Reg. §1.6045-1(d)(6)(ii)(C)(2).

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during the year does not exceed $600.[776] Note that the gross proceeds from sales of qualifying stablecoins and specified NFTs are not included when calculating whether the gross proceeds of all sales effected by the PDAP exceed $600.[777]

Certain dual classification assets are reportable on Form 1099-B instead of on Form 1099-DA. See VIII.B., above, for further discussion of these assets. Where a broker is also a payment settlement entity, the broker may have to report on both Form 1099-DA and Form 1099-K. See VIII.C., above, for further discussion of the coordination rules between §6045 and §6050W reporting.

Currently, exchange traded products are available for investors to get exposure to digital assets. These are often structured as grantor trusts that qualify as widely held fixed investment trusts (WHFITs).[778] Special reporting rules apply to sales of assets held in a WHFIT by an interest holder in the trust and to sales of interests in the WFHIT.[779] If any information reportable under the §6045 regulations is required to reported under the special WHFIT rules, the WHFIT rules control.[780] Brokers reporting under the WHFIT rules are treated as complying in full with the covered security reporting rules.[781] This special reporting regime has been extended to sales of digital assets held in a WHFIT.[782] Under the special reporting regime, where the interest holders hold their trust interest directly, the trustee reports the amounts paid to a WHFIT for sales of assets held by the WHFIT that are attributable to the interest holder in the trust to the IRS on Form 1099-DA.[783] For persons who hold trust interests through a broker, the broker rather than the trustee reports this information to the IRS on Form 1099-DA.[784] The WHFIT rules include reduced reporting obligations in certain circumstances, for example where total sales proceeds of a WHFIT's assets do not exceed 5% of the net asset value of the trust.[785]

d. Effective Dates

Section 80603(b)(1) of the Infrastructure Act provides that specified securities which are digital assets are treated as covered securities for purposes of basis reporting if they are acquired on or after January 1, 2023.[786] The 2024 Final Regulations delay this date, instead treating such specified securities as covered securities if they are acquired on or after January 1, 2026.[787] Similarly, brokers effecting sales of non-digital asset options on digital-assets and non-digital-asset forward contracts on digital assets are required to provide adjusted basis reporting for sales of these assets if they were granted, entered into, or acquired on or after January 1, 2026.[788] The final rules therefore require basis tracking for sales of covered securities occurring on or after January 1, 2026.[789]

Reporting of gross proceeds under the final rules is to begin one year earlier than cost basis reporting, requiring reporting on sales effected on or after January 1, 2025.[790] However, in Notice 2024-56, the government provided a safe harbor for sales effected during calendar year 2025. If a broker makes a good faith effort to file Forms 1099-DA for sales effected in 2025, the IRS will not impose penalties under §6721 or §6722 for any failure to file.[791] While "good faith effort" is not defined in the notice, a broker will not have made a good faith effort if it files returns or furnishes payee statements after the later of: (1) the date that the IRS first contacts the broker concerning an examination of such broker; or (2) one year after the original due date for filing.[792]

The 2024 Final Regulations also include a transition period for preexisting accounts of digital-asset brokers. For sales of digital assets effected before January 1, 2027, that were held in an account established at a broker before January 1, 2026, digital-asset brokers may treat a customer as an exempt foreign person provided that the customer has not previously been classified as a U.S. person by the broker, and the information that the broker has for the customer does not include a U.S. residence address.[793]

2. Other Modified Regulations

Reg. §1.6045-4 requires certain persons (generally, real estate agents, closing lawyers, etc.) to report on Form 1099-S the proceeds from the sale of reportable real estate.[794] The 2024 Final Regulations add a coordinating rule that, where real estate is purchased with digital assets, the person who is receiving the real estate is treated as selling their digital assets, which is reportable on the new Form 1099-DA.[795]

[776] Reg. §1.6045-1(d)(2)(i)(C).

[777] Reg. §1.6045-1(d)(2)(i)(C). The preamble to the 2024 Final Regulations provides an example where a PDAP processes $500 worth of sales of other than qualifying stablecoins and specified NFTs and $9,000 worth of sales of qualifying stablecoins. The PDAP would not be required to report at all because the reporting threshold for the qualifying stablecoins is separately calculated ($9,000 is less than $10,000 threshold) from the $600 PDAP threshold (remaining $500 is less than the $600 threshold). Preamble to T.D. 10000, 89 Fed. Reg. at 56,510.

[778] Reg. §1.671-5(b)(22) (defining WHFIT).

[779] Reg. §1.6045-1(d)(9) See also Reg. §1.671-5(k) ("Coordination with other information reporting rules. In general, in cases in which reporting is required for a WHFIT under both this section and subpart B, part III, subchapter A, chapter 61 of the Internal Revenue Code (Sections 6041 through 6050S) (Information Reporting Sections), the reporting rules for WHFITs under this section must be applied. The provisions of the Information Reporting Sections and the regulations thereunder are incorporated into this section as applicable, but only to the extent that such provisions are not inconsistent with the provisions of this section.").

[780] Reg. §1.6045-1(d)(9).

[781] Reg. §1.6045-1(d)(9).

[782] Reg. §1.6045-1(d)(9). *See also* Preamble to T.D. 10000, 89 Fed. Reg. at 56,490.

[783] Reg. §1.671-5(d)(1)(i)(A), §1.671-5(d)(2)(ii)(E).

[784] Reg. §1.671-5(d)(1)(ii)(B), §1.671-5(d)(2)(ii)(E).

[785] *See, e.g.*, Reg. §1.671-5(c)(2)(iv)(B), §1.671-5(d)(2)(ii)(E) (requiring only reporting of sales proceeds actually distributed to the trust interest holders).

[786] §6045(g)(3)(C)(iii).

[787] Reg. §1.6045-1(a)(15)(i)(J).

[788] Reg. §1.6045-1(a)(15)(i)(H) .

[789] Reg. §1.6045-1(d)(2)(i)(D).

[790] Reg. §1.6045-1(q); §1.6050W-1(j).

[791] Notice 2024-56, §3.01.

[792] Notice 2024-56, §3.01.

[793] Reg. §1.6045-1(g)(4)(vi)(F).

[794] Reg. §1.6045-4(a).

[795] Reg. §1.6045-1(a)(21)(iii)(B)(2). *See also* Reg. §1.6045-4(r)(10) (Example 10, showing a real estate reporting person reporting a transaction on both Form 1099-DA and Form 1099-S). If the buyer purchases the real estate using digital assets, the buyer is treated as having sold digital assets and will receive a Form 1099-DA, while the seller of the real estate will receive Form 1099-S.

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Similarly, the new regulations under §6050W provide coordination rules for Form 1099-K reporting where the third-party settlement organization or payment card issuer is a processor of digital-asset payments. Where the person purchasing the goods or services does so using digital assets, such disposition of digital assets must be reported under the digital-asset broker reporting rules.[796] The provider of goods and services would still receive a Form 1099-K per §6050W unless the goods or services provided are themselves a digital asset, in which case the provision of goods or services would be reported under §6045 and not §6050W.[797] This is discussed in greater detail in VIII.C., above.

As mentioned above, §6045A and its regulations generally require that a broker who transfers a specified security from one broker to another must provide the receiving broker with a transfer statement.[798] The 2024 Final Regulations currently exempt digital assets from such reporting.[799] Similarly, §6045B and its proposed regulations, which require any issuer of a specified security that takes an organizational action that affects the basis of the issued security must file a report of such a change, exempts digital assets from the issuer statement reporting requirements.[800]

The 2024 Final Regulations also provide minor updates to the backup withholding rules and the penalty provisions for failure to file information returns. Payments reportable on the new Form 1099-DA are subject to backup withholding in the same manner as payments reportable on Form 1099-B.[801] Similarly, penalties for failure to file Form 1099-B with the IRS and furnish to the payee are extended to apply the same way to the new Form 1099-DA.[802] Generally, the effective dates for backup withholding are in line with the effective dates for reporting. However, Notice 2024-56 exempts sales of digital assets effected in calendar year 2025 from backup withholding.[803] For sales effected in calendar year 2026, brokers do not need a certified TIN from any customer who opened an account with the broker before January 1, 2026 and if the broker has successfully submitted the customer's TIN to the IRS' TIN Matching Program before effecting the relevant sale.[804] For sales effected before January 1, 2027, where the consideration is digital assets other than specified NFTs, the amount that is required to be backup withheld is limited to the FMV on liquidation of 24% of the received digital assets.[805] Backup withholding on sales of specified NFTs is not required until the government issues further guidance.[806] Similarly, backup withholding on sales of digital assets effected by PDAPs is not required until the government issues further guidance.[807] Backup withholding on sales of digital assets effected by real estate reporting persons is not required until the government issues further guidance.[808]

Finally, the regulations include amendments to §1001 and §1012 addressing the computation of gain or loss on digital-asset sales and the cost basis for digital-asset acquisitions.[809] Under the §1001 regulations, the amount realized is the sum of: (i) the cash received; (ii) the fair market value of any property received (including digital assets) or the issue price of a debt instrument issued in exchange for the digital assets; and (iii) the fair market value of any services received.[810] This amount is reduced by any "digital asset transaction costs" allocable to the disposition.[811] The fair market value of a digital asset is determined at the date and time of the disposition of the digital asset.[812] Finally, these regulations clarify that when a digital asset is used to pay a transaction fee, even in a disposition or exchange of non-digital assets or from a nontaxable transfer from one wallet of a taxpayer to another, the payment of that fee is treated as a disposition of a digital asset resulting in gain or loss.[813]

The amount realized from the sale or other disposition of a digital asset generally is the sum of the cash received and the fair market value of the property and services received in exchange, reduced by any digital asset transaction costs allocable to the disposition of the transferred digital asset. If the fair market value of the property and services received cannot be determined with reasonable accuracy, the fair market value of such property or services is considered to equal the fair market value of the digital asset disposed of at the time of the disposition.

The §1012 regulations cover determination of basis and identification rules for digital-asset transactions. The existing basis rules were extended to digital assets: the basis of digital assets acquired in an exchange is generally equal to the cost at the date and time of the exchange, plus any allocable transaction costs.[814] Where digital assets are received in exchange for different digital assets, the cost is the fair market value of the transferred digital assets as described in the §1001 regulations and the full amount of transaction costs is allocated to the disposition of the transferred digital assets.[815] The identification rules help identify which units of a digital asset held in an account or wallet are disposed or transferred. Generally, taxpay-

[796] Reg. §1.6050W-1(c)(5).
[797] Reg. §1.6050W-1(c)(5).
[798] Reg. §1.6045A-1(a)(1)(i).
[799] Reg. §1.6045A-1(a)(1)(vi).
[800] Reg. §1.6045B-1(a)(6).
[801] *See generally* Reg. §31.3406(b)(3)-2 (which now includes special backup withholding rules applicable to sales effected by PDAPs, sales of specified NFTs and sales of qualifying stablecoins).
[802] Reg. §301.6721-1(h)(3)(iii), §301.6722-1(e)(2)(viii).
[803] Notice 2024-56, §3.01.
[804] Notice 2024-56, §3.02.
[805] Notice 2024-56, §3.06. The concern was that, because some digital assets have highly volatile prices, a broker who withholds a certain amount of digital assets received that, at the time of the transaction, equaled 24% of the FMV but that, at time of liquidating those withheld assets, could be valued substantially lower than 24% of the FMV at time of transfer, the broker would be personally liable for under withholding penalties.
[806] Notice 2024-56, §3.03.
[807] Notice 2024-56, §3.05.
[808] Notice 2024-56, §3.04.
[809] *See* T.D. 10000, 89 Fed. Reg. 56,480 (July 9, 2024).
[810] Reg. §1.1001-7(b)(1)(i).
[811] Reg. §1.1001-7(b)(1)(i). This regulation defines digital-asset transaction costs as the amount paid, in cash, or property (including digital assets), to affect the disposition or acquisition of a digital asset and includes transaction fees, transfer taxes, and any other commissions. The regulations also outline how these costs are allocated based on the consideration provided. *See* Reg. §1.1001-7.
[812] Reg. §1.1001-7(b)(3).
[813] Reg. §1.1001-7(b)(1)(ii).
[814] Reg. §1.1012-1(h)(1). See V.D., above, for further discussion on digital asset transaction costs.
[815] Reg. §1.1012-1(h)(3), §1.1012-1(h)(2)(ii)(B). See V.D., above, for further discussion on digital asset transaction costs.

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ers may specifically identify which units are to be sold.[816] The regulations provide that if the taxpayer does not identify specific units, the units are disposed of or transferred in order of time from the earliest purchase date of the units (for unhosted wallets) or date transferred into the taxpayer's account with the broker (for assets custodied with broker).[817]

G. Crypto-Asset Reporting Framework

The decentralized nature of digital-asset transfers has raised global concerns for tax transparency and compliance. As discussed in VIII.A., above, the OECD introduced the "Crypto-Asset Reporting Framework" (CARF), which was released as draft Rules and Commentary in a public consultation document, published on March 22, 2022.[818] After soliciting feedback from industry members,[819] the OECD published the final framework on October 10, 2022,[820] with further revisions published on June 8, 2023.[821] CARF is conceptualized as three building blocks: (1) Rules and Commentary issued by the OECD; (2) a Multilateral Competent Authority Agreement (MCAA) on Automatic Exchange of Information (AEOI); and (3) an electronic XML schema to be used by participating countries (technical solutions to support the information exchange).[822] The revisions published in 2023 include the rules and commentary and the model MCAA. The XML schema are expected to be published in the future.[823]

While the United States affirmatively supports adopting CARF,[824] there remains certain challenges as to the procedures going forward. When the OECD proposed the Common Reporting Standard (CRS), the United States declined to participate, relying instead on the Foreign Account Tax Compliance Act (FATCA) reporting regime that it had established prior to publication of the CRS. However, in the case of digital assets, the United States does not have an equivalent global reporting plan to that of CARF, and Treasury has signaled possible participation in the fiscal year 2023 General Explanations of the Administration's Fiscal Year (Greenbook) 2023 Revenue Proposals, as well as the 2024 and 2025 Greenbooks. The Greenbooks include a proposal for U.S. financial institutions to report on non-U.S. account holder digital asset transactions and, in the case of passive entities, their substantial foreign owners.[825] This reporting expansion would allow the IRS to reciprocally exchange information on digital asset activity with other jurisdictions, facilitating possible participation by the United States in CARF. The OECD notes in its introduction to CARF that "work will be undertaken to ensure a broad implementation of the CARF as the single global reporting framework for Relevant Crypto-Assets."[826] Similarly, Treasury has indicated its intention "to work towards swiftly transposing the CARF into domestic law and activating exchange agreements in time for exchanges to commence by 2027, subject to national legislative procedures as applicable."[827]

In the 2024 Final Regulations, the government clearly signaled its intention to join CARF relatively soon, stating that "[t]he Treasury Department and the IRS intend to propose regulations that would, if finalized, implement CARF in sufficient time for the United States to begin exchanges of information with appropriate partner jurisdictions in 2028 with respect to transactions effected in the 2027 calendar year."[828] As part of this initiative, the 2024 regulations were drafted in an attempt to align definitions with the CARF to the extent possible.[829] And where the 2023 proposed regulations had included reporting rules for CFC and non-U.S. digital asset brokers, these were removed in the 2024 Final Regulations to avoid unnecessary overlap with the imminent CARF adoption.[830]

Generally, the OECD's CARF rules address: (1) the scope of covered crypto-assets; (2) the scope of covered intermediaries and other service providers; (3) reportable transactions and information required to be reported; and (4) due diligence procedures to identify reportable users.[831]

1. Scope of Crypto-Assets

The term "Crypto-Asset" is defined under CARF as "a digital representation of value that relies on a cryptographically secured distributed ledger or a similar technology to validate and secure transactions."[832] Similar to §6045, it is a broad definition that covers a range of digital assets, including those that can be held and transferred without intermediary involvement.[833] The OECD has attempted to align its proposals with the Financial Action Task Force (FATF) Recommendations on virtual assets and virtual asset service providers,[834] leveraging institution's efforts under anti-money laundering (AML) and "know your customer" (KYC) requirements where possible.[835]

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[816] Reg. §1.1012-1(j). See V.B. for further discussion on identifying units sold and tracking basis.

[817] Reg. §1.1012-1(j).

[818] *Public consultation document — Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard,* OECD (Mar. 22 2022).

[819] *See* public comments on CARF, OECD (May 10, 2022) [hereinafter "CARF public comments"].

[820] *Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*, OECD (Oct. 10, 2022).

[821] *International Standards for Automatic Exchange of Information in Tax Matters: Crypto-Asset Reporting Framework and 2023 update to the Common Reporting Standard*, OECD (Jun. 8, 2023) [hereinafter "CARF"].

[822] CARF at 6&7.

[823] CARF at 7.

[824] *See Collective Engagement to Implement the Crypto-Asset Reporting Framework,* U.S. Department of the Treasury — Statements and Remarks (Nov. 10, 2023).

[825] *See* 2023 Greenbook at 97–99. *See also* 2024 Greenbook, 2025 Greenbook.

[826] *Crypto-Asset Reporting Framework and Amendments to the Common Reporting Standard*, OECD (Oct. 10, 2022) at 10.

[827] *See Collective Engagement to Implement the Crypto-Asset Reporting Framework,* U.S. Department of the Treasury — Statements and Remarks (Nov. 10, 2023).

[828] Preamble to T.D. 10000, 89 Fed. Reg. at 56,517.

[829] Preamble to T.D. 10000, 89 Fed. Reg. at 56,485.

[830] Preamble to T.D. 10000, 89 Fed. Reg. at 56,485. The U.S.'s adoption of CARF would require U.S. digital asset brokers to report information on their foreign customers (who are resident in a participating jurisdiction) so that the IRS could provide that information to those jurisdictions pursuant to AEOI mechanisms. In turn, reporting under U.S. rules by non-US digital asset brokers and CFC digital asset brokers would be unnecessary as they would be reporting on U.S. persons to their jurisdiction who would in turn provide that information to the IRS.

[831] CARF at 10-12.

[832] CARF at 18.

[833] CARF at 10.

[834] *International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation*, FATF (Nov. 15, 2023) [hereinafter "FATF"].

[835] CARF at 13.

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CARF limits its reporting scope to only "Relevant Crypto-Assets." Relevant Crypto-Assets include digital assets such as "Crypto-Derivatives" — smart contracts referencing underlying digital assets — stablecoins, and NFTs.[836] The definition excludes other uses of blockchain technology such as an inventory management system maintained on a cryptographically secured distributed ledger.[837] The scope is further limited by exclusion of Central Bank Digital Currency (CBDCs) — any digital fiat currency issued by a Central Bank; Specified Electronic Money Products — a digital representation of a fiat currency subject to regulatory requirements for redemption; and Crypto-Assets that cannot be used for payment and investment purposes.[838]

2. Scope of Intermediaries and Service Providers

CARF places compliance obligations on "Reporting Crypto-Asset Service Providers" (CASPs), defined as "any individual or Entity that, as a business, provides a service effectuating Exchange Transactions for or on behalf of customers, including by acting as a counterparty, or as an intermediary, to such Exchange Transactions, or by making available a trading platform."[839] Unlike the §6045 broker definition, there is no requirement for "regularly" providing services,[840] although the phrase "as a business" is intended to exclude those transacting infrequently for non-commercial reasons.[841] CARF also does not limit reporting to those who perform services for consideration,[842] requiring only that the service is performed as a business, whether as a principal, intermediary, or by establishing a trading platform.[843] The service provider definition is meant to align with the FATF "virtual asset service provider" definition for AML/KYC alignment.[844]

A virtual asset service provider under the FATF definition is any natural or legal person who, as a business, either conducts one or more of the following activities or operations for or on behalf of another natural or legal person:

- Exchange between virtual assets and fiat currencies;
- Exchange between one or more forms of virtual assets;
- Transfer of virtual assets;
- Safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets; and
- Participation in and provision of financial services related to an issuer's offer and/or sale of a virtual asset.[845]

The following examples of CASPs are included in Commentary to the Rules:

- Dealers transacting for their own account in digital assets with customers;
- Crypto ATM operators;
- Exchanges that act as digital asset "market makers" compensated through a bid-ask spread;
- Digital asset exchanges and brokers; and
- Intermediaries buying issued digital assets to resell and distribute such assets to customers.[846]

DeFi platforms are also included: "any software program or application that allows users to effectuate (either partially or in their entirety) Exchange Transactions."[847] CARF obligations will only apply to those persons that have sufficient influence or control over the platform, such as programming control over exchange transactions, or have sufficient knowledge to comply with the due diligence and reporting obligations, including where the person is subject to AML/KYC rules and regulations.[848]

Excluded from the definition of CASPs are the following:

- Investment funds holding digital assets since investors cannot trade on their own behalf;
- Persons solely engaged in validating distributed ledger transactions;
- Digital asset creators or issuers acting in that capacity;
- Platform providers who solely allow users to make posts for trades of digital assets; and
- Software creators or sellers as long as they are not also using the software to transact on behalf of customers.[849]

Nexus rules are included to limit reporting obligations to service providers with sufficient nexus to a jurisdiction that has adopted CARF ("participating jurisdiction"). The rules include a hierarchy for determining in which jurisdiction a service provider should report where they have nexus to multiple participating jurisdictions.[850]

3. Reportable Transactions and Information

Persons that qualify as CASPs are tasked with reporting Relevant Transactions of Relevant Crypto-Assets.[851] Where §6045 broker reporting focuses on sales or transfers, CARF reports at a transactional level, capturing acquisitions as well as disposals in its reporting. Relevant Transactions are: (1) Exchange Transactions; (2) Reportable Retail Payment Transaction; and (3) other Transfers:

- The term "Exchange Transaction" means any exchange between Relevant Crypto-Assets and Fiat Currencies and between one or more forms of Relevant Crypto-Assets.[852]

[836] CARF at 44-46.
[837] CARF at 46.
[838] CARF at 18-19 & 46–48. This last exclusion is based on a determination by the CASP. The Commentary states that Crypto-Assets that are subject to existing Financial Regulations are included, as are NFTs that can be used for payment or investment purposes. An example of a specifically excluded Crypto-Asset that cannot be used for payment and investment purposes are assets that can only be exchanged or redeemed within a limited fixed network (a closed-loop asset).
[839] CARF at 22.
[840] §6045(c)(1)(D).
[841] CARF at 53.
[842] §6045(c)(1)(D).
[843] CARF at 53.
[844] *See* FATF at 137-138.
[845] *See* FATF at 137-138.
[846] CARF at 53-54.
[847] CARF at 54.
[848] CARF at 51.
[849] CARF at 54.
[850] CARF at 13-14.
[851] CARF at 14.
[852] CARF at 19.

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• The term "Reportable Retail Payment Transaction" means a Transfer of Relevant Crypto-Assets in consideration of goods or services for a value exceeding $50,000.[853]

• The term "Transfer" means a transaction that moves a Relevant Crypto-Asset from or to the Crypto-Asset address or account of one Crypto-Asset User, other than one maintained by the CASP on behalf of the same Crypto-Asset User, where, based on the knowledge available to the CASP at the time of transaction, the CASP cannot determine the transaction is an Exchange Transaction.[854]

Exchange Transactions include exchanges of digital assets for fiat and other digital assets.[855] By reporting at a transaction level, the relevant tax information including the cost basis is captured and reported to the tax authority in all instances where the information is available to the service provider.[856]

Reportable Retail Payment Transactions occur when a service provider is transferring digital assets between a customer and a merchant. The reporting requirement is imposed on the service provider, not the merchant — a contrast to the §6050I requirements imposed on the merchant accepting payments of digital assets. Under CARF, the service provider is responsible to report both the customer and the merchant as Reportable Users.[857] This reporting category will be limited to transactions exceeding the $50,000.[858] A retail payment transaction excluded from reporting because it is below the threshold should be reported as a Transfer to the merchant.[859]

All other digital asset transfers facilitated by a CASP on behalf of a customer fall into the Transfers category, examples of which include the following:

• Transfers where the service provider is not involved in part of the transaction, preventing it from reporting it as an Exchange Transaction because of the missing information.[860]

• Transfers between service providers.

• Receipt of an airdrop facilitated by a service provider.[861]

• Income from staking.[862]

• The disbursement, reimbursement, or associated return on a loan.[863]

If a service provider transfers a digital asset on behalf of a customer to an external wallet address, the service provider must report this as a Transfer if it does not know or have reason to know that the wallet address is associated with another service provider. While the final rules removed the initial proposal to report external wallet addresses, CASPs are required to collect and retain external wallet addresses for at least five years in their records.[864]

Reporting is limited to transactions performed on behalf of Reportable Jurisdiction Persons, which are tax residents in reportable jurisdictions that are not excluded persons under CARF.[865] Similar to other information reporting regimes, demographic and financial information is reported, including controlling person information for certain passive entities. Details on the digital asset are reported, and transactions are aggregated by digital asset and transfer type.[866] Each jurisdiction will determine the "appropriate reporting period" in their reporting rules, but it is generally expected that reporting will occur on an annual basis.[867]

4. Due Diligence Procedures

Building from the Common Reporting Standard (CRS) due diligence procedure foundation,[868] CARF requires service providers to obtain self-certification forms from customers reflecting tax residency, tax identification numbers, entity status (if applicable) and including controlling persons for some entity types.[869] Service providers (or participating jurisdictions) can draft self-certification forms using any format provided the requisite information is captured.[870] Information on self-certification forms needs to be cross-checked against information collected for AML/KYC or other purposes, imposing a "reason to know" standard.[871] The commentary clarifies that service providers "are not expected to carry out an independent legal analysis of relevant tax laws to confirm the reasonableness of a self-certification." Where information conflicts, a new self-certification or a reasonable explanation and documentary evidence supporting the reasonableness of the original self-certification would need to be provided.[872]

Service providers are permitted to rely on publicly available information — information published by an authorized government body or disclosed on an established securities market — to determine that an entity customer is an Excluded Person — publicly traded entity or affiliate, a governmental entity, an international organization, a central bank, or a financial institution.[873] An Excluded Person is not reportable, thereby eliminating the need for a self-certification form.

For all entities that are not excluded, a self-certification is needed to determine whether the entity is an Active Entity — less than 50% of the entity's gross income is passive income and less than 50% of the assets produce passive income.[874] Among the passive income categories is income derived from Relevant Crypto-Assets. If an entity is passive, controlling per-

[853] CARF at 19.
[854] CARF at 19.
[855] CARF at 19.
[856] CARF at 29.
[857] CARF at 30.
[858] CARF at 50.
[859] CARF at 30, Example 2.
[860] This could occur when the service provider is either sending or receiving the relevant crypto-asset but does not have actual knowledge of the acquisition or disposal in exchange, including lack of knowledge of the consideration paid or received. CARF at 29.
[861] CARF at 30.
[862] CARF at 30.
[863] CARF at 30.
[864] CARF at 31.
[865] CARF at 53.
[866] CARF at 15.
[867] CARF at 31.
[868] CARF at 13.
[869] CARF at 17-18.
[870] CARF at 41-42.
[871] CARF at 39. *See* Automatic Exchange Portal, OECD.
[872] CARF at 40.
[873] CARF at 38.
[874] See CARF at 54-55 for additional details on active entity qualifications, including exceptions for dealers, insurance entities, nonfinancial holding companies, and non-profit entities.

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son information must be obtained. Controlling persons may be identified using AML/KYC procedures consistent with FATF recommendations, but in order to make reportability determinations, controlling persons need to provide self-certification forms.[875]

5. Next Steps for CARF

Despite the similarities with CRS and U.S. broker reporting rules, there are numerous deviations, including instances where CARF is stricter than the rules currently imposed on financial institutions under CRS. The current CARF is designed to be implemented by jurisdictions into local law, with 48 jurisdictions (including the U.S.) publishing a joint statement of their intent to be exchanging information by 2027.[876] As noted above, however, the Treasury and IRS have indicated an intent to release regulations implementing CARF for 2028 reporting of transactions occurring in 2027.

a. CRS

In the same publication as CARF, the OECD released proposed amendments to the Common Reporting Standard (CRS), some of which impact the digital asset industry. The amendments include changes to the definition of financial asset and investment entity to ensure that derivatives that reference crypto-assets and are held in custodial accounts, and investment entities investing in crypto-assets are covered by the CRS. In this area, the amendments include new coordination provisions between CARF and CRS to limit instances of duplicative reporting.[877]

(1) Modernization of the CRS

The scope of CRS has been expanded to cover products functionally similar to a traditional bank account from the perspective of a customer, namely certain e-money products, as well as Central Bank Digital Currencies:

- Excluded accounts include low-risk specified e-money products whose rolling average 90-day end-of-day account balance or value does not exceed $10,000 in any consecutive 90-day period.[878]

- The term "Specified Electronic Money Product" does not include a product created for the sole purpose of facilitating the transfer of funds from a customer to another person pursuant to instructions of the customer.[879]

- Income attributable to related financial services now also includes commissions and fees from holding, transferring, and exchanging of relevant crypto-assets held in custody.[880]

- To ensure consistency between derivatives referencing crypto-assets and derivatives referencing other financial assets, derivative contracts referencing crypto-assets will now be included in the definition of financial assets in the CRS.[881]

Further, to align the treatment of indirect investments in crypto-assets with other types of investments in funds and wealth management vehicles, the definition of investment entity has been expanded to include the activity of investment in crypto-assets. However, this does not include the provision of services effectuating exchange transactions for or on behalf of customers.[882]

Additionally, income derived from Crypto-Assets, the excess of gains over losses from the sale or exchange of Crypto-Assets, and the excess of gains over losses from transactions (including futures, forwards, options, and similar transactions) in any Crypto-Asset, are included in what is generally considered to be passive income.[883]

To maintain the alignment between CARF and CRS and considering that there are certain assets that may qualify both as Relevant Crypto-Assets under CARF and as Financial Assets under CRS, CRS now contains an optional provision to switch off gross proceeds reporting under CRS if such information is reported under CARF.[884]

H. Form 8938

In 2010, the Hiring Incentives to Restore Employment Act (the HIRE Act) included a new subsection of Chapter 4 of the Code titled as the Foreign Account Tax Compliance Act (FATCA).[885] FATCA requires non-U.S. (foreign) financial institutions (FFIs) to report to the IRS certain financial accounts held by U.S. taxpayers at the FFIs. A complimentary provision under Part II of the HIRE Act required certain U.S. taxpayers holding financial assets outside the United States to report those assets to the IRS with their annual income tax returns.[886] This requirement is in addition to the requirement to report foreign financial accounts on FinCEN Form 114, *Report of Foreign Bank and Financial Accounts (FBAR)* (formerly TD F 90-22.1).

Section 6038D requires certain U.S. taxpayers who hold specified foreign financial assets with an aggregate value of more than the reporting threshold (at least $50,000) to report information about those assets on Form 8938, *Statement of Specified Foreign Financial Assets*.[887]

Specified foreign financial assets include foreign financial accounts held at FFIs and foreign assets not held in a financial account that are held for investment (as opposed to held for use in a trade or business), such as foreign stock and securities, foreign financial instruments, contracts with non-U.S. persons, and interests in foreign entities.[888] While the Treasury Department and the IRS have requested comments on the proper treat-

[875] CARF at 42.

[876] *OECD Secretary-General Mathias Cormann welcomes pledge by 48 countries to implement global tax transparency standard for crypto-assets by 2027*, OECD (Nov. 10, 2023).

[877] CARF at 13.

[878] CARF at 117-118.

[879] CARF at 94.

[880] CARF at 107.

[881] CARF at 86.

[882] CARF at 94.

[883] CARF at 118.

[884] CARF at 100.

[885] Pub. L. No. 111-147, Title V, §501(a).

[886] For further discussion, see 6565 T.M., *FATCA — Information Reporting and Withholding Under Chapter 4* (Foreign Income Series).

[887] Reg. §1.6038D-2(a)(1).

[888] §6038D(b).

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ment of virtual currency under §6038D, no guidance has been issued.[889]

1. Specified Foreign Financial Assets

The term "specified foreign financial asset" means any financial account maintained by a foreign financial institution.[890] In addition, the following assets that are not held in an account maintained by a financial institution are specified foreign financial assets:[891]

- Any stock or security issued by a person other than a United States person;
- Any financial instrument or contract held for investment which has an issuer or counterparty that is other than a U.S. person; and
- Any interest in a foreign entity.

The regulations promulgated under §6038D provide additional guidance.

a. Assets Not Held at a Financial Institution

The regulations include a nonexclusive list of assets held for investment, other than financial accounts, that may be considered specified foreign financial assets:

- Stock issued by a foreign corporation;
- A capital or profits interest in a foreign partnership;
- A note, bond, debenture, or other form of indebtedness issued by a foreign person;
- An interest in a foreign trust;
- An interest rate swap, currency swap, basis swap, interest rate cap, interest rate floor, commodity swap, equity swap, equity index swap, credit default swap, or similar agreement with a foreign counterparty; and
- Any option or other derivative instrument with respect to any of the items listed as examples in this paragraph or with respect to any currency or commodity that is entered into with a foreign counterparty or issuer.[892]

Commentary: The IRS's position has long held that a virtual asset is treated as "property" for U.S. federal income tax purposes.[893] Property is a type of an asset, as distinguished from currency. Cryptocurrencies which meet these broad definitions that are held directly by an individual would appear to be reportable on a Form 8938. Bitcoin and most similar cryptocurrencies, however, do not usually meet any of the definitions in §6038D(b)(2), or the regulations, of assets that are reportable assets "other than financial accounts," and that would be considered specified foreign financial assets. Moreover, while the examples provided in the regulations expand upon the statute, the examples are stock, equity, security, and derivative interests, and these are not inconsistent with the statutory definition.[894]

Cryptocurrencies that are classified as stock, notes, bonds, forms of indebtedness issued by a foreign person appear to be subject to reporting on Form 8938, even if held directly. In addition, a derivative interest in bitcoin or similar cryptocurrency would seem to be subject to reporting if it involves a foreign counterparty.[895]

The IRS posts answers to FAQs on its website for purposes of reporting certain assets on Form 8938. The guidance states that a safe deposit box at a foreign financial institution is, itself, not a financial account.[896] While not saying so directly, the guidance implies that the contents of the safe deposit box continue to be subject to reporting on Form 8938 (because there is an asset in the deposit box) if the contents meet any of the definitions in §6038D(b)(2).[897]

b. Accounts Held at Foreign Financial Institutions

Generally, an account at a foreign financial institution (FFI) located outside the United States that holds cryptocurrency on behalf of a U.S. person seems likely to be treated as a specified foreign financial asset. The beneficial owner of such assets normally does not directly control the private keys to the cryptocurrency, and such arrangements are sometimes referred to as "hosted wallets."[898] Notable, however, is that for an account to be maintained at an FFI, and thus as a specified foreign financial asset, the entity providing the hosted wallet or similar service must meet the definition of an FFI for FATCA purposes under Chapter 4. Cryptocurrencies, however, are not specifically identified as the type of assets, the holding of which on behalf of a customer, qualifies a business providing such services as an FFI under Chapter 4.[899] To the extent, however, that an entity providing the services qualifies as an FFI, financial accounts, held for U.S. persons by the FFI, would be in scope for §6038D reporting on Form 8938.

Commentary: Cryptocurrencies that are physically on an exchange platform provided by an offshore service provider (ergo organized and formed outside of the United States) would lead to a plausible conclusion that those assets are also subject to Form 8938 reporting, because the exchange (a foreign entity) enables a customer to hold assets (cryptocurrency) on its platform.

For purposes of §6038D, the term "financial account" is defined by Reg. §1.1471-5(b). Broadly, Reg. §1.1471-5(b) defines the term "financial account" to mean:

- A depository account maintained by a financial institution;
- A custodial account maintained by a financial institution;
- Certain equity or debt interests; and
- Certain insurance and annuity contracts.

[889] T.D. 9706, 79 Fed. Reg. 73,817 (Dec. 12, 2014).
[890] §6038D(b)(1) (defining both terms by reference to §1471(d)).
[891] §6038(b)(2).
[892] Reg. §1.6038D-3(d).
[893] Notice 2014-21.
[894] Reg. §1.6038D-3(d).
[895] Reg. §1.6038D-3(d)(6). Reg. §1.6038D-3(b)(2) provides that an asset is not a specified foreign financial asset if the rules of §475(a) apply to the asset or an election under §475(e) or §475(f) is made with respect to the asset.
[896] IRS, *Basic Questions and Answers on Form 8938.*
[897] *Cf.* IRM 4.26.16.2.2(3).c. (11-06-15) (a safety deposit box is generally not a financial account for purposes of FBAR filings).
[898] For a definition of "hosted wallets," see the Glossary of Terms in the Worksheets, below.
[899] IRM 4.26.16.2.2(3).c. (11-06-15).

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For purposes of §6038D and Form 8938, however, the exclusions for retirement and pension accounts and non-retirement savings accounts under Reg. §1.1471-5(b)(2)(i) and retirement and pension accounts, non-retirement savings accounts, and accounts satisfying similar conditions in an applicable Model 1 Intergovernmental Agreement (IGA) or Model 2 IGA do not apply.[900] In addition, the §6038D regulations provide that a specified foreign financial asset includes a financial account maintained by a financial institution that is organized under the laws of a U.S. possession (e.g., Puerto Rico).[901]

I. FBAR

1. FBAR Obligations Generally

A U.S. person that has a financial interest in or signature authority over foreign financial accounts must file an FBAR if the aggregate value of the foreign financial accounts exceeds $10,000 at any time during the calendar year.[902] Filers must file the FBAR electronically with FinCEN on or before October 15th of the year following the reporting period under an automatic extension from the statutory April 15th due date. For instance, an FBAR reporting signature authority during 2021 is due on April 15, 2022, but automatically extended until October 15, 2022.[903]

a. Definition of U.S. Person

A U.S. person means a citizen of the United States, a resident of the United States, and an entity such as a corporation created, organized, or formed under the laws of the United States or any State.[904]

b. Definition of Financial Account

A financial account includes the following:

- A bank account;
- A securities account;
- An account with a person that is in the business of accepting deposits as a financial agency;
- An account that is an insurance or annuity policy with a cash value;
- An account with a person that is in the business of accepting deposits as a financial agency;
- An account with a person that acts as a broker or dealer for futures or options transactions in any commodity on or subject to the rules of a commodity exchange or association; and
- An account with a mutual fund or similar pooled fund which issues shares available to the general public that have a regular net asset value determination and regular redemptions.[905]

The Internal Revenue Manual (IRM) lists the following that should not be considered reportable financial accounts for FBAR purposes:

- Stocks, bonds, or similar financial instruments held directly by the person;
- Real estate or an account holding solely real estate;
- A safety deposit box; however, a reportable account may exist where the financial institution providing the safety deposit box has access to the contents and can dispose of the contents upon instruction from, or prearrangement with, the person;
- Precious metals, precious stones, or jewels held directly by the person; however, the regulations define "foreign financial agency" as "a person acting outside the United States for a person … as a financial institution, bailee, depository trustee, or agent, or acting in a similar way related to money, credit, securities, gold, or a transaction in money, credit, securities, or gold." Therefore, a reportable account relationship may exist where a foreign agency holds precious metals on deposit or provides insurance or other services as an agent of the person owning the precious metals.[906]

A foreign financial account means a financial account located outside of the United States.[907] For example, an account maintained with a foreign branch of a US bank that is physically located outside of the United States is a foreign financial account for FBAR purposes. An account maintained with a branch of a foreign bank that is physically located in the United States is not a foreign financial account.

c. Definition of Financial Interest and Signature Authority

A U.S. person has a financial interest in a foreign financial account if the U.S. person is the owner of record or holder of legal title, regardless of whether the account is maintained for the benefit of the U.S. person or for the benefit of another person.[908] A U.S. person also has a financial interest if they have one of the "Other" financial interests identified in the FBAR regulations, including situations where a foreign account is owned through an agent, nominee, attorney or a similar arrangement, or where the U.S. person has requisite direct or indirect ownership, control, voting power, profits or capital interest in an entity the holds a foreign financial account.[909]

"Signature authority" for FBAR purposes means the authority of an individual (alone or in conjunction with another) to control the disposition of money, funds or other assets held in a financial account by direct communication (whether in writing or otherwise) to the person with whom the financial account is maintained.[910]

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[900] Reg. §1.6038D-1(a)(7) (§6038D coordination rule in Reg. §1.1471-5(b)(2)(i)(D)).

[901] Reg. §1.6038D-3(a)(2).

[902] *See* 31 C.F.R. §1010.350(a).

[903] *See* Pub. L. No. 114-41, §2006(b)(11); *New FBAR Due Date Announcement (FINAL 12-16-16)*, FinCEN.

[904] 31 C.F.R. §1010.350(b); §7701(b).

[905] 31 C.F.R. §1010.350(c).

[906] IRM 4.26.16.2.2 (11-06-15).

[907] *See* 31 C.F.R. §1010.350(d).

[908] 31 C.F.R. §1010.350(e)(1).

[909] 31 C.F.R. §1010.350(e)(2).

[910] 31 C.F.R. §1010.350(f)(1).

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Only individuals can have signature authority for FBAR purposes.[911] Non-natural persons (e.g., entities), therefore, cannot have signature authority.

2. Virtual Currency FBAR Reporting Obligations

While FinCEN retains its rulemaking authority over FBAR, FinCEN delegated civil FBAR enforcement authority to the IRS and FBAR focuses on account relationship.[912] As a result, the IRS's views on how virtual currency are stored and kept is crucial for analyzing the virtual currency's FBAR reporting obligation.

FinCEN published Notice 2020-2 clarifying the current rule of virtual currency's FBAR reporting obligations.[913] As the Notice explains, under current FBAR regulations, a foreign account holding solely virtual currency is a not a type of FBAR reportable account and, therefore, a foreign account holding solely virtual currency is not reportable on the FBAR. However, the Notice states that foreign accounts holding virtual currency are otherwise reportable for FBAR purposes if they contain non-virtual currency assets that are otherwise reportable under the FBAR regulations.

Commentary: In addition, the Notice states that FinCEN intends to propose to amend the current FBAR regulations to include virtual currency as a type of reportable account. If the proposal is implemented, not only will U.S. persons have to consider their cryptocurrency assets when deciding whether to file FBARs for accounts containing both cryptocurrency and noncryptocurrency assets, but they will have to determine whether their cryptocurrency accounts independently trigger FBAR filing requirements as well. As of now, there is not any movement on FinCEN's plan to propose amendments to the Bank Secrecy Act regulations.

For further discussion of the FBAR requirements, see 6085 T.M., *Report of Foreign Bank and Financial Accounts (FBAR)* (Foreign Income Series).

3. Virtual Currency Wallet Holding Only Virtual Currency

Virtual currency wallets containing only virtual currency are not FBAR reportable currently because FinCEN Notice 2020-2 clearly excludes foreign accounts containing only virtual currency as a type of FBAR reportable account.[914]

Commentary: In the FinCEN Notice 2020-2, FinCEN has also proposed to potentially amend the current FBAR regulations to include virtual currency as a type of reportable account.[915] If the proposal is implemented, the type of virtual currency wallet that holds the virtual currency is likely to be relevant to determining whether holding virtual currency triggers an FBAR reporting obligation. When the virtual currency wallet is self-custodied, for example, such arrangement may appear similar to a safety deposit box. In the Internal Revenue Manual (IRM), the IRS states a safety deposit box is not considered as a financial account for FBAR purposes unless it is maintained by a financial institution that has access to the contents of such safety deposit box and can dispose of the assets upon instruction or prearrangement with the customer.[916] The plain reading of this suggests the IRS is concerned with a safety deposit box that can appear and function like a financial account that is maintained and serviced by a financial institution, but not concerned with arrangements where the financial institution has no legal access or control over the items in the safety deposit box. Similarly, a self-custodied virtual currency wallet that does not allow a financial institution or similar service provider to access or dispose of the assets in the wallet, like a safety deposit box with similar restrictions, would not be brought into scope for FBAR reporting simply because virtual currency is deemed reportable under a forthcoming FBAR regulation amendment: the relationship between the customer holding the assets and the financial institution (if any) and the services offered must be examined to determine FBAR reportability under the existing FBAR regulatory framework.

4. Commentary on Virtual Currency Wallet Holding Both Virtual Currency and Other FBAR Reportable Assets

If virtual currency wallets contain both virtual currency and other FBAR reportable assets, they are likely to be FBAR reportable. As FinCEN Notice 2020-2 states, foreign accounts holding virtual currency are otherwise reportable for FBAR purposes if they contain non-virtual currency assets that exceed the FBAR reporting threshold.

Self-custodied virtual currency wallets containing both virtual currency and other reportable FBAR assets, such as cash or stocks, are reasonably similar to a safety deposit box. For example, the hard drive of a computer containing two types of assets: (i) private keys and public keys for $10,000 worth of a cryptocurrency; and (ii) electronic copies of a stock certificate — is likely to be considered a safety deposit box, assuming those supplying the self-custody tools the user deploys to maintain the security of the assets do not have the authority and ability to access or dispose of the contents of the virtual currency wallet upon prearrangement or instruction from the user.

In comparison, virtual currency wallets maintained by financial or service providers are more likely to be currently FBAR reportable if the wallets contain both virtual currency and other FBAR reportable assets. A hypothetical wallet that could attract reporting obligations would be one where a financial institution provides users a wallet to: (i) hold and trade stocks and exchange-traded funds; (ii) deposit savings and earn interest; and (iii) hold and trade cryptocurrencies. FinCEN Notice 2020-2 would likely view the arrangement as one where the user holds virtual currencies and other FBAR reportable assets, triggering a reporting obligation as long as the account meets all other FBAR reporting criteria.

While FinCEN attempts to give guidance regarding FBAR obligation for virtual currency through FinCEN Notice 2020-2, there are still areas needing clarifications. Self-custodied wallets, whether holding only virtual currency or otherwise reportable FBAR assets at the same time, pose the lowest FBAR reporting risk, as a reasonable analogy can be drawn between self-custodied virtual currency wallets and safety deposit box-

[911] *See* 31 C.F.R. §1010.350(f)(1).
[912] 31 C.F.R. §1010.810(g).
[913] FinCEN Notice 2020-2.
[914] FinCEN Notice 2020-2.
[915] FinCEN Notice 2020-2.
[916] IRM 4.26.16.2.2(3) (11-06-15).

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es, which are not financial accounts. Virtual currency wallets that are maintained by financial institutions or other service providers who have access to the assets in the case of those holding both virtual currency and other FBAR reportable assets, are likely reportable under current FBAR rules.

J. John Doe Summons

The government has conducted information gathering to uncover tax avoidance arising from transactions in crypto-assets. Section 7609(f) allows the IRS to compel third parties to provide information about an individual or groups of individuals if there is a reasonable basis for believing that they may have violated the tax law.[917] The IRS can only use these "John Doe summonses" if the information sought is not available from other sources.[918] The summons must be narrowly tailored to only yield the information necessary to determine if there has been a violation of tax law.[919]

The IRS has used §7609(f) to find potentially noncompliant taxpayers by gathering information from exchanges about the people transacting, and the quantity of transactions made. The IRS also issues these summonses to banks to determine cash flows from such transactions.[920] Several crypto exchanges have been targeted by John Doe summonses, seeking information on individuals who have engaged in large crypto-asset transactions in a single year.[921]

In *Harper v. Rettig*,[922] the taxpayer was identified by information obtained through enforcement of a John Doe summons on a virtual currency exchange. The taxpayer claimed that the information gathering of his accounts and transactions was unconstitutional.[923] The district court initially dismissed the case for lack of subject matter jurisdiction based primarily on the Anti-Injunction Act (which prevents lawsuits that would restrain the assessment or collection of tax).[924] The First Circuit reversed the lower court's decision finding that information gathering was not an assessment or collection activity and therefore not covered under the Anti-Injunction Act.[925] On remand, the district court dismissed the case for failure to state a claim on which relief could be granted. Among other issues analyzed, the court determined that the taxpayer's claims that the IRS violated the Fourth and Fifth Amendments in obtaining the exchange's records failed because the taxpayer did not have a protectable privacy, property, or liberty interest in the records. In reaching its decision, the court analogized such records to a customer's account records with a bank.[926]

The practical question is therefore whether the IRS will be restrained in any way in its use of a John Doe summons to find non-compliant taxpayers using third-party information.

For further discussion of a John Doe summons, see 633 T.M., *Compelled Production of Documents and Testimony in Tax Examinations.*

K. Voluntary Disclosure for Digital Asset Transactions

A longstanding practice of the IRS's Criminal Investigation (CI) Division is to allow taxpayers to make timely, accurate, and complete voluntary disclosures that can be taken into account when determining whether to recommend criminal prosecution. A voluntary disclosure will not automatically guarantee immunity from prosecution; however, a voluntary disclosure may result in prosecution not being recommended. A voluntary disclosure occurs when the taxpayer provides a truthful, timely, and complete disclosure to the CI Division through designated procedures. A disclosure is timely if it is received before the government has: (i) begun a civil examination or criminal investigation; (ii) received information from a third party (e.g., informant, other governmental agency, John Doe summons, etc.) alerting it to the noncompliance; or (iii) acquired information directly related to the taxpayer's specific noncompliance from a criminal enforcement action (e.g., search warrant, grand jury subpoena, etc.). The voluntary disclosure practice extends to failures to report virtual currency transactions.

There is a two-part process to request to participate in the Voluntary Disclosure Practice. Taxpayers first must complete Part I of Form 14457, *Voluntary Disclosure Practice Preclearance Request and Application* to request preclearance. Preclearance determines eligibility for the practice but does not guarantee preliminary acceptance into the practice. Once preclearance confirmation is received, Part II of Form 14457 should be submitted within 45 days. An extension is available, but no more than one 45-day extension will be granted.[927]

For further discussion of voluntary disclosure, see 636 T.M., *Tax Crimes.*

L. FinCEN Proposed Regulations for Reporting Convertible Virtual Currency Mixing Transactions

1. In General

FinCEN proposed special rules[928] that would require domestic financial institutions and domestic financial agencies to maintain certain records and report specific information relating to transactions involving convertible virtual currency

[917] §7609(f).

[918] §7609(f).

[919] §7609(f).

[920] *See, e.g.*, *In the Matter of Tax Liabilities: John Doe*, No. 1:22-mc-00213 (S.D.N.Y. Sept. 22, 2022).

[921] *See, e.g.*, *In re Tax Liab. of Does*, No. 21-cv-02201-JCS, 2021 BL 182111 (N.D. Cal. May 5, 2021); *In re Tax Liabs. of Doe*, No. 3:16-cv-06658-JSC, 2016 BL 446580 (N.D. Cal. Nov. 30, 2016).

[922] 46 F.4th 1 (1st Cir. 2022).

[923] 46 F.4th 1 (1st Cir. 2022).

[924] *Harper v. Rettig*, 46 F.4th 1, 5. *See* §7421.

[925] *Harper v. Rettig*, 46 F.4th 1, 7, 8.

[926] *Harper v. Rettig*, No. 1:20-cv-00771-JL, 2023 BL 181068 (D.N.H. May 26, 2023). The summons required the exchange to give the following information to the IRS: name, date of birth, taxpayer ID number, address, records of account activity, and account statements or invoices. *Id.*

[927] More information on the IRS's Voluntary Disclosure practice is available on the IRS's website. *See IRS Criminal Investigation Voluntary Disclosure Practice.* In IR-2022-33 (Feb. 15, 2022), the IRS announced that Form 14457 was revised to include an expanded section on reporting virtual currency.

[928] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662). FinCEN did not propose an effective date. FinCEN requested comments on all aspects of the proposed rules. *See* Preamble to 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023).

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(CVC)[929] mixing. In general, "CVC mixing"[930] refers to a process that conceals the identity of the parties, sources, or amounts involved in CVC transactions. Because mixing is intended to make CVC transactions untraceable and anonymous, criminals frequently use the technique to launder CVC derived from a variety of illicit activities. FinCEN determined that CVC mixing transactions is a primary money laundering concern and has proposed additional recordkeeping and reporting requirements meant to increase transparency, thereby making these transactions less attractive to illicit actors.[931]

These additional rules would apply only to "covered financial institutions," which generally includes:[932]

- a bank (except bank credit card systems);
- a broker or dealer in securities;
- a money services business as defined in 31 C.F.R. §1010.100(ff), including a virtual asset service provider (VASP) and other persons that provide money transmission services, which "… means the acceptance of … value that substitutes for currency from one person and the transmission of … value that substitutes for currency to another location or person by any means…"[933]
- a telegraph company;
- a casino;
- a card club;
- a person subject to supervision by any state or federal bank supervisory authority;
- a futures commission merchant;
- an introducing broker in commodities; or
- a mutual fund.

Under proposed rules, covered financial institutions would be required to report and maintain records relating to "covered transactions."[934] A covered transaction means a transaction[935] "in CVC" by, through, or to the covered financial institution that such institution knows, suspects, or has reason to suspect involves CVC mixing within or involving a jurisdiction outside the United States.[936]

Commentary: The limitation to transactions "in CVC" means that reporting obligations apply to covered financial institutions that directly engage with CVC transactions, such as a CVC exchange. Further, covered transactions would not include transactions that are only indirectly related to CVC, such as when a CVC exchanger sends the non-CVC proceeds of a sale of CVC that was previously processed through a "CVC mixer" from the CVC exchanger's bank account to the bank account of the customer selling CVC.[937]

A "CVC mixer" would mean any person, group, service, code, tool, or function that facilitates CVC mixing.[938] For example, a criminal takes illicit proceeds of their crime, sends the CVC to a CVC mixer, and then on to an account they hold at a VASP. Then the VASP would take custody of the illicitly sourced CVC, thereby allowing illicit funds to enter their omnibus account, all while being unaware of the origin of the illicit CVC.[939]

Proposed rules describe CVC mixing as the facilitation of CVC transactions in a manner that obfuscates the source, destination, or amount involved in one or more transactions, regardless of the type of protocol or service used.[940] The following are examples of CVC mixing.[941]

- **Pooling or aggregating CVC from multiple persons, wallets, addresses, or accounts:** This method involves combining CVC from two or more persons into a single wallet or smart contract and, by pooling or aggregating that CVC, obfuscating the identity of both parties to the transaction

[929] The term "CVC" would mean a medium of exchange that either has an equivalent value as currency, or acts as a substitute for currency, but lacks legal tender status. However, FinCEN would consider Bitcoin a CVC despite its legal tender status in at least two jurisdictions. *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(1)). For further discussion of CVC, see IV.A.3., above.

[930] *See Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(3)). CVC mixing is further discussed below.

[931] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[932] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(4)) (referencing 31 C.F.R. §1010.100(t)).

[933] 31 C.F.R. §1010.100(ff)(5)(A).

[934] *See Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(5)) referencing (31 C.F.R. §1010.100(bbb)(1)).

[935] 31 C.F.R. §1010.100(ff)(5)(A).

[936] A covered transaction includes the following: a purchase, sale, loan, pledge, gift, transfer, delivery, or other disposition, and with respect to a financial institution includes a deposit, withdrawal, transfer between accounts, exchange of currency, loan, extension of credit, purchase or sale of any stock, bond, certificate of deposit, or other monetary instrument, security, contract of sale of a commodity for future delivery, option on any contract of sale of a commodity for future delivery, option on a commodity, purchase or redemption of any money order, payment or order for any money remittance or transfer, purchase or redemption of casino chips or tokens, or other gaming instruments or any other payment, transfer, or delivery by, through, or to a financial institution, by whatever means effected. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[937] *See Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[938] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(2)).

[939] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[940] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(3)(i)).

[941] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(3)(i)).

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by decreasing the probability of determining both intended persons for each unique transaction.[942]

• **Using programmatic or algorithmic code to coordinate, manage, or manipulate the structure of a transaction:** This method involves the use of software that coordinates two or more persons' transactions together in order to obfuscate the individual unique transactions by providing multiple potential outputs from a coordinated input, decreasing the probability of determining both intended persons for each unique transaction.[943]

• **Splitting CVC for transmittal and transmitting the CVC through a series of independent transactions:** This method involves splitting a single transaction from sender to receiver into multiple, smaller transactions, in a manner similar to structuring, to make transactions blend in with other, unrelated transactions on the blockchain occurring at the same time so as to not stand out, thereby decreasing the probability of determining both intended persons for each unique transaction.[944]

• **Creating and using single-use wallets, addresses, or accounts, and sending CVC through such wallets, addresses, or accounts through a series of independent transactions:** This method involves the use of single-use wallets, addresses, or accounts — colloquially known as a "peel chain" — in a series of unnatural transactions that have the purpose or effect of obfuscating the source and destination of funds by volumetrically increasing the number of involved transactions, thereby decreasing the probability of determining both intended persons for each unique transaction.[945]

• **Exchanging between types of CVC or other digital assets:** This method involves exchanges between two or more types of CVC or other digital assets — colloquially referred to as "chain hopping" — to facilitate transaction obfuscation by converting one CVC into a different CVC at least once before moving the funds to another service or platform thereby decreasing the probability of determining both intended persons for each unique transaction.[946]

• **Facilitating user-initiated delays in transactional activity:** This method involves the use of software, programs, or other technology that programmatically carry out predetermined timed-delay of transactions by delaying the output of a transaction in order to make that transaction appear to be unrelated to transactional input, thereby decreasing the probability of determining both intended persons for each unique transaction.[947]

CVC mixing would not include the use of internal protocols or processes to execute transactions by banks, broker-dealers, or money services businesses, including virtual asset service providers that would otherwise constitute CVC mixing provided that those institutions preserve records of the source and destination of CVC transactions when using such internal protocols and processes and provide such records to regulators and law enforcement, where required by law.[948] If a covered financial institution is unclear whether such processes are for a business purpose, the institution should collect the recordkeeping and reporting information.[949]

2. Proposed Reporting and Recordkeeping Rules

As mentioned above, FinCEN proposed special rules that would require covered financial institutions to report and maintain records involving covered transactions.[950] First, the proposed rules would require that a covered financial institution report the following information in its possession, regarding each covered transaction, within 30 days of "initial detection" of a covered transaction:[951]

(A) the amount of any CVC transferred, in both CVC and its U.S. dollar equivalent when the transaction was initiated;

(B) the CVC type;[952]

[942] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[943] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[944] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[945] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[946] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[947] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[948] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(a)(3)(ii)).

[949] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[950] The proposed reporting and recordkeeping requirements would guide a covered financial institution to presume transactions that involve CVC mixing are inherently of primary money laundering concern. Thus, the implied burden would shift from determining when a CVC transaction is reportable to determining when it is not reportable. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[951] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(b)(1)(i)). FinCEN is not, at this time, proposing that covered financial institutions would be required to perform a lookback to identify covered transactions that occurred prior to issuance of a final rule. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[952] The type of CVC used would allow for trend analysis of preferred usage of different types of CVC and ensure the correct blockchain analysis can be done given each CVC exists on different blockchains. Taken together with the amount of any CVC transferred, this information would inform trend analysis

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(C) the CVC mixer used, if known;

(D) CVC wallet address associated with the mixer;

(E) CVC wallet address associated with the customer;

(F) transaction hash;[953]

(G) date of transaction;

(H) the IP addresses and time stamps associated with the covered transaction; and

(I) narrative.

With respect to the "initial detection" of a covered transaction, FinCEN recognizes that financial institutions already have tools, other than the use of third party blockchain analytics companies, to detect CVC mixing transactions while complying with existing BSA reporting obligations.[954] CVC mixing transactions can be detected by using free software programs[955] or paid commercial software programs.[956]

Second, the proposed rules would require a covered financial institution to report the following information in its possession regarding the customer associated with each covered transaction:[957]

(A) customer's full name;

(B) customer's date of birth;

(C) customer's address;

(D) email address associated with any and all accounts from which or to which the CVC was transferred;

(E) phone number associated with any and all accounts from which or to which the CVC was transferred; and

(F) IRS or foreign tax identification number, or if none are available, a non-expired U.S. or foreign passport number or other government issued photo identification number, such as a driver's license.[958]

Third, a covered financial institution would be obliged to report the required information with FinCEN 30 days from the date of detection in the manner specified by FinCEN.[959] The proposed reportable information is similar to the information financial institutions must already provide to comply with their anti-money laundering obligations under the Bank Secrecy Act,[960] however, covered businesses currently would not need to report that information. Notably, the proposed regulation would only require a covered financial institution to report information in its possession, and therefore, would not require a covered institution to reach out to the transactional counterparty to collect additional information on the CVC mixing transaction.[961]

Last, a covered financial institution would be required to document its compliance with the proposed requirements.[962] Further, the proposed rules would provide that five years after filing its report,[963] each covered financial institution would engage in new recordkeeping activities because it would need to document its compliance with the filing procedures and the reporting requirements by: (1) maintaining a copy of any records related to CVC mixing transactions they have filed; and (2) obtaining and recording copies of documentation relating to compliance with the regulation.[964]

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and expand understanding of laundering typologies. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[953] The proposed rule would require reporting of the transaction hash, which will allow an investigation of the specific transaction and assist in the identification of specific wallet addresses involved in the transaction(s), as well as more specific transactional meta data such as the date and time the transaction was completed. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[954] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[955] A free software program (e.g., common block explorers) can easily identify direct exposure to a CVC mixer if the CVC mixer infrastructure is relatively stable and well known (e.g., several Ethereum-based CVC mixers). *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[956] Paid commercial programs use heuristics to more comprehensive methods to identify CVC mixers, and market themselves on their ability to automatically detect bidirectional indirect and direct exposure to CVC mixing activity for any blockchain address supported by the service. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[957] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(b)(1)(ii)).

[958] If the customer has neither a TIN nor a foreign equivalent, the proposed rule would require reporting of a nonexpired United States or foreign passport number or other government-issued photo identification number, such as a driver's license. For entities, the proposed rule would require reporting of the entity's IRS TIN or, if the entity does not have one, a foreign equivalent or a foreign registration number. TINs and other unique identifying numbers provide law enforcement with the most efficient means to identify individuals potentially involved in illicit activity. *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[959] Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(b)(2)).

[960] Pub. L. No. 91-508 (1970).

[961] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

[962] *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662(b)(3)).

[963] *See* 31 C.F.R. §1010.430.

[964] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

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Note that all financial institutions must file a suspicious activity report (SAR)[965] if warranted and conduct appropriate risk-based customer due diligence. Thus, covered financial institutions may have to file a SAR and report as required by the proposed rules. Additionally, FinCEN can impose civil penalties on covered financial institutions that fail to conduct such due diligence.[966]

[965] *See, e.g.*, *Reporting Suspicious Activity: A Quick Reference Guide for Money Services Businesses*,, FinCEN, September 2007.

[966] *See* Preamble to *Proposal of Special Measure Regarding Convertible Virtual Currency Mixing, as a Class of Transactions of Primary Money Laundering Concern*, FinCEN, 88 Fed. Reg. 72,723 (proposed Oct. 23, 2023) (to be codified at 31 C.F.R. §1010.662).

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IX. International Tax

A. *Effectively Connected Income (ECI)*

1. *In General*

Generally, a foreign person that engages in a trade or business within the United States is taxable on a net basis on their taxable income that is effectively connected with the conduct of that trade or business (ECI).[967] For this purpose, a foreign person is considered to include an entity that is not a U.S. person — a foreign corporation, foreign partnership, or foreign trust or estate — and an individual is a foreign person if the individual is a nonresident alien — an individual who is neither a citizen nor resident of the United States. In addition, a foreign person is considered to be engaged in a trade or business within the United States if the foreign person is a member of a partnership or a trust that is engaged in a trade or business within the United States.[968] If a partnership is treated as engaged in a U.S. trade or business, income and gain effectively connected with the conduct of that trade or business that is allocated to a partner who is a foreign person would subject that partner to federal income tax on its distributive share of net[969] (or, if no timely return is filed, gross[970]) ECI. Foreign nonresident individuals, corporations, and certain trusts and estates are subject to the same income tax rates that generally apply to a U.S. resident taxpayer.[971]

Commentary: Because the existing rules governing income that is subject to tax by the United States do not contemplate blockchain, each digital asset activity must be considered in light of existing authorities. Some of the considerations that must be applied to blockchain business models include: (i) whether or not they have a U.S office or other fixed place of business in the United States (whether directly, or through a U.S. agent); (ii) whether there are sales of digital assets attributable to that U.S. fixed place of business; (iii) the appropriate characterization of a digital asset and whether it is used or held for use in connection with a U.S. trade or business; (iv) whether a digital asset is held solely for either investing or proprietary trading by a nondealer and whether the digital asset is a qualified commodity; (v) whether a digital asset is inventory that is sold at U.S. source; (vi) whether protection under bilateral income tax treaties is available; and (vii) whether reporting rules apply to digital assets.[972]

For further discussion of effectively connected income, see 6400 T.M., *U.S. Income Taxation of Nonresident Alien Individuals* (Foreign Income Series), and 6460 T.M., *U.S. Income Taxation of Foreign Corporations* (Foreign Income Series).

Commentary: In addition to the general rules applicable to ECI, the potential impact that cryptocurrency lending may have on the treatment of foreign lenders requires careful consideration, including whether such activities give rise to a trade or business within the United States that also implicates whether protection under tax treaties would be available.

2. *Trading Safe Harbors Under §864(b)(2) — In General*

Trading by a taxpayer for its own account can rise to the level of a trade or business if sufficiently extensive. However, with respect to foreign taxpayers, §864(b)(2) provides, generally, that the term "trade or business within the United States" does not include trading in stocks, securities, or commodities through a resident broker, commission agent, custodian, or other independent agent.[973] The trading safe harbors for stocks, securities, and commodities for the taxpayer's own account under §864(b)(2)(A)(ii) and §864(b)(2)(B)(ii) have also been extended to proprietary trading in derivative transactions including over-the-counter derivative transactions.[974]

Commentary: IRS guidance in Notice 2014-21 provides that virtual currency is property which is not currency for federal tax purposes. Additionally, it appears virtual currencies are unlikely to be treated as securities for purposes of the stocks and securities trading safe harbor in §864(b)(2)(A). If that is the case, the commodities trading safe harbor currently would be the only trading safe harbor in §864(b)(2)(B) potentially available for crypto trading.

3. *Commodities Trading Safe Harbor — Considerations for Crypto Proprietary Trading*

Under §864(b)(2)(B)(i) and §864(b)(2)(B)(ii), when a trade or business activity conducted within the United States constitutes active proprietary trading in commodities, an exception from being treated as engaged in a trade or business within the United States may be applicable to foreign persons for trading in crypto virtual currencies to the extent such assets qualify as "commodities." Accordingly, a trading activity that otherwise constitutes a trade or business to a domestic person is exempted from being treated as a trade or business within the United States when the person is foreign. For this purpose, if trading is conducted by a U.S. domestic partnership, the trading safe harbor exemption applies to the domestic partnership and is "passed-through" to the foreign taxpayer level (i.e., looking through all partnerships that either conduct the trading or may otherwise be investment partnerships that own the trading partnerships).[975]

The term "trading in commodities" includes trading by a taxpayer (other than a dealer in commodities) for the taxpay-

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[967] *See* §871(b), §882(a).

[968] *See* §875(1), §875(2).

[969] *See* §871(b), §882(a).

[970] §874(a) (nonresident alien individuals), §882(c)(2) (foreign corporations); Reg. §1.874-1(a), §1.882-4(a) (providing that deductions and credits are permitted in determining net taxable income only if a tax return is filed within the prescribed timeframe and manner provided). The courts have upheld these regulations that deny deductions and also applied them for purposes of the 2001 United States-United Kingdom income tax treaty. *See Swallows Holding, Ltd. v. Commissioner*, 126 T.C. 96 (2006), vacated and remanded, 515 F.3d 162 (3d Cir. 2008)); *Adams Challenge (UK) Ltd. v Commissioner*, 156 T.C. 16 (2021).

[971] For more detailed discussion of the ECI rules, see 6400 T.M., *U.S. Income Taxation of Nonresident Alien Individuals* (Foreign Income Series), and 6460 T.M., *U.S. Income Taxation of Foreign Corporations* (Foreign Income Series).

[972] These are common international tax considerations involving ECI and digital assets.

[973] §864(b)(2)(A)(i), §864(b)(2)(B)(i).

[974] Prop. Reg. §1.864(b)-1, REG-106031-98 (June 12, 1998).

[975] §1.864-2(d)(2)(ii). The same trading safe harbor exemption is available for trading in stocks or securities.§1.864-2(c)(2)(ii).

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er's own account, whether by the taxpayer or his employees or through a resident broker, commission agent, custodian, or other agent, and whether any such employee or agent has discretionary authority to make decisions in effecting the transactions.[976] If the trading is conducted through a U.S. office or fixed place of business, and if the taxpayer is a dealer anywhere in the world other than the United States, then their proprietary trading in the United States is disqualified even if no customer dealing is transacted within the United States.[977] Accordingly, §864(b)(2)(B)(ii) affords a proprietary trading safe harbor only to foreign persons that are nondealers on a worldwide basis. However, if a taxpayer is a dealer exclusively outside the United States, then they may still trade for their own account through a U.S. independent agent under the general commodities trading safe harbor in §864(b)(2)(B)(i).

The commodity trading safe harbor is available only if the commodities meet the following two-part test provided by §864(b)(2)(B)(iii):

- The commodities must be of a kind customarily dealt in on an "organized commodity exchange," and
- The actual transaction must be of a kind customarily consummated at such place.[978]

Thus, for the commodities trading safe harbor to be available, the first question is whether the virtual currency is considered a commodity for purposes of §864(b)(2)(B).

Rev. Rul. 73-158, addressed the meaning of the term "commodity" as used in §864(b)(2)(B). The IRS ruled that "[t]he word 'commodities' is used in section 864(b)(2)(B) of the Code in its ordinary financial sense and includes all products that are traded in and listed on commodity exchanges located in the United States. Furthermore, the word 'commodities' includes the actual commodity and commodity futures contracts."[979]

Commentary: The application of this definition to cryptocurrency is not straightforward. For example, based on the fact that bitcoin and ETH futures contracts currently trade on the CME, and on the ICE Futures U.S. ("IFUS") exchange, bitcoin and ETH arguably appear to be of a type of property, that trades consistently in the same manner as other property that the IRS has ruled qualifies as "commodities" for purposes of the commodities trading safe harbor provided in §864(b)(2)(B).

In contrast, it remains more difficult to interpret the qualification under §864(b)(2)(B) of other cryptocurrencies that do not trade in the same manner as foreign currencies or oil and other commodities on U.S. futures exchanges. Thus, the risk is that cryptocurrencies have a greater risk of being treated as neither commodities nor securities.

While the securities trading safe harbor under §864(b)(2)(A) might apply to cryptocurrencies to the extent the IRS ultimately agrees to treat cryptocurrency contracts as securities for federal income tax purposes, until such time that a more definitive IRS or Treasury pronouncement is made, trading a cryptocurrency or other token that currently is not treated as a commodity or a security stands a higher risk of being treated as some other type of personal property for purposes of §864(b)(2).

In such a case, they would be outside the scope of the §864(b)(2) trading safe harbor and the trading (and other) activities of a foreign person could constitute U.S. trade or business such that the foreign person's activities could give rise to is U.S.-source ECI under §864(c)(2) if the asset is treated as a capital asset whose income or gain from its disposition is attributable to a U.S. office or other fixed place of business under §865(e)(2). Alternatively, if the cryptocurrency is treated as inventory under §1221(a), the trading safe harbor does not apply to such sales within the United States, even if effected through a U.S. independent agent and even if the cryptocurrency otherwise qualified as a commodity or a security. In such circumstances, when a taxpayer is engaged in a U.S. trade or business, income or gain from the sale of inventory is treated as ECI under §864(c)(3) if rights and title are passed in the United States[980] and the inventory sale is therefore treated as U.S. source. Such inventory property may also be treated as US-source effectively connected income if the sale is attributable to a U.S. office or other fixed place of business under §865(e)(2)(A) even if rights and title to such sale pass outside the United States.[981]

For further discussion of the safe harbors for trading in commodities, see 6460 TM, *U.S. Income Taxation of Foreign Corporations* (Foreign Income Series).

4. *Effect of Crypto Lending on the Determination of a Trade or Business Within the United States*

The IRS has ruled that securities lending transactions of investment funds classified as foreign corporations for federal income tax purposes were the "effecting of transactions in the United States in stocks or securities" within the meaning of Reg. §1.864-2(c)(2) where the transactions all met the requirements of §1058 and the foreign funds were not dealers in securities and were not otherwise engaged in trade or business within the United States.[982] Because the securities lending transactions were ruled to be the effecting of such transactions, the funds were treated as not engaged in a trade or business in the United States solely by reason of their securities lending activity. While the concept of "effecting of transactions" by its terms applies to stocks and securities and may not extend to commodities, the characterization of a securities lending transaction as an investment activity when undertaken in a noncustomer capacity may be reasonably compatible for "investing treatment" as the term "investing" is also often interpreted to be encompassed within commodities trading safe harbor treatment under Reg. §1.864-2(d)(iii).[983]

[976] §864(b)(2)(B)(ii).
[977] §864(b)(2)(C).
[978] §864(b)(2)(B)(iii).
[979] Rev. Rul. 73-158.

[980] *See* Reg. §1.861-7(c).
[981] See 900 T.M., *Foundations of U.S. International Taxation* (Foreign Income Series), for a more detailed discussion of effectively connected income.
[982] PLR 9041011.
[983] §864(b)(2)(B)(iii) (commodities safe harbor applies only if the "commodities are of a kind customarily dealt in on an organized commodity exchange and if the transaction is of a kind customarily consummated at such place"). Investing as compared to trading does not constitute a trade or business under §162 principles. *Higgins v. Commissioner*, 312 U.S. 212 (1941). *See also Holsinger v. Commissioner*, T.C. Memo 2008-191; *Moller v. United States*, 721 F.2d 810 (Fed. Cir. 1983), cert. denied, 467 U.S. 1251 (1984); *Purvis v. Commissioner*, 530 F.2d 1332, 1334 (9th Cir. 1976). Further, the domestic treatment of investing versus trading is encompassed in the determination of a

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Commentary: It is therefore necessary to determine whether the crypto lending is more closely assimilated to an investment activity (e.g., when a U.S. brokerage firm lends a stock out of a customer's brokerage investment account), trading, or dealing for and with customers. If such activity is noncustomer proprietary trading, it then becomes necessary to determine whether the crypto loaned qualifies as a commodity for §864(b)(2)(B) purposes when such transacting is conducted through a U.S. office or fixed place of business. If such activity does constitute regular and continuous trading through an actual or deemed U.S. office or fixed place of business in an asset that is not a stock, security, or qualified commodity, then such "trading" constitutes the active conduct of a trade or business in the United States for which a trading safe harbor is not available.

Commentary: In addition, it is important to analyze the fees associated with crypto lending transactions. As discussed in VII.F., above, because crypto is not money, loans are not evidence of indebtedness and therefore the borrower is deemed to pay a fee rather than interest. The withholding tax implications of securities lending have traditionally looked to the sourcing rules of fails charges, the terms of the arrangement, and the particular activities of the borrower.[984] Careful consideration should be given to these arrangements to determine whether the 30% withholding tax imposed by §1441 applies, particularly for those facilitating lending transactions.

Commentary: The IRS has not issued any guidance providing qualified nonrecognition treatment to crypto lending, including when the terms of the loan contract would meet the requirements of §1058(b) but for the fact that the underlying property is not a stock or security. Accordingly, if crypto lending regularly transacted in the United States were to be treated as a recognition transaction to which the principles of §1058(a) do not apply, that would increase the need for either the activity to qualify as investing or the cryptocurrency at issue to satisfy the qualified commodity definition for purposes of the trading safe harbor.

5. *Commentary on Considerations for Decentralized Business Models*

As discussed in other chapters, decentralized protocols operate with a wide range of centralized authority or human interactions, some with very little centralization and others with a foundation or representative agent. With each of these models, careful consideration should be given to the jurisdictions where the activities take place. As an example, DeFi protocols may have participants who are actively involved in programming smart contracts or architecting liquidity pools. The assets in these models might be characterized as inventory or personal property with unique considerations as to how they are solicited. In addition, the obligations of withholding tax may fall to the payor with little knowledge of the other party in the transaction.

For non-U.S. entities that represent decentralized protocols, applications, or DAOs, there may be humans involved in the deployment of new code or funds. The actions of the personnel with the authority to take these actions may be taken in a variety of jurisdictions, including the United States. In such cases, care should be given as to whether or not these activities give rise to a taxable presence in the United States under generally applicable U.S. trade or business authorities. It is important to note that even in situations in which the income-producing activities give rise to ECI, there may still be allowed a deduction if associated with a trade or business, therefore reducing the amount of net income subject to U.S. tax.

Those organizations offering staking activities for non-U.S. owners of digital assets should take care in considering the location of the machines that operate the nodes or the design of the cloud hosting service if associated with the United States. Even if the assets are held outside of the United States, the rights to use those assets and produce a return in the United States merits careful analysis of the rules.

For further discussion of decentralized finance, see VII.E., above, and see VII.H., above, discussing decentralized autonomous organizations. For further discussion of ECI, see 6400 T.M., *U.S. Income Taxation of Nonresident Alien Individuals* (Foreign Income Series) and 6460 T.M., *U.S. Income Taxation of Foreign Corporations* (Foreign Income Series).

B. *Controlled Foreign Corporations (CFCs)/GILTI/ Subpart F*

1. *Foreign Personal Holding Company Income*

A U.S. shareholder of a controlled foreign corporation (CFC) is subject to current U.S. taxation on the subpart F income of the foreign corporation.[985] The shareholders that are subject to tax under subpart F are U.S. persons owning 10% or more of the voting stock or, for corporate tax years beginning after December 31, 2017, 10% or more of the value of all classes of stock in a CFC (U.S. shareholders).[986] U.S. shareholders must include in their gross income certain types of income (and investments) of the foreign corporation that otherwise would not be currently taxable to them under general federal income tax principles; however, inclusion applies only if the foreign corporation is a CFC.[987]

Subpart F income consists of several categories of income.[988] One of the principal categories of subpart F income is foreign base company income, as defined under §954.[989] Foreign base company income, in turn, consists of several categories of income, one of which is foreign personal holding company income (FPHCI).[990]

U.S. trade or business of a foreign person. *Adda v. Commissioner*, 10 T.C. 273, 277 (1948) *citing Fuld v. Commissioner*, 139 F.2d 465 (2d Cir. 1943) ("Trading in commodities for one's own account for profit may be a "trade or business" if sufficiently extensive.").

[984] *See* Reg. §1.863-10.

[985] Subpart F of subtitle A, chapter 1, subchapter N, part III of the Internal Revenue Code (§951–§965). *See* 926 T.M., *CFCs — General Overview* (Foreign Income Series).

[986] §951(b).

[987] §951(a).

[988] *See* §952.

[989] §952(a)(2). Foreign base company income is discussed in more detail in 6240 T.M., *CFCs — Foreign Base Company Income (Other than FPHCI)* (Foreign Income Series), and 6220 T.M., *CFCs — Foreign Personal Holding Company Income* (Foreign Income Series).

[990] §954(a).

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In general, FPHCI consists of several types of passive, financial, or otherwise movable types of income.[991] The definition of FPHCI is subject to several exceptions and special rules. These include certain exceptions applicable to transactions engaged in by dealers and commodity merchants.

Specifically, because digital assets are property (and sometimes commodities), they could potentially fall within §954(c)(1)(B) and §954(c)(1)(C). Under the ordering rule of Reg. §1.954-2(a)(2), if any portion of income, gain or loss from a transaction is described in more than one category of FPHCI, that portion of income, gain or loss is treated solely as income, gain or loss from the category of FPHCI with the highest priority. Because digital assets can be both commodities and properties, one must first consider the ordering rule that applies to these two categories of FPHCI. In this regard, gain or loss from commodities transactions takes priority over gain or loss from certain property transactions.

2. Commodities Transactions Under §954(c)(1)(C)

Section 954(c)(1)(C) includes "[t]he excess of gains over losses from transactions (including futures, forward, and similar transactions) in any commodities."[992] Despite §954(c)(1)(C) applying to transactions in "any commodities," the statute does not define "commodity" or "commodities." The statute, and the related regulations, describe "commodity" in a broad, exemplary manner for purposes of determining FPHCI.[993] And, similar to certain other Code provisions, the only apparent limitation seems to be that a commodity for purposes of §954(c)(1)(C) is a commodity of a kind that is actively traded.[994]

While §954(c)(1)(C) does not define commodity, the regulations provide that for purposes of §954(c)(1)(C) the term " commodity " "includes tangible personal property of a kind that is actively traded or with respect to which contractual interests are actively traded."[995] The final regulations promulgating these rules added the verb "includes," which had not appeared in the temporary regulations.[996] In cases where a definition has been introduced with the verb "includes," "[t]his word choice is significant because it makes clear that the examples enumerated in the text are intended to be illustrative, not exhaustive."[997] Section 7701(c) provides, "[t]he terms "includes" and "including" when used in a definition contained in this title shall not be deemed to exclude other things otherwise within the meaning of the term defined. The regulatory definition does not limit the term "commodity" to tangible personal property, nor is it certain that "commodity" is limited to other exemplary attributes (e.g., actively traded).[998]

Furthermore, in the preamble to the final regulations, the IRS stated that it had received several comments arguing that the temporary regulations had defined the term "commodity" too broadly, and that the regulations should apply only to commodities that are actively traded on a regulated exchange similar to former §553 and §864(b)(2)(B).[999] The IRS rejected the comments, and, in the preamble to the final regulations, stated:

> [T]he statute and its legislative history make clear that section 954(c)(1)(C) is intended to apply broadly to any commodity of a kind that is actively traded. Thus, there is no reason to distinguish income from a disposition of a commodity actively traded on a regulated exchange from income from a disposition of a commodity of a kind that is otherwise actively traded.[1000]

Note: When property is traded on one or more regulated commodities exchanges, the IRS has ruled that such conditions qualify for commodities treatment for purposes of §864(b)(2)(B).[1001]

The preamble leaves little doubt that the IRS interprets the term "commodity," expansively for purposes of §954(c)(1)(C), which would mean it applies broadly to transactions in "any commodities." While this definition of "commodity" is based upon the underlying term "commodity" which is not defined by §954(c)(1)(C) or the related regulations, the term "commodity" would appear to include various types of digital assets. Moreover, many digital assets may be treated as actively traded personal property within the meaning of §1092(d)(1), and this definition is likely to inform other provisions that do not explicitly

[991] *See* §954(c).

[992] §954(c)(1)(C) (emphasis added) (subject to exceptions for active business, hedging, and foreign currency transactions). See 6220 T.M., *CFCs — Foreign Personal Holding Company Income* (Foreign Income Series). *But see* §954(c)(1)(C)(ii) (providing an exception for active business gains or losses from the sale of commodities if substantially all of the CFC's commodities are property described in §1221(a)(1), §1221(a)(2), or §1221(a)(8)).

[993] *Compare* §954(c)(1)(C) ("any commodities"), *with* Reg. §1.954-2(f)(2)(i) ("[T]he term commodity includes tangible personal property of a kind that is actively traded or with respect to which contractual interests are actively traded."), *and* Preamble to T.D. 8618, 60 Fed. Reg. 46,500, 46,505 (Sept. 7, 1995) ("[T]he statute and its legislative history make clear that section 954(c)(1)(C) is intended to apply broadly to any commodity of a kind that is actively traded.").

[994] Reg. §1.954-2(f)(2)(i); Preamble to T.D. 8618, 60 Fed. Reg. at 46,505. *See, e.g.*, §59A(h)(4)(A)(iii) ("Any commodity which is actively traded."), §475(e)(2)(A) ("any commodity which is actively traded (within the meaning of section 1092(d)(1)").

[995] Reg. §1.954-2(f)(2)(i) (emphasis added).

[996] Preamble to T.D. 8618, 60 Fed. Reg. 46,500, 46,505 (Sept. 7, 1995).

[997] *Confederated Tribes & Bands of the Yakama Indian Nation v. Alcohol & Tobacco Tax & Trade Bureau*, 843 F.3d 810, 813 (9th Cir. 2016); §7701(c) ("The terms 'includes' and 'including' when used in a definition contained in this title shall not be deemed to exclude other things otherwise within the meaning of the term defined.").

[998] *But see* PLR 200825009 (the IRS refused to conclude that CO^2 allowances that were traded over the counter and on foreign exchanges were commodities for purposes of §954(c)(1)(C); instead, the IRS stated: "Taxpayer argues that CO^2 allowances should be viewed as commodities for purposes of Code section 954(c)(1)(C). The Service is currently studying this question. … No inference is intended as to whether CO^2 allowances are properly considered commodities for purposes of Code section 954 or any other section of the Code.").

[999] *But see* PLR 8527041 (for purposes of §864(b)(2)(B) there is no requirement that the transactions be consummated on an organized exchange), PLR 8813012 (transactions in forward contracts serve essentially the same financial purpose as regulated futures and were commodities for purposes of §864(b)(2)(B)), PLR 8326013 (foreign currency forwards were commodities).

[1000] T.D. 8618, 60 Fed. Reg. 46,500, at 46,505 (Sept. 7, 1995) (emphasis added).

[1001] See IV.A.5., above, for definition of "commodity" for purposes of the §864(b)(2)(B)(ii) proprietary trading safe harbor that encompasses active trading. *See, e.g.*, PLR 8807004 (Treasury bond futures, Treasury note futures and GNMA futures traded on the Chicago Board of Trade; Treasury bill futures traded on the Chicago Mercantile Exchange; and Treasury bond futures and Treasury bill futures traded on the Mid-America Commodities Exchange were treated as both securities for purposes of §864(b)(2)(A)(ii) and commodities for purposes of §864(b)(2)(B)(ii). The IRS has also stated that "for purposes of *section 864(b)(2)(B)*, a commodity includes all products that are traded in and listed on a commodity exchange in the United States. *See* Rev. Rul. 73-158"). *See also* PLR 8813012.

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reference §1092(d)(1).[1002] Thus, many digital assets would appear to be treated as a commodity for purposes of §954(c)(1)(C).

For further discussion of the commodities transactions category of §954(c)(1)(C), see 6220 T.M., *CFCs — Foreign Personal Holding Company Income* (Foreign Income Series).

C. Foreign-Derived Intangible Income (FDII) Issues Relating to Sale of Cryptocurrency

1. Overview of §250 and Foreign-Derived Intangible Income

One of the central goals of the TCJA, enacted on December 22, 2017, was to create a more tax-efficient environment for companies operating in the United States and to make the U.S. tax system more competitive world-wide.[1003] With that in mind, Congress enacted §250 to provide a domestic corporation a deduction for its "foreign-derived intangible income" (FDII) and "global intangible low-taxed income" (GILTI) for its taxable years beginning after December 31, 2017. The §250 deduction is equal to the sum of 37.5% of the domestic corporation's FDII, plus 50% of its GILTI and the related §78 gross-up.[1004] The focus of this discussion is on the portion of the §250 deduction related to FDII.[1005]

FDII is determined on a formulaic basis and calculated by multiplying a domestic corporation's deemed intangible income (DII) by a fraction, the numerator of which is the corporation's "foreign-derived deduction eligible income" (FDDEI) and the denominator of which is the corporation's total "deduction eligible income" (DEI).[1006] DEI is the excess (if any) of the corporation's gross income (without certain excluded items) for the taxable year over the deductions properly allocable to such gross income.[1007] DII is the excess (if any) of the DEI of the domestic corporation over the deemed tangible income return of the corporation.[1008]

FDDEI is the "foreign-derived" portion of DEI. Specifically, FDDEI is the DEI of a domestic corporation derived in connection with: (i) property that is sold by the taxpayer to any person who is not a United States person, and that the taxpayer establishes to the satisfaction of the Secretary is for a foreign use; or (ii) services provided by the taxpayer that the taxpayer establishes to the satisfaction of the Secretary are provided to any person, or with respect to property, are not located within the United States.[1009] These sales and services are referred to as "FDDEI sales" and "FDDEI services," respectively, under the §250 regulations.[1010]

An FDDEI sale is a sale of general property or a sale of intangible property that meets the "foreign person" and "foreign use" requirements.[1011] A sale of any property other than general property or intangible property is not an FDDEI sale. "Sale" is broadly defined for purposes of §250 to include any sale, lease, license, sublicense, exchange, or other disposition.[1012] Because most cryptocurrency transactions involve transfers that are treated as "sales" for FDII purposes, the focus of this discussion is on FDDEI sales.

2. Property Determination for FDDEI Sales

Because an FDDEI sale is defined to include only a sale of general property or a sale of intangible property, the first inquiry is whether the cryptocurrency at issue is considered general property or intangible property.

General property means "any property *other than*: (i) intangible property; (ii) a security as defined in §475(c)(2); (iii) an interest in a partnership, trust, or estate; (iv) a commodity described in §475(e)(2)(A) that is not a physical commodity; and (v) a commodity described in §475(e)(2)(B) through §475(e)(2)(D)."[1013] The regulations further provide that:

> A physical commodity described in §475(e)(2)(A) is treated as general property, including if it is sold pursuant to a forward or option contract … that is *physically settled by delivery of the commodity* (provided that the taxpayer physically settled the contract pursuant to a consistent practice adopted for business purposes of determining whether to cash or physically settle such contracts under similar circumstances).[1014]

Commentary: An uncertainty exists as to whether a cryptocurrency can be considered a tangible asset, or whether it may be treated as a commodity that is physically delivered, given that cryptocurrencies, in general, have physical and tangible attributes (e.g., private key access that is unique in nature and retained physically on the cryptocurrency paper wallet, or electronically on a USB drive or a software solution that manages the user keys, the loss of which would result in the loss of

[1002] See discussion in IV.A.5., above.

[1003] *See* S. Fin. Comm., 115th Congress, "Exp. of the Bill (the Tax Cuts and Jobs Act of 2017)," at 370 (Nov. 22, 2017) (cited further below).

[1004] §250(a)(1); Reg. §1.250(a)-1(b)(1). The percentage-deductions for FDII and GILTI are reduced to 21.875% and 37.5%, respectively, for taxable years beginning after December 31, 2025. §250(a)(3); Reg. §1.250(a)-1(b)(3). The Treasury Department and IRS published final regulations under §250 on July 15, 2020, which are applicable to tax years beginning on or after January 1, 2021. T.D. 9901, 85 Fed. Reg. 43,042 (July 15, 2020).

[1005] For more detailed discussion of the §250 deduction related to FDII, see 6360 T.M., *Export Tax Incentives* (Foreign Income Series). For more detailed discussion of the §250 deduction related to GILTI, see 6215 T.M., *Global Intangible Low-Taxed Income (GILTI)* (Foreign Income Series).

[1006] §250(b)(1); Reg. §1.250(b)-1(b), §1.250(b)-1(c)(13).

[1007] §250(b)(3); Reg. §1.250(b)-1(c)(2). Note, DEI excludes "foreign branch income." §250(b)(3)(A)(i)(VI) and Reg. §1.250(b)-1(c)(15)(vi). The term "foreign branch income" excludes passive income, and specifically refers to the business profits of such U.S. person attributable to one or more qualified business units (as defined in §989(a)) in one or more foreign countries. §904(d)(2)(J). A "qualified business unit" is any separate and clearly identified unit of a trade or business of a taxpayer that maintains separate books and records. §989(a). Accordingly, any non passive income earned by a foreign-qualified business unit of the taxpayer will not give rise to DEI and, therefore, will not give rise to a deduction under §250(a)(1)(A).

[1008] §250(b)(2)(A); Reg. §1.250(b)-1(c)(2). Section 250(b)(2)(B) defines the term "deemed tangible income" with respect to any corporation as an amount equal to 10% of the corporation's qualified business asset investment deployed to generate DEI.

[1009] §250(b)(4). *See also* Reg. §1.250(b)-1(c)(12).

[1010] Reg. §1.250(b)-1(c)(8), §1.250(b)-1(c)(9).

[1011] An FDDEI sale has the meaning and requirements set forth in Reg. §1.250(b)-4(b).

[1012] §250(b)(5)(E). *See also* Reg. §1.250(b)-3(b)(16).

[1013] Reg. §1.250(b)-3(b)(10). For a discussion of whether a cryptocurrency would be considered a security or commodities under §475, see V.D., above.

[1014] Reg. §1.250(b)-3(b)(10) (emphasis added). *See also* T.D. 9901, 85 Fed. Reg. 43,049 for "Treatment of Commodities." An in-depth discussion of whether cryptocurrency would be considered a "physical commodity" is beyond the scope of this Portfolio.

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the cryptocurrency held in the related address), with the inherent limitation of being usable by only one party at a time and it cannot be financially delivered due to the reliance on recipients' public and private key access.

For FDII purposes, intangible property has the meaning set forth in §367(d)(4)[1015] but does not include a copyrighted article as defined in Reg. §1.861-18(c)(3).[1016] A copyrighted article includes "a copy of a computer program from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device," and that "[t]he copy of the program may be fixed in the magnetic medium of a floppy disk, or in the main memory or hard drive of a computer, or in any other medium."[1017] It should be noted, however, that the Treasury Department and the IRS proposed amendments to Reg. §1.861-18(c)(3) that would expand the scope of the existing Reg. §1.861-18 to apply to all transfers of "digital content," and not just computer programs.[1018]

Commentary: Given the breadth of the definition of intangible property in §367(d)(4), it is possible that different types of cryptocurrencies may be classified as intangible property. Post TCJA, §367(d)(4)(G) provides a catch-all of "any … other item the value or potential value of which is not attributable to tangible property or the services of any individual." In theory, a cryptocurrency not otherwise representing rights otherwise described in §367(d)(4) would fall into this broad category so long as it does not represent a bare right to tangible property or the services of one or more individuals.

However, an interpretive issue is raised by the exclusion of a "copyrighted article" (as defined in Reg. §1.861-18(c)(3)) from the definition of intangible property for FDII purposes. It is unclear whether a "copyrighted article" should be read narrowly to refer to a computer program, or more broadly to incorporate the proposed amendments to Reg. §1.861-18 to include digital content, which is broader.

If the reference to a "copyrighted article" is read narrowly to refer to a computer program, it is difficult to see how most cryptocurrencies could be treated as copyrighted articles excluded from the definition of intangible property for FDII purposes. While cryptocurrencies are used and exchanged by way of a "computer program," they are not computer programs in and of themselves. If cryptocurrencies are not excluded from the definition of intangible property, many of the concepts surrounding cryptocurrencies do not appear to fit neatly into the ways we conceive of rights in more traditional intangibles, such as geographic restrictions on their use. On the other hand, if the reference to a "copyrighted article" is read broadly to incorporate the proposed amendments to Reg. §1.861-18 to include digital content, then most cryptocurrencies likely could be treated as copyrighted articles and therefore excluded from the definition of intangible property for FDII purposes. However, cryptocurrencies in general are not copyrighted, which raises the question whether uncopyrightable cryptocurrencies can be treated as copyrighted articles and excluded from the definition of intangible property. If cryptocurrencies are not treated as intangible property, then the analysis continues to determine whether the cryptocurrencies at issue would fall into any of the other excluded items from the definition of general property in Reg. §1.250(b)-3(b)(10) (e.g., a commodity described in §475(e)(2)(A) that is not a physical commodity) as discussed above.

3. Determination of Foreign Person

For a sale to qualify as an FDDEI sale, the sale must be made to a recipient that is a foreign person, which is defined as a person that is not a United States person and includes a foreign government or an international organization.[1019] A sale of property is presumed to be to a recipient that is a foreign person if the sale is described in one of the four following categories: (i) foreign retail sales;[1020] (ii) sales of general property that are not a foreign retail sale and the general property is delivered (such as through a commercial carrier) to the recipient or an end user with a shipping address outside the United States; (iii) in the case of a sale of general property that is not sold in a foreign retail sale or delivered through a commercial carrier overseas, the billing address of the recipient is outside the United States; or (iv) in the case of sales of intangible property, the billing address of the recipient is outside the United States.[1021] This presumption does not apply if the seller knows or has reason to know that the sale is not to a foreign person.[1022]

Accordingly, to determine whether there was a sale to a foreign person, the taxpayer must have knowledge of the counterparty to the transaction. Sales of cryptocurrencies can present unique issues where the asset is disposed of via a centralized or decentralized exchange. In many cases, the seller will not have specific knowledge of the purchaser. This can be contrasted with a direct private sale or a sale via an OTC desk, where the counterparty can be known.

[1015] See §367(d)(4) for a complete list of terms that defines "intangible property."

[1016] Reg. §1.250(b)-3(b)(11).

[1017] Reg. §1.861-18(c)(3). A "computer program" is defined for purposes of Reg. §1.861-18 as:

> [A] set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result. For purposes of [Reg. §1.861-18(a)(3)], a computer program includes any media, user manuals, documentation, data base or similar item if the media, user manuals, documentation, data base or similar item is incidental to the operation of the computer program.

Reg. §1.861-18(a)(3).

[1018] For further discussion of guidance from the Treasury Department on classification of transactions involving digital content, see 6620 T.M., *Source of Income Rules* (Foreign Income Series).

[1019] Reg. §1.250(b)-3(b)(5). A person is defined by reference to §7701(a)(1), which includes "an individual, a trust, estate, partnership, association, company or corporation." Reg. §1.250(b)-3(b)(5). The term "United States person" is defined by reference to §7701(a)(30), except that the term does not include an individual that is a bona fide resident of the United States within the meaning of §937(a). Reg. §1.250(b)-3(b)(19). Section 7701(a)(30) defines a United States person as: (i) a citizen or resident of the United States; (ii) a domestic partnership; (iii) a domestic corporation; (iv) any estate (other than a foreign estate within the meaning of §7701(a)(31)); and (v) certain trusts if a court within the United States is able to exercise primary supervision over the administration of the trust.

[1020] Reg. §1.250(b)-3(b)(7) defines "foreign retail sale" as "a sale of general property to a recipient that acquires the general property at a physical location (such as a store or warehouse) outside the United States."

[1021] Reg. §1.250(b)-4(c).

[1022] Reg. §1.250(b)-4(c)(1).

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4. Determination of Foreign Use

a. Foreign Use of General Property

Generally, unless the sales amount to property subject to manufacturing, assembly, or other processing in the United States, the sale of general property is for a foreign use if the seller determines that the sale is to an end user.[1023] This determination differs depending on the following types of sales: (i) delivered to an end user by a carrier or freight forwarder; (ii) delivered to an end user without the use of a carrier or a freight forwarder; (iii) resale; (iv) digital content sales; (v) international transportation property used for compensation or hire; and (vi) international transportation property not used for compensation or hire.[1024] For sales for manufacturing, assembly, or other processing, end user determination would depend on whether the property is subject to physical and material change, or incorporated into a product as a component.[1025]

For sales of general property that primarily contains digital content that is transferred electronically, the regulations provide that such sale can be determined to be for foreign use if the "end user downloads, installs, receives, or accesses the purchased digital content on the end user's device outside the United States."[1026] The regulations do not prescribe how to determine where the end user downloads, installs, receives, or accesses the purchased digital content, but suggests that a device's Internet Protocol address (IP address) may be sufficient to make such determination. The preamble to the regulations provides that in the instance where the IP address does not serve as a reliable proxy for the end user's location, the IP address might not be used to inform on the end user's access point.[1027]

Commentary: Interpreting the foreign use requirements in the context of cryptocurrencies raises many complexities. For example, if the taxpayer treats the sale of a cryptocurrency as the sale of digital content, there is a question as to who is the "end user" of the cryptocurrency. Under Reg. §1.250(b)-3(b)(2), the end user means "the person that ultimately uses or consumes property or a person that acquires property in a foreign retail sale." If the purchaser of the cryptocurrency acquires the property with an intent to immediately dispose of the property, it is unclear if such purchase can be considered "ultimate" use or consumption. Further, unlike many traditional goods and intangibles, cryptocurrencies are not consumed and do not degrade over time. A utility token may be used to effect a transaction; however, such use does not consume the property and as such it will be "used" again. This complicates any analysis of "ultimate" use of cryptocurrencies.

Commentary: The sale of a cryptocurrency can be contrasted with other potential uses. For example, it may be argued that using a cryptocurrency to pay the "gas fee" on a blockchain is a use for another purpose — specifically to record another transaction on the blockchain. Further, staking a cryptocurrency may constitute "use," as this activity generates an ongoing revenue stream. It is unclear whether the activity of holding a cryptocurrency for investment purposes can be considered "use." In addition, demonstrating foreign use may be challenging in the case of cryptocurrencies. As noted, foreign use of digital content transferred electronically is determined based on where the end user downloads, installs, receives, or accesses the digital content on the end-user's device. However, a cryptocurrency wallet has no corresponding physical location. It is generally not possible to determine where the user is receiving or accessing a cryptocurrency without looking to other indicators (e.g., contract terms) or circumstantial evidence.

b. Foreign Use of Intangible Property

A sale of rights to exploit intangible property solely outside the United States is for a foreign use, while a sale of rights to exploit intangible property solely within the United States is not for a foreign use. A sale of rights to exploit intangible property worldwide is partially for a foreign use and partially not for a foreign use. Whether intangible property is exploited within versus outside the United States is determined based on revenue earned from end users located within versus outside the United States.[1028] An end user, unless otherwise specified, generally is defined as the person that ultimately uses or consumes property, and does not include a person that acquires property for resale or otherwise as an intermediary.[1029] Specific rules are provided for determining end users and revenue earned from end users with respect to different types of intangible property, including: (i) intangible property embedded in general property or used in connection with the sale of general property; (ii) intangible property used in providing a service; (iii) intangible property consisting of a manufacturing method or process; and (iv) intangible property used in research and development.[1030] Accordingly, it would appear that a sale of a cryptocurrency, if treated as a sale of intangible property, would not fit squarely into these four categories.

The determination of revenue from end users differs depending on whether the sale is: (i) in exchange for periodic payments; or (ii) a lump sum. In the case of a sale for periodic payments, the extent to which the sale is for a foreign use is generally determined annually based on the actual revenue earned by the recipient from any use of the intangible property for the taxable year in which a periodic payment is received.[1031] In the case of sales for a lump sum, the determination of foreign use is generally based on the ratio of the total net present value of revenue the seller would have expected to earn from the exploitation of the intangible property outside the United States to the total net present value of revenue the seller would have expected to earn from the exploitation of the intangible property. If the recipient is a foreign unrelated party, net present values of revenue that the recipient expected to earn from the exploitation of the intangible property within and outside the United States may also be used if the seller obtained such revenue data from the recipient near the time of the sale and such revenue data was used to negotiate the lump sum price paid for the intangible property. In determining whether such inputs are reli-

[1023] Reg. §1.250(b)-4(d)(1).
[1024] Reg. §1.250(b)-4(d)(1)(ii).
[1025] Reg. §1.250(b)-4(d)(1)(iii).
[1026] Reg. §1.250(b)-4(d)(1)(ii)(D).
[1027] T.D. 9901, 85 Fed. Reg. 43,042, 43,054 (July 15, 2020).
[1028] Reg. §1.250(b)-4(d)(2)(i).
[1029] Reg. §1.250(b)-3(b)(2).
[1030] *See* Reg. §1.250(b)-4(d)(2)(ii).
[1031] Reg. §1.250(b)-4(d)(2)(iii)(A).

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able, the extent to which the inputs are used by the parties to determine the sales price agreed to between the seller and a foreign unrelated party purchasing the intangible property will be a factor. On the other hand, if the intangible property is sold to a foreign related party, the reliability of the inputs used to determine net present values is determined under §482.[1032]

Commentary: In many respects, the foreign use rules particular to intangible property do not prove an easy fit for the concepts relevant to cryptocurrencies. Generally, foreign use of intangible property is determined by looking to where the rights are exploited, which is determined based on revenue earned by end users. As discussed above, an end user does not include a person that acquires property for resale or otherwise as an intermediary. In the conceptual framework of intangible property, it is unclear how to determine where the cryptocurrencies are treated as "exploited" and who the "end user" is. As discussed in III.F., above, while cryptocurrencies may fluctuate in value, they do not depreciate. The "use" of the cryptocurrency may be transacting and disposing of the asset but could also involve something else (such as staking). Thus, ambiguity exists as to how to fit cryptocurrencies within the framework of intangible property for purposes of determining foreign use.

5. Substantiation Requirements

The regulations provide specific substantiation requirements with respect to certain transactions.[1033] In the case of sales of intangible property, for example, the regulations require specific substantiation such as credible evidence obtained in the ordinary course of business from the recipient establishing the portion of its revenue that was derived from exploiting the intangible property outside the United States, or a written statement prepared by the seller containing information about the transaction, the intangible property, and how the foreign use determination was made.[1034] Given the particular challenges of defining cryptocurrencies and substantiating foreign use for purposes of §250, taxpayers are well-served by analyzing the specific rules and substantiation requirements under the regulations before engaging in transactions.

For further discussion of the substantiation requirements, see 6200 T.M., *CFCs — General Overview* (Foreign Income Series).

D. Sourcing and Withholding

1. Introduction

Determination of U.S. tax imposed on both U.S. citizens, resident alien individuals, and domestic corporations on the one hand, and nonresident alien individuals and foreign corporations on the other, relies in part on determining the "sources" of their incomes.[1035] U.S. citizens, resident alien individuals, and domestic corporations are subject to U.S. federal income tax on their worldwide incomes — income both from sources within the United States ("U.S. source income") and income from sources without the United States ("foreign source income"). These taxpayers are generally concerned about source of income in the context of calculating a foreign tax credit, because generally only the U.S. tax imposed on *foreign* source taxable income is reduced by foreign tax credits. Sourcing principles may also be relevant for state tax purposes. Nonresident alien individuals and foreign corporations (and persons having the control, receipt, custody, disposal, or payment of gross income to nonresident alien individuals and foreign corporations) are generally concerned about the source of income because it is a key factor in determining whether such income will be subject to U.S. income tax.

Depending on an item of income's type, its source might be determined based on, among other things: (i) the situs of economic activity giving rise to the income; (ii) the residence of the taxpayer; (iii) the residence of the payer of the item; or (iv) the location of property giving rise to the income.[1036]

Commentary: Cryptocurrency and other digital asset transactions bring with them their own unique challenges, whether they relate to native, on-chain transactions, or new transaction types, such as staking or those that take place using a decentralized exchange. Given that these systems frequently operate in a pseudonymous manner, participants may lack any knowledge of the entity type, or location, of the parties with whom they are transacting. Given the collaborative and open nature of these public blockchains, the global infrastructure supporting the transactions can muddy the analysis of "where" the transfer of a digital asset from a seller to a buyer has occurred, or where services relating to digital asset transactions were performed.

2. Sourcing in General

Sourcing rules that may be relevant to transactions involving cryptocurrencies and other digital assets include the following:

- Interest is generally sourced based on the residence of the obligor (*e.g.,* interest on indebtedness of a noncorporate U.S. resident or a domestic corporation is generally considered U.S. source income).[1037]
- Compensation for labor or personal services is generally sourced based on the location of performance of the services.[1038]
- Rents or royalties from property located in the United States or from any interest in such property, including rentals or royalties for the use or for the privilege of using in the United States patents, copyrights, secret processes and formulas, goodwill, trademarks, trade brands, franchises, and other like property ("intangibles"), are U.S. source income.[1039]

[1032] Reg. §1.250(b)-4(d)(2)(iii)(B).

[1033] *See* Reg. §1.250(b)-3(f).

[1034] *See* Reg. §1.250(b)-4(d)(3)(iv).

[1035] As this Portfolio discusses the taxation of cryptocurrency transactions, an in-depth discussion of the sourcing rules is beyond the scope of this Portfolio. For an in-depth discussion of the source rules see 6620 T.M., *Source of Income Rules* (Foreign Income Series).

[1036] *See* §861–§865.

[1037] §861(a)(1), §862(a)(1).

[1038] §861(a)(3), §862(a)(3).

[1039] §861(a)(4). Rents or royalties from property without the United States or from any interest in such property, including rentals or royalties for the use or for the privilege of using without the United States patents, copyrights, secret processes and formulas, goodwill, trademarks, trade brands, franchises, and other like property, are foreign source income. §862(a)(4).

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• Income from the sale of personal property is generally sourced under §865 based on the residence of the seller (or where the seller is a partnership, based on the residence of the partners).[1040] But exceptions to this general rule apply to sales of inventory property and intangibles (among other types of property) and sales of any type of property through an office or other fixed place of business outside the taxpayer's country of residence.[1041]

o Gains, profits, and income derived from the purchase of inventory property without the United States (other than within a possession of the United States) and its sale or exchange within the United States are U.S. source income.[1042] Gain on the sale of inventory produced in whole or in part by the taxpayer is generally sourced based on the location of production activities with respect to the property.[1043]

o Gain on the sale of an intangible, to the extent payment is contingent on productivity, use, or disposition of the intangible, is sourced in the same manner as royalties, which are sourced by place of use.[1044] To the extent payment is not so contingent, gain on the sale of most of the types of intangible property listed above (in excess of amortization taken, if any) is sourced based on the residence of the taxpayer.[1045]

o If a nonresident (e.g., a foreign corporation or a nonresident alien individual) maintains an office or other fixed place of business in the United States, income from any sale of personal property (other than inventory property sold for use, disposition, or consumption outside the United States where an office or other fixed place of business of the taxpayer in a foreign country materially participated in the sale) is U.S. source if attributable to such office or other fixed place of business.[1046] Conversely, if a *U.S.* resident maintains an office or other fixed place of business in a *foreign* country, income from any sale of personal property attributable to such office or other fixed place of business is *foreign* source if an income tax equal to at least 10% of the income from the sale is actually paid to a foreign country with respect to the income.[1047]

With respect to transactions involving computer programs, income from the transfer of a copyright right is characterized either as income from the sale or exchange of such right or as a royalty from the license of the right.[1048] Income from the transfer of a copyrighted article is characterized either as gain from the sale or exchange of such article or as rent from the lease of the article.[1049] The IRS has addressed how the sourcing rules under §861 pertaining to transactions involving cloud computing may provide that a cloud transaction would be classified solely as either a lease of computer hardware, digital content, or other similar resources, or the provision of services, taking into account all relevant factors. For further discussion of classifying cloud transactions, see 6620 T.M., *Source of Income Rules* (Foreign Income Series).

a. Sourcing Considerations for Common Digital Asset Transactions

As a new and evolving area of business, the sourcing of income from digital transactions can be less than clear. Sourcing is particularly important when the income is paid or accrued to a foreign person, as it is a key factor in determining whether such income could constitute ECI (and be subject to net-basis U.S. income tax) or if not, and the income is FDAP, determining whether it is subject to gross-basis U.S. income tax, on which the payer (or any other person having the control, receipt, custody, disposal of the income) has a U.S. tax withholding obligation.

Commentary: One of the fundamental characteristics of crypto-enabled technology is the ability to operate anonymously and transact through blockchains without the need to set up a bank account or go through other financial gatekeepers. This feature, an attraction for many users, often makes it difficult or impossible to determine the counterparty to any transaction performed through a decentralized finance protocol. Additionally, there could be multiple counterparties to one transaction, each as unidentifiable as the next. Due to the element of anonymity, it may be hard to determine the source of income from a transaction, even after the character of the income has been determined.

While complete anonymity is unlikely to be guaranteed by any cryptocurrency, especially with platforms that perform know-your-customer (KYC) processes on their clients, crypto trades are typically not linked directly to an identity or an internet protocol (IP) address. Even with an IP address, due to the common use of virtual private network (VPN) services, especially among those who chose to transact in crypto because of the anonymity it affords, there may be reason to believe that the IP address is not sufficiently reliable to identify the location of the counterparty.

(1) Dispositions of Cryptocurrencies

It has become commonplace today for cryptocurrencies, such as Bitcoin or Ethereum, to be used as payment in transac-

[1040] §865(a).

[1041] *See* §865(b), §865(d), §865(e).

[1042] §861(a)(6). Gains, profits, and income derived from the purchase of inventory property within the United States and its sale or exchange without the United States are foreign source income. §862(a)(6).

[1043] §863(b) (flush language).

[1044] §865(d)(1)(B), §861(a)(4), §862(a)(4).

[1045] §865(a), §865(d)(1)(A), §865(d)(4).

[1046] §865(e)(2).

[1047] §865(e)(1).

[1048] Reg. §1.861-18(f)(1). With respect to computer programs, copyright rights refer to one or more of the following rights: (i) the right to make copies of the computer program for purposes of distribution to the public by sale or other transfer of ownership, or by rental, lease, or lending; (ii) the right to prepare derivative computer programs based upon the copyrighted computer program; (iii) the right to make a public performance of the computer program; or (iv) the right to publicly display the computer program. Reg. §1.861-18(c)(2)(i) – §1.861-18(c)(2)(iv).

[1049] *See* Reg. §1.861-18(f)(2). Copyrighted articles are defined to include "a copy of a computer program from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." Reg. §1.861-18(c)(3). Reflecting the 1998 vintage of Reg. §1.861-18, the regulations also provides: "The copy of the program may be fixed in the magnetic medium of a floppy disk, or in the main memory or hard drive of a computer, or in any other medium." Reg. §1.861-18(c)(3).

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tions, as well as being traded on exchanges. As there was historically a fundamental question as to the nature of a cryptocurrency (e.g., Is it property, is it treated as currency?), as stated in III., above, the IRS provided in Notice 2014-21 that "virtual currency" (defined as a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value) is treated as property for federal tax purposes. The notice further provided that the disposition of virtual currency generates taxable gains or losses.

Based on the characterization in Notice 2014-21, income from the disposition of cryptocurrency or other digital assets may properly be sourced under the rules for sourcing income from the sale or exchange of personal property. It is critical, however, to understand the character of the cryptocurrency or other digital asset in the hands of the selling taxpayer, as that character may determine which specific personal property gain sourcing rule applies. In general, §865(a) provides that income from the sale of personal property is sourced based on the residence of the seller (or where the seller is a partnership, based on the residence of the partners).[1050] However, this result may change if the personal property at issue is inventory property or an intangible or is sold through an office or other fixed place of business outside the residence country of the taxpayer.[1051]

For example, if the cryptocurrency or other digital assets constitute inventory property of the seller, or property held for sale to customers in the ordinary course of the seller's business, the residence of seller rule would not apply.[1052] Instead, the applicable sourcing rule depends on whether the seller produced the cryptocurrency or other digital asset.

- If the taxpayer did not produce the cryptocurrency or other digital asset, the income from the sale is sourced based on the "place where[] the rights, title, and interest of the seller in the property are transferred to the buyer" (commonly called "the title passage rule").[1053]
- Where the property is produced by the taxpayer, the country of production is generally the relevant source country (e.g., income from the sale of property produced by the taxpayer in the United States and sold outside the United States is generally U.S. source income).[1054]

Commentary: With respect to cryptocurrencies and other digital assets, it can be a challenge to determine and document the place of production of the property, and where the rights, title, and interest in the property were transferred. For example, is it produced in the place where the code to mint a token or NFT is deployed? Is it sold where the sender signs a transaction or where the recipient is located at that time, or should one consider the network of nodes that record the transaction to determine where the rights, title, and interest were transferred? The existing source rules do not provide obvious locations with respect to digital assets; however, the Treasury Department and the IRS have addressed how the sourcing rules may provide guidance on locations regarding cloud transactions involving the transfer of digital content.[1055]

Additionally, if a nonresident alien individual or foreign corporation maintains an office or other fixed place of business in the United States, income from the sale of cryptocurrency or other digital assets (other than inventory property sold for use, disposition, or consumption outside the United States where an office or other fixed place of business of the taxpayer in a foreign country materially participated in the sale), is U.S. source income if the sale is attributable to such office or other fixed place of business.[1056] Conversely, if a U.S. person maintains an office or other fixed place of business in a *foreign* country, income from any sale of cryptocurrency or other digital assets attributable to such office or other fixed place of business is *foreign* source if an income tax equal to at least 10% of the income from the sale is actually paid to a foreign country with respect to the income.[1057]

(2) Transactions in Nonfungible Tokens (NFTs)

An NFT is a digital certificate in the form of a unique token that is stored on a blockchain. There are many uses and implementations of NFTs. However, recent popular implementations of the technology relate to music and images. An NFT is "nonfungible" because the metadata associated with it cannot be replicated.[1058]

Given the breadth of the market and offerings related to NFTs, it is important to analyze the specific technological characteristics of each NFT, its rights and obligations, how it is used by the taxpayer, and how it is exchanged or transferred to end users, to make an appropriate assessment of the character and sourcing that may be applicable to a creator, investor, trader, or dealer.

Consider the following differences in sourcing depending on the nature of the NFT and the taxpayer:

- Where an NFT is viewed as *inventory* of a taxpayer, it is necessary to consider whether the taxpayer "produced" (e.g., minted) the NFT within the meaning of §863(b). To the extent it could be treated as produced by the taxpayer, the place of production would generally be the relevant source. If the NFT is not treated as produced by the taxpayer, the title passage rule is generally applicable for

[1050] §865(i)(5).

[1051] §865(b) (providing that the sourcing rules of §865 do not apply to source income from sale of inventory property, and that such income shall be sourced pursuant to §861(a)(6), §862(a)(6), or §863, as applicable), §865(d)(1) (providing that, with respect to sales of intangibles, §865 applies "only to the extent payments in considerations for such sale are not contingent on the productivity, use, or disposition of the intangible, and … to the extent such payments are so contingent, the source of such payments shall be determined under this part in the same manner as if such payments were royalties"), §865(e) (providing special sourcing rules to income from sales of personal property that are attributable to an office or other fixed place of business outside the taxpayer's residence country).

[1052] §865(b).

[1053] *See* Reg. §1.861-7(c).

[1054] §863(b). Notwithstanding the general rule, gross income, gain, or loss from a sale of inventory property by a nonresident (other than property sold for use, disposition, or consumption outside the United States if an office or other fixed place of business of the nonresident in a foreign country materially participates in the sale) that is attributable to an office or other fixed place of business in the United States is U.S. source income, to the extent the gross income, gain, or loss is properly allocable to the office or other fixed place of business. Reg. §1.865-3(a), second sentence.

[1055] For further discussion of guidance from the Treasury Department on the sourcing rules with respect to cloud computing, see 6620 T.M., *Source of Income Rules* (Foreign Income Series).

[1056] §865(e)(2); Reg. §1.865-3(a).

[1057] §865(e)(1).

[1058] *See* II.B.5., above.

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sourcing purposes.[1059] In either circumstance, however, if the taxpayer is foreign and maintains an office or other fixed place of business in the United States, all or part of the income from the sale of the NFT could possibly be treated as U.S. source income.

• Where an NFT is viewed as *noninventory personal property*, the residence of the seller might generally determine the source of gain on its sale.[1060] However, if an NFT is intangible property for §865 purposes, payments in consideration of its sale may be subject to the special sourcing rules for sales of intangibles. Under those rules, to the extent payments are contingent on the productivity, use, or disposition of the NFT, the source of the payments is determined in the same manner as if they were royalties.[1061]

• Where an NFT is sold on a marketplace and the marketplace facilitator receives a commission or fee (for facilitating the sale or a future sale of the NFT), the character of the income might most closely resemble compensation for the performance of personal services. In such case, the income would be sourced based on the location where marketplace facilitation services are performed.

• In addition to commissions or fees earned by the NFT marketplace facilitator, a frequent ongoing revenue source for the creator, or current owner/manager of an NFT project, may also be a portion of secondary market proceeds. Although referred to as a "royalty" colloquially, it might not be best viewed as compensation for use of a right inherent in intellectual property. Typically, the recipient of this fee derives it under an agreement with a marketplace, for the performance of on-chain actions to establish the specific NFT collection on a marketplace, directing the fee to a designated wallet address. "Royalty free" NFT marketplaces, and potential paths to require on-chain enforcement of creator "royalty" fees, has been a recent topic of debate. As of now, these fees would generally be viewed as compensation for services, similar to the marketplace fees described above.

(3) Staking Rewards

(a) In General

One of the common activities in which owners of cryptocurrencies participate is the "staking" of their cryptocurrencies to earn a return, which is generally in the form of additional tokens or coins. Staking requires cryptocurrency owners to "stake" their coins (i.e., to lock their tokens for a fixed period of time when the users cannot withdraw their assets, in exchange for a percentage-rate reward over the period). There are two ways that owners stake their coins, either directly as validators, or indirectly as delegators. In the context of a proof-of-stake (POS) network, where sufficient crypto is staked, the owner may also become a validator and operate its own node. A small subset of validators engage other node operators to run private nodes that only stake their crypto. Delegators, on the other hand, stake their crypto to public nodes and receive rewards (often newly created property) less commission fees charged by the node operators.[1062]

As the term "staking" can be used broadly, it is important to understand the exact nature of the transaction, the role of the parties involved, and what is received in return. The term staking is also used interchangeably for other forms of transaction that require the holder to lock his or her property in a smart contract to receive an allocation of tokens. For purposes of this Portfolio, we define these other forms of staking as "yield farming." Two prevalent sources of yield farming rewards are:

• returns generated as a result of programmatically allocating the "staked" assets to various DeFi constructs in a trading strategy; or

• payments from the creator of a token or an associated DAO (see VII.H., above) as incentive to hold or fund a DEX liquidity pool with the token.

This subsection will strictly address rewards associated with staking to support the validator node infrastructure of a Layer 1 proof-of-stake blockchain.[1063]

(b) Character and Source

The IRS recently provided guidance in Rev. Rul. 2023-14 with respect to treatment of staking rewards.[1064] If staking rewards *are* treated as income, the character and sourcing rules would need to be applied in order to determine the U.S. tax consequences of their payment and receipt.

Commentary: One possible perspective is that staking rewards are analogous to compensation for personal services. However, delegation arrangements, where the owner of proof-of-stake cryptocurrency delegates the cryptocurrency to a third-party validator for validation, usually involve the owner of the cryptocurrency receiving some portion of the staking reward. Therefore, some portion of staking rewards (the portion treated as paid to the owner of the cryptocurrency in the case of a delegation arrangement) could be classified as a type of income from property (such as rents or royalties).

Commentary: If staking rewards are classified as compensation for services, and as (or as analogous to) compensation for "labor or personal" services, then such income should be sourced at the location where the services are performed.[1065] However, implementing this approach would require both taxpayers and withholding agents to make difficult and highly factual determinations regarding the location *where* the validator "performs" the validation. While validation is mostly an automated computational process that operates on servers, human support personnel may also be necessary to ensure that the servers and software run effectively. This raises the question of whether the location of the validation should be considered the location of the servers or the location of the support personnel, and where they differ, whether the source of the income should be bifurcated in some manner between the two.

[1059] To the extent the sale of an NFT is viewed as the transfer of a copyrighted article, see 6620 T.M., *Source of Income Rules,* discussing determining the location of sale.

[1060] *See* §865(a).

[1061] §865(d)(1)(B).

[1062] *See* VII.C., above.

[1063] For a discussion on how staking applies to yield farming, see IX.D.2.(3)(b), below.

[1064] *See* III.K., above.

[1065] *See* §861(a)(3), §862(a)(3).

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Commentary: Another potential approach to sourcing staking rewards for tax purposes would be to draw an analogy to income from property such as rents or royalties for the use of intangible property (i.e., the staking rights). Rents of tangible property are generally sourced where the property is located, and rents and royalties from intangibles are generally sourced in the location where the intangible property is "used."[1066] This approach presents its own set of challenges. One of the most significant hurdles is that the place of use of staking rights could be indeterminate, as the payer might be an open-source software protocol that lacks a tax residence and is not geographically limited to any specific jurisdiction. Arguably, software cannot be a payer, in which case one might query whether the payer could be the nodes supporting the network, or the whole user base of the network, both of which would be hard if not impossible, to pigeonhole into a specific jurisdiction. It may be difficult to establish the location of the property, or the location at which "use" of the property was authorized in exchange for the payment.

Delegation arrangements provide their own set of complexities. The facts and circumstances regarding each particular delegation arrangement must be analyzed to determine whether the validator is simply providing a service (as an agent of the owner of the cryptocurrency), or whether the transaction is more appropriately viewed as a lease or license of staking rights to the validator.[1067] If the transaction is viewed as a lease or license agreement, the portion of the staking rewards paid to the owner could be considered a rent or royalty and sourced to the location where the intangible property is used by the validator.[1068] On the other hand, if the delegation arrangement is viewed as a service agreement, with the validator providing services to the owner, then the staking rewards would be sourced at the location where the validator performs the services.

The characterization of the transaction as either a license or the provision of services can have significant tax implications for the parties involved. Determining the location of either use *or* performance can be complex and may require highly factual and potentially difficult determinations.

(4) Mining Rewards

Cryptocurrencies may be generated through a process of "mining." At a high level, mining is a process whereby "miners" are rewarded with newly minted coins for verifying and processing transactions on the cryptocurrency blockchain. Crypto mining is fundamental to proof-of-work (POW) cryptocurrencies like Bitcoin.[1069] Similar to staking, crypto mining involves validating transactions and achieving consensus for the decentralized network. Crypto miners use "hash power" on their hardware to add new blocks to the blockchain. Such miners would be performing tasks to solve complex puzzles for "the hash," thereby "securing the network."

Also similar to the staking discussion above, if one assumes that cryptocurrency rewards are income, the character and sourcing rules would need to be applied in order to determine the U.S. tax consequences of their payment and receipt. Considering all the types of income listed in §861 through §865, it is possible that the type most analogous to income from mining is compensation for labor or personal services. If so, the source of mining rewards would be based on the location where the services are performed.[1070] Taxpayers likely face challenges in determining the location where "mining" services are performed similar to those encountered in determining the location where staking services are performed. Although it is easy to pinpoint where a miner's hardware is operating — is this the place of performance of services, or is it at the location of the transacting parties within a block of transactions, who benefit from the provision of these services.

(5) Other Transactions Involving Cryptocurrency or Other Digital Assets

(a) Forks

A "fork" generally refers to a software or protocol.[1071] To determine whether a fork has tax consequences, it is necessary to determine the nature of what has occurred. In certain "hard" forks, additional digital assets are created at the time of the fork.[1072] It is then necessary to consider what the additional digital assets represent in the hands of the taxpayer that receives them. The taxpayer may not need to perform any services to receive the additional digital assets, but limited actions may be required to claim or secure them. In Rev. Rul. 2019-24, the IRS ruled that a taxpayer has gross income, ordinary in character, at the time it obtains "dominion and control" of the additional digital asset(s). Its source likely must be determined by analogy. Some might argue that the income is analogous to a "prize" as defined in the regulations under §74, which the regulations generally source at the residence of the payer.[1073] Alternatively, some might argue that the better analogy for this accession to wealth is to income from property, and under appropriate circumstances income from a hard fork should be sourced at the residence of the taxpayer.

[1066] *See* §861(a)(4), §862(a)(4).

[1067] To the extent the cryptocurrency tokens owned by the delegator are treated as copyrighted articles within the meaning of Reg. §1.861-18(c)(3), the transfer of solely the staking rights associated with such tokens may be insufficient to cause the benefits and burdens of ownership with respect to tokens to be transferred to the validator. In such case, the transfer of staking rights could be treated as a lease of a copyrighted article generating rental income pursuant to Reg. §1.861-18(f)(2).

[1068] *See* §861(a)(4), §862(a)(4).

[1069] See VII.B, above, for additional background on mining.

[1070] *See* §861(a)(3), §862(a)(3).

[1071] *See* VII.A., above.

[1072] See VII.A.2., above, for a discussion about hard forks.

[1073] Reg. §1.863-1(d)(2). There is no statutory source rule for prizes. The regulatory source rule for prizes was promulgated in 1995. *See* TD 8615, 60 Fed. Reg. 44,274 (Aug. 25, 1995). It reflects the source rule announced in Rev. Rul. 89-67 with modifications.

Interestingly, the 1989 ruling (issued at a time when no Code *or* regulatory provision dealt with this type of income) did *not* mention the concept of sourcing "by analogy." Rev. Rul. 89-67 revoked Rev. Rul. 66-291 (which dealt with contest prizes, including prizes in puzzle contests) and Rev. Rul. 66-292 (which dealt with a research stipend, not in exchange for any services, from an educational and cultural foundation or commission). Rev. Rul. 89-67 faulted the 1966 rulings, and justified its own result, not on a "closer analogy" rationale, but rather on a "closer-economic-nexus" rationale: "It is more appropriate to source these payments at the residence of the payor, where the principal *economic* nexus with the payments exists, than [as under Rev. Ruls. 66-291 and 66-292] at the place where the study and research and puzzle solving activities are performed, where the *economic* nexus is less significant" (emphasis added).

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E. Transfer Pricing

1. General Regulatory Ecosystem

Transfer pricing refers to the determination of pricing for related-party transactions.[1074] No formal transfer pricing guidance specific to blockchain or digital assets has been issued in the United States or by the OECD. Very generally, in the United States, transfer pricing rules are based on the arm's-length principle under §482 and the OECD's *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*.[1075]

The existing transfer pricing framework contains fundamental principles that can be used to assess intercompany transactions in the blockchain space. As blockchain technology develops and expands throughout the globe, increasing consensus and implementation, so will the need for transfer pricing principles.

2. Control in a Blockchain Ecosystem

With respect to control in a blockchain ecosystem, start with a base case scenario. Consider a multinational in the technology space. In this multinational, let us assume that control over self-developed intangibles (e.g., patents, formulae, trademarks, methods, programs, systems)[1076] will fall to the related parties that constitute the enterprise.[1077] A transfer pricing analysis would typically involve an examination of intercompany agreements among the related parties, consideration of the resulting apportionment of risk, and a comparison of this information with observable economic conduct. Conclusions ultimately may be drawn based upon the resulting pattern of ownership over the intangible, control over business risks including intangible development, and the appropriateness of intercompany pricing, all within the boundaries of the multinational group under consideration.[1078] However, in a blockchain ecosystem, a transfer practicing practitioner may find that: (i) control over certain aspects of intangible development falls to participants ostensibly independent of the enterprise; (ii) an ecosystem's intangible portfolio may be commingled with external contributions with no discernible contractual backdrop; and (iii) these supposedly independent or unaffiliated participants may nevertheless actually hold some measure of control over business risk. Accordingly, any transfer pricing analysis will have to consider many different factors pertaining to control or influence – including the degree of influence, control, and ownership sitting outside an ecosystem, and a reasonable starting point will be understanding how freely independent agents can participate in the network: in other words, whether the blockchain ecosystem under consideration is permissioned or permissionless.

In the blockchain space, the terms "private" or "permissioned" and "public" or "permissionless" blockchains describe ecosystems with varying degrees of participation by parties outside of the enterprise.[1079] Permissioned blockchains refer to networks where specific rights are granted to authorized participants only, and typical use cases include back-office-type functionalities such as distributed ledgers to manage inventory and the supply chain.[1080] Permissioned blockchains would typically be found as an in-company back-office platform, and it would be natural to expect little to no impromptu participation from agents outside the enterprise. In this case, it is likely that control of intangible development will sit firmly within the enterprise, and any outside participation will be clearly defined through licensing or service contracts. In contrast, permissionless or "public" networks describe a blockchain where in general, any individual may join a network, operate a node, or contribute to the code and participate in the consensus process. Accordingly, a permissionless blockchain can give rise to scenarios where value drivers, technology, data, software code, or even ongoing functions of the ecosystem are controlled by individuals outside an enterprise.

In this regard, consider decentralized autonomous organizations (DAOs), which are ecosystems that highlight the challenges of control considerations in the blockchain space. DAOs are governance mechanisms whereby a group of individuals participates in the decision making of an ecosystem via rules that are deployed on a blockchain. These rules may be based on smart contracts and can be thought of as being self-executable – that is, once they are in place, they run independently of any set of individuals. Thus, a DAO could arguably be running independently of any human decision makers, with its algorithms, smart contracts, and rule sets running automatically. In this environment, traditional approaches to identify which party controls business risk, such as headcount, internal hierarchy, or reporting-line analysis, may no longer be as reliable if the decision making is performed independently of individuals, and when the DAO may function as a "set it and forget it" governance algorithm.[1081]

However, this does not mean that the control function within a DAO sits entirely outside the boundaries of the guidance provided by U.S. regulations. More specifically, Reg. §1.482-1(i)(4) defines the term "controlled" (as applicable across Reg. §1.482-1 through §1.482-9) as including:

> any kind of control, direct or indirect, whether legally enforceable or not, and however exercisable or exercised, including control resulting from the actions of two or more taxpayers acting in concert or with a common goal or purpose. It is the reality of the con-

[1074] For further analysis of transfer pricing rules see 6936 T.M., *Transfer Pricing OECD Transfer Pricing Guidelines* (Foreign Income Series), and 6900 T.M., *Transfer Pricing: The Code, the Regulations and Selected Case Law* (Foreign Income Series).

[1075] *See OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 2022*, OECD Publishing, Paris (2022); Reg. §1.482-1 – §1.482-9.

[1076] Third-party intangibles licensed from unrelated parties would not necessarily fall under the purview of §482 except in limited circumstances.

[1077] This does not mean that multinationals would not license outside technology or engage third-party service providers. But typically they would do so under clear third-party contractual relationships delineating who ultimately owns the intangibles derived from said services.

[1078] *See* §1.482-4(f)(3)(i)(A).

[1079] Certain sources draw a distinction between a permissioned versus a private blockchain, defining a permissioned blockchain as a hybrid of private and public blockchain.

[1080] *See How Walmart Brought Unprecedented Transparency to the Food Supply Chain with Hyperledger Fabric*, Hyperledger.

[1081] Even more critically, the individuals participating in the DAO may not be affiliated with the legal entity behind the blockchain ecosystem, implying that control over certain business risks may sit outside a company.

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trol that is decisive, not its form or the mode of its exercise.

Further, Reg. §1.482-1(i)(5) defines a controlled taxpayer as "any one of two or more taxpayers owned or controlled directly or indirectly (emphasis added) by the same interests.

Taken together, these two sections of the U.S. regulations may indicate that even a structure as decentralized and lacking in a traditional control structure as a DAO can be looked at through the existing regulatory framework. At first glance, Reg. §1.482-1(i)(4) defines control in a flexible enough manner to potentially encompass a DAO, given that it states that any kind of control, direct or indirect, is captured, and how that control is exercised is not necessarily relevant.

While, in a sense, blockchain environments can be governed by automated smart contracts, the design of the ecosystem will yield different answers in terms of which entity or entities bear risk, and this in turn will be associated with the functions they perform. For instance, in a DeFi or crypto exchange environment, questions may arise regarding whether an entity facilitates exchanging one type of cryptocurrency for another, if it needs to hold a certain balance of cryptocurrency, if it's engaged in payment settlement, or whether it simply exists as the holder of the dApp that facilitates peer-to-peer transactions.

3. Ownership in a Blockchain Ecosystem

Commentary: The development of a blockchain ecosystem may be the product of both an in-house software development entity, as well as multiple external individuals contributing a module or component to a larger platform, where the individuals themselves are not formally affiliated with an ecosystem (e.g., they are not employees). Multiple questions arise in such a scenario. What is a reasonable way to allocate value of the full platform to each individual contributor? How is the company engaging with each individual contributor, and can these transactions be considered reliably usable for a comparable uncontrolled price analysis? If individual contributors are compensated with the promise of future tokens, can the related party be compensated similarly? Is there a meaningful way of valuing individual software platform modules or lines of code?

As a first step, a practitioner would need to gather and consider the facts with respect to the definition of "controlled" posed in Reg. §1.482-1(i)(4): Can it be reasonably concluded (or not) that the participants in a collective effort to develop a blockchain platform are engaged in some form of controlled transaction, to the extent that they are "acting in concert or with a common goal or purpose?" This determination might need to be analyzed in concert with the "reality of control" meaning in this case, such as possibly asking: How much can this loose coalition of individuals, through a set of automated algorithms (or voting rights exercised through holding governance tokens) truly determine the direction of the development of a platform or make decisions related to the business risks of the blockchain ecosystem?"

The next step might be to outline the full (expected) map of transactions within the ecosystem and determine whether and how subsequent activities by the participating individuals contribute to the value of the blockchain assets, following the principles in Reg. §1.482-4(f)(3) and Reg. §1.482-4(f)(4).

Commentary: The very challenges presented by this space in fact heighten the importance of traditional aspects of the practice of transfer pricing. For instance, while examples 1 and 2 found in Reg. §1.482-4(f)(3) and examples 1–6 of Reg. §1.482-4(f)(4) might not readily fit the reality of a potential group of a hundred apparently unrelated individual developers, each contributing only a fraction of an intangible asset, Reg. §1.482-4(f)(3)(i)(A) highlights the need for thoughtfully written contracts, by emphasizing the relevance of the contractual terms governing the development of the intangible, indicating that the taxpayer might need to consider Reg. §1.482-1(d)(3)(ii)(B) to review contractual terms to determine ownership. Should contracts be absent, the U.S. Regulations state that:

> If no owner of the respective intangible property is identified under the intellectual property law of the relevant jurisdiction, or pursuant to contractual terms (including terms imputed pursuant to Reg. §1.482-1(d)(3)(ii)(B)) or other legal provision, then the controlled taxpayer who has control of the intangible property, based on all the facts and circumstances, will be considered the sole owner of the intangible property for purposes of this section.[1082]

This demonstrates the importance of establishing contracts setting forth clear terms and conditions because in the absence of such contracts the government might impute a contract with terms different than what the parties intended, leading to potential disputes.

4. Digital Assets and Trade in a Blockchain Ecosystem

In a press release, the White House noted that the market for digital assets reached a market capitalization of three trillion dollars.[1083] Not surprisingly, blockchain and traditional technology companies may find themselves engaged in controlled or uncontrolled transfers of cryptocurrency, tokens, or NFTs, and with the need to do so across international borders. Like the considerations of control and ownership, the analysis of these transactions could possibly be conducted within the framework of the current U.S. Regulations and OECD Guidelines.

Following Reg. §1.482-4(d)(1), the arm's-length pricing of such transactions, regardless of the specific method used, should take into account that uncontrolled taxpayers would evaluate a transaction considering their realistic alternatives available to them.[1084] For example, Reg. §1.482-4(d)(1) notes that "the [comparable uncontrolled transaction (CUT)] method compares a controlled transaction to similar uncontrolled transactions to provide a direct estimate of the price the parties

[1082] Reg. §1.482-4(f)(3)(i)(A).

[1083] The White House, *FACT SHEET: White House Releases First-Ever Comprehensive Framework for Responsible Development of Digital Assets* (Sept. 16, 2022).

[1084] While the analysis presented in this section focuses on a specific application of the CUT method, the most appropriate method and its application will be highly contingent on facts and circumstances, and there are multiple other methods that can be found to be more reliable depending on the specifics of the case under consideration. Very generally, transfer pricing methods are divided into two broad categories: (i) traditional transaction methods; and (ii) transactional-profit methods. Traditional transaction methods strive to assess an arm's-length price by evaluating terms and conditions of specific uncontrolled transactions that are comparable to what is the controlled ones under review and include the CUT method, among others. *See* Reg. §1.482-4(c).

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would have agreed to had they resorted directly to a market alternative."

Commentary: Under a specific set of circumstances, and taking care to address the comparability factors listed under Reg. §1.482-4(c)(2)(iii), the transfer price associated with a transfer of tokens or cryptocurrency may be determined by relying on the CUT method under Reg. §1.482-4(c), using observable market transactions that occur on cryptocurrency and token exchanges.[1085] This application of the CUT method might reliably be conducted when there are public observations, and critically, when the tokens involved in the controlled and uncontrolled transactions are indistinguishable from each other, or are, in other words, fungible.[1086] NFTs, on the other hand, present a different analytical challenge. Whereas the value of tokens or cryptocurrency depends on their perceived usefulness as "digital currency," for NFTs, the value proposition resides on the specific content or rights embedded in the tokens, which is what makes these NFTs are in fact, nonfungible. The rights embedded in an NFT may be related to artwork, collectibles, gaming assets, and accordingly may have a value "through the use or subsequent transfer of the intangible."[1087] Alternatively, the rights and content embedded in the NFT may be related to highly idiosyncratic information or data such as individual private information or cargo data related to a shipment of goods, which may not necessarily have a secondary resale value. Accordingly, when analyzing transfers of NFTs, the comparability factors listed in Reg. §1.482-4(c)(2)(iii)(A) and §1.482-4(c)(2)(iii)(B) may be taken into consideration, with the core awareness that, if possible, intangibles being compared would be more reliable if used in connection with similar products or processes within the same general industry or market and have similar profit potential.

Commentary: It is also important to draw a distinction between the sale or transfer of digital assets, versus the transfer of rights associated with issuing or holding such assets.[1088] The sale or transfer of an existing inventory of tokens or NFTs is different from the transfer of rights of issuance or performing a routine function such as holding or exchanging said tokens. The latter types of transaction require a clear understanding of the rights under consideration: private versus public issuance, single issuance versus multiple rounds, evolving content associated with NFTs, etc., which again, calls upon the core principles of Reg. §1.482-1(d), and specifically of contractual considerations as highlighted in Reg. §1.482-1(d)(3)(ii).

5. Transfer Pricing and Compliance

Commentary: One of the advantages of blockchain technology is the ability to provide tax authorities a more reliable audit trail. By leveraging the blockchain technology's distributed ledger, it would facilitate tracking related-party transaction(s) (where it originated, how it occurred, and the terms underlying the occurrence) with more accuracy. Additionally, the technology would provide insights and visibility into the development, improvement, maintenance, protection, and use of intangibles by securing a trail for its location(s) of value creation. Lastly, blockchain has the promise to provide assistance with transfer pricing documentation and accounting records, which could reduce compliance and diminish audit risks in the future.

6. Commentary

As noted, in the absence of specific transfer pricing guidelines, and in the presence of highly idiosyncratic fact patterns associated with specific blockchain ecosystems, a practitioner must thoughtfully go back to the foundational principles of transfer pricing regulations, and carefully assess facts and circumstances.

Take for instance the six steps outlined in the OECD Guidelines to identify a potential arm's-length price associated to an intercompany transaction involving an intangible.[1089] In the blockchain space, the identification of intangibles transferred would now require an understanding of the intangibles generated by participants outside an enterprise and how they interact with the ecosystem: Are outside contributors focused solely on dApps operating in the blockchain, or have they helped develop and continuously update the overall platform? Are there thoughtfully written contractual arrangements governing the relationships with outside parties? Has there been a thorough mapping of functions and risks across all relevant participants in an ecosystem, whether internal or external, and is there a clear understanding of which parties control outsourced functions and control specific economically significant risks? And are these functions and risks correctly formalized through contracts in a way that aligns with the economic substance of the transaction?[1090] Until further specific guidance or case law arises, the existing framework may be a sufficient guide for a practitioner through this new space.

[1085] One of the key assumptions here is that the token or cryptocurrency under consideration is available for public trade, that there is a sufficiently large number of transactions that could be used reliably as a CUT, and that the controlled transaction's terms and conditions can be reliably compared to the uncontrolled transactions observed in the market.

[1086] Even then, a practitioner may carefully consider comparability factors under Reg. §1.482-1(d)(3), as contractual arrangements and economic circumstances may require an adjustment of the raw token prices observed in exchanges.

[1087] *See* §1.482-4(c)(2)(iii)(B)(1)(ii).

[1088] To draw an analogy to the analogue world, this would be the difference between transferring widgets versus transferring make-and-sale rights for said widgets.

[1089] OECD Guidelines 6.34. For further discussion of the OECD Guidelines, see 6940 T.M., *Transfer Pricing: Rules and Practice in Selected Countries (A–B)* (Foreign Income Series).

[1090] *See* Reg. §1.482-1(d)(3)(ii).

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X. State Taxation

A. *Introduction*

Blockchain and cryptocurrencies have grown in popularity in recent years. These emerging technologies have had an exponential climb to their current role as featured topics in technology, financial, and business news headlines. Along the way, companies across various industries have started to invest heavily in cryptocurrencies and blockchain technology, and marketplaces have been created worldwide with little regulation and oversight. An entire ecosystem of observers, investors, exchanges, regulators, and technology services has spawned through the increased interest and use of cryptocurrencies and blockchain technologies. This interest and use of cryptocurrencies and blockchain raise significant state and local tax issues across a range of taxes, including corporate income and franchise, sales and use, and gross receipts taxes. However, the interest in and use of cryptocurrencies and blockchain have outpaced federal and state government responses. Consequently, guidance regarding the tax treatment of cryptocurrency and blockchain is much needed in an uncertain environment for taxpayers to navigate.

This chapter will provide insight into the blockchain technology and cryptocurrency landscape and outline some potential tax challenges that may arise at the state tax level. See the Worksheets below for the Glossary of Terms.

B. *General State Tax Issues Surrounding Cryptocurrency/ Digital Assets*

The lack of specific state guidance on the tax treatment of cryptocurrencies does not mean that states are not attempting to tax these assets or the transactions involving cryptocurrencies. States that have not yet adopted crypto-specific tax laws or regulations may simply attempt to apply their current rules to this new digital medium, similar to how many jurisdictions have responded to taxing internet-based transactions and digital goods. Therefore, taxpayers may face issues involving corporate income taxes, gross receipts taxes, state and local payroll taxes, and beyond. The list of issues discussed below is not intended to be exhaustive, but merely to highlight some of those issues that have come to the forefront of state tax discussions, so far.

1. Nexus

A threshold consideration for every company is whether "nexus" has been established between the taxpayer and a particular taxing jurisdiction — i.e., whether the taxpayer has engaged in sufficient business activity in the state to be subject to its taxing authority. Absent nexus, a state lacks the authority to impose a tax on the business.

Businesses in the cryptocurrency space may face unique nexus challenges. In the most obvious example, a taxpayer engaged in a business activity involving cryptocurrency or blockchain technology may have a physical presence (e.g., office space, employees, etc.) sufficient to create nexus in one or several other states across the United States.[1091] However, under long-established precedent set by the United States Supreme Court, nexus may also be established where the taxpayer has an agent or an independent contractor working on the taxpayer's behalf.[1092] For example, a business may enter into a contract with a validator to act as a node and stake the tokens held by the business. If the contract between the business and the validator is sufficient to create an independent contractor or agency relationship, state and local governments could use this relationship to establish a taxable nexus with the business based solely on the operations of the validator. Likewise, if a contract between the business and a "miner" is sufficient to create an independent contractor or agency relationship, state and local governments could use this relationship to establish a taxable nexus with the business based solely on the operations of the miner. Nexus issues may also arise from traveling employees, the location of programmers, and the sales territory of the sales force.

Certain states have adopted statutory "factor-based" nexus tests where taxpayers that exceed certain thresholds (often based on the taxpayer's sales, property, and payroll factors) are considered to establish nexus.[1093] For example, corporations can be subject to a state's tax laws if they are "doing business" in that state. A corporation may be considered to be "doing business" in such state if itmeets any of the following: (i) it engages in any transaction for the purpose of financial gain within the state; (ii) it is organized or commercially domiciled in the state; or (iii) the corporation's state sales, property or payroll exceed a threshold amount. Based on the state's factors, the state can take the position that a cryptocurrency entity is subject to its tax laws. The state can impose a tax on cryptocurrency entities that it deems to be doing business in the state. Therefore, even if a crypto native company is not organized or commercially domiciled in the state, the company can still be doing business in that state if the company's sales, property, or payroll exceeds the threshold amount set by the state.

For detailed information concerning when a state has the authority to tax a corporate entity, see 1410 T.M., *Limitations on States' Jurisdiction to Impose Net Income Based Taxes* (State Tax Series). The *50 State Overview — Pass-Through Entities* Chart Builder covers whether the states impose a corporate income, franchise tax, or gross receipts tax on S corporations at the entity level (State Tax Series).

a. Public Law 86-272

The Interstate Commerce Act, commonly referred to as "Public Law 86-272" is a federal statute that creates an additional prohibition against a state from imposing its net income tax on an out-of-state corporation.[1094] Even though this provi-

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[1091] Importantly, while physical presence is normally sufficient to establish nexus, it is not always necessary. In the context of net income taxes, states have long applied economic nexus (that based on economic rather than physical ties to a state) to out-of-state taxpayers.

[1092] *See Tyler Pipe Indus. v. Wash. State Dep't of Revenue*, 483 U.S. 232 (1987); *Scripto, Inc. v. Carson*, 362 U.S. 207 (1960).

[1093] Factor nexus was first recommended by the Multistate Tax Commission (MTC), which initially approved a model factor nexus statute in 2002 which provided that a taxpayer has "substantial nexus" with a state if its in-state property, payroll, or sales meet one of the following tests: $50,000 of property; $50,000 of payroll; $500,000 of sales; or 25% of total property, payroll, or sales. *See* Multistate Tax Commission, *Factor Presence Nexus Standard for Business Activity Taxes* (Oct. 17, 2002).

[1094] Pub. L. No. 86-272. While Pub. L. No. 86-272 has been codified at 15 U.S.C. Secs. §381–§384, in common usage the provision is referred to as Pub. L. No. 86-272.

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sion is established by statute rather than the United States Constitution, this law supersedes all state taxing laws due to the Supremacy Clause of the United States Constitution. This prohibition applies even after a state may be able to assert nexus on an out-of-state seller of tangible personal property that is present in the state by its employees or independent contractors.

Under Pub. L. No. 86-272, a state is precluded from imposing a net income tax if the only activity within the state is the solicitation of orders of tangible personal property by employees or independent contractors or engaging in activities entirely ancillary to the solicitation of these orders (e.g., driving across the state to meet with potential customers). Generally, after the solicitation of orders, the orders must be sent outside the taxing state for approval and shipment. Pub. L. No. 86-272 only applies to the sale of tangible personal property and to taxes measured by net income.

The distinction between tangible and intangible property for Pub. L. No. 86-272 purposes highlights one of the key issues in the world of cryptocurrency and tokens: What is the "thing" being sold? A crypto token is a digital representation of an item, but depending on what that item is (e.g., stored value such as a stablecoin, the right to download a digital copy of a movie or song, an NFT, a ticket to a future entertainment event such as a concert or festival, etc.), a state may consider the token to be tangible personal property.[1095] Other tokens, such as a smart contract, an equity token related to the ownership of a business entity, or other tokens, may be considered by states to be either intangible property or even services. Accordingly, it is very possible that the sale of one type of token may be eligible for Pub. L. No. 86-272 protection but the sale of another token may not be eligible for that protection, depending solely on the nature of the particular token at issue.

Indirect tax nexus was reshaped in 2018 by the United States Supreme Court's *South Dakota v. Wayfair* decision,[1096] which likely has a big impact on taxpayers in the crypto space. For example, when a tokenized business launches a platform and issues a new token, the company may sell tokens to consumers or investors in different states across the United States. Depending on the nature of the tokens at issue and the relevant state laws, the sale of these tokens can be considered a service, an intangible, or an item of tangible personal property. Based on how a particular state sources the receipts generated by sales of the particular tokens at issue, the taxpayer may have a material amount of receipts derived from states for sales and use tax nexus purposes. Whereas before the case was decided physical presence was required in a state to establish nexus for sales and use tax purposes, after *Wayfair* the question became whether a taxpayer "avails itself of the substantial privilege of carrying on business" in a state.[1097] As a result, a company can trigger nexus through the sale of products (tangible or intangible) and services if it meets a state's dollar or transactional threshold, even without a physical presence. The economic nexus provisions and thresholds of states vary.

For further analysis of the various state economic nexus provisions, see the State Tax Nexus State Chart (State Tax Series) and for additional discussion of *Wayfair*, see 1420-3rd T.M., *Sales and Use Taxes: Limitations on States' Jurisdiction to Impose Sales and Use Taxes* (State Tax Series).

For further discussion of sales and use tax nexus generally, see 1420 T.M., *Limitations on States' Jurisdiction to Impose Sales and Use Taxes* (State Tax Series).

For further discussion of net income tax nexus, see 1410 T.M., *Limitations on States' Jurisdiction to Impose Net Income Based Taxes* (State Tax Series).

b. Gross Receipts Tax Nexus

Nexus questions concerning gross receipts tax ("GRT") deal with states imposing a tax on a business's gross receipts. Generally, GRT is imposed on a company's gross sales, without deductions for a firm's business expenses, like costs of goods sold and compensation. Instead of the tax being paid at the point of sale by a consumer, like a sales tax, the tax is typically imposed at each stage of the production process. Therefore, GRTs impose costs on consumers, workers, and shareholders alike, and a business dealing in the cryptocurrency space should be aware of the states that levy a GRT.

The rules for imposing a GRT, like income and sales and use taxes, vary depending on the state. Compared to other taxes, only some states require businesses to pay a GRT. Generally, the constitutional principles from *Wayfair* apply for GRT purposes. However, the states and local jurisdictions that impose a GRT have established by statute and rule varying nexus standards. These standards include requiring a physical presence in the jurisdiction or meeting and exceeding the jurisdiction's economic nexus threshold. Accordingly, businesses in the cryptocurrency space should not assume that a universal "gross receipts tax nexus standard" applies and, therefore, must closely review the standards used by specific jurisdictions.

For a discussion of GRTs throughout various states and each of those states' nexus standards, see State Pass-Through Entity Navigator (State Tax Series).

2. States' Anticipated Responses to Federal Tax Treatment of Digital Assets

As noted in III., above, the IRS has issued guidance on the federal tax treatment of digital assets, including virtual currency. In Notice 2014-21 the IRS acknowledges for the first time the taxability of digital assets as property rather than as a fiat currency such as the U.S. dollar or the euro. The notice provides that for federal tax purposes, the general tax principles applicable to property transactions apply to digital asset transactions. The IRS released a set of frequently asked questions (FAQs) that supplements Notice 2014-21 by providing examples of applying property tax principles to virtual currency transactions. In Rev. Rul. 2019-24, the IRS addresses common questions associated with the tax treatment of a cryptocurrency "hard fork" as well as an "airdrop." This guidance regarding hard forks and airdrops raises complex issues of state taxation, including the method of apportioning and sourcing taxable income, application of sales and use taxes, and state conformity

[1095] See II.B.2., above, for additional discussion on stablecoins.

[1096] *South Dakota v. Wayfair, Inc.*, 138 S. Ct. 2080 (2018).

[1097] 138 S. Ct. at 2099 (quoting *Polar Tankers Inc. v. City of Valdez*, 557 U.S. 1, 11 (2009)).

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to federal tax guidance that are beyond the scope of this Portfolio.[1098]

Commentary: While states may not automatically adopt the federal treatment outlined in Notice 2014-21, a state may view it as persuasive authority. However, at this point many states have yet to provide any guidance on the taxation of cryptocurrencies. And of the states that have addressed the issue, most consider virtual currencies to be intangible personal property, with very few considering them to be currency.[1099] Therefore, while the question remains as to how most states will consider virtual currencies; as property, currency, a security, or even a commodity, an increasing number of states are anticipated to treat cryptocurrency as property rather than currency, consistent to the federal treatment. Also, even though Notice 2014-21 was issued primarily within an income tax context, states are expected to adopt the federal treatment on the taxability of virtual currency for state tax purposes in general, including income/franchise tax, sales/use tax, and gross receipts tax.

3. Local Tax

Most U.S. cities and counties do not impose a local income tax. However, several local jurisdictions throughout the United States impose a local tax because it provides a significant source of revenue to that jurisdiction and pays for the protections and benefits of government. Therefore, for businesses in the cryptocurrency space, the business must be aware of all the jurisdictions it operates in, including local jurisdictions, and must conduct an analysis to determine where they have a filing obligation and where they must pay a tax.

C. State & Local Income Tax

1. Introduction

Taxpayers engaged in transactions involving blockchain technology or digital assets may be subject to corporate income or franchise taxes at the state and local level. Although state income taxes are generally based upon U.S. federal tax concepts, the underlying rules vary from state to state, and the laws, rules, and procedures relating to state corporate income taxes are not uniform among jurisdictions.

For a state[1100] to subject a corporation to tax, the corporation must have nexus with the jurisdiction.[1101] State nexus determinations are independent of federal income tax concepts such as permanent establishment and/or federal trade or business determinations. Once nexus is established, absent limited exceptions to state taxation, a state's determination of the taxable base (the total taxable income under state law) and the state's share of that income (the state's apportioned taxable income) then follow. Finally, the apportioned income is subject to state-specific tax rates to arrive at the state tax liability.

2. Corporate Filing Groups

State filing methodologies can often differ from federal filings. Many companies in the blockchain and digital asset industries leverage sophisticated planning that may include related domestic and foreign entities. Taxpayers need to pay close attention to the impact of these structures on state income tax filings to avoid unintended consequences. For example, a U.S. blockchain company that sets up a Cayman or Bahamas affiliate could find that the income of the foreign subsidiary could be wholly included in the tax base in a state, despite having reduced or no tax exposure for U.S. federal purposes. The following section will discuss the variety of ways that state tax filing groups could impact blockchain companies.

The federal corporate income tax return can generally be filed in one of two ways: as a return that includes a single corporation (and any disregarded entities owned by that corporation) or as a consolidated return that generally includes all domestic corporations that share greater than 80% common ownership. Many state and local corporate income taxes utilize a third potential group return: the combined return, which often has a lower common ownership percentage (e.g., 50%). State and local returns also rely heavily on the concept of whether the various business entities are engaged in a "unitary trade or business." State and local governments can have unique rules for including certain entities (including entities not organized in the United States) or excluding other entities from the consolidated or combined return. Therefore, the question of which entities should be included in a state corporate income tax return (or if the return should be filed including only a single corporation) is a critical question for state and local taxpayers. The answer to this question impacts all aspects of the return, including the starting point for calculating taxable income and how to apportion that income. For this reason, digital asset taxpayers, who are often incorporated/located in foreign (non-U.S.) jurisdictions and maintain limited operations in the United States, should closely consider entity formation, structure and planning when evaluating state and local income tax obligations.

Further, depending on the state and the taxpayer's particular facts and circumstances, a taxpayer may be required to file on a consolidated, combined, or separate company basis. Certain states also allow taxpayers to elect to file using one of these options.[1102] Although the states follow the same general principles for filing these different types of returns, the specific requirements for these returns vary from state to state and can contain very detailed requirements that are beyond the scope of this Portfolio.

For further discussion of corporate filing requirements, see 1130 T.M., *Consolidated Returns and Combined Reporting* (State Tax Series) and the State Corporate Income Tax Navigator (State Tax Series).

[1098] For further discussion of apportionment, see 1150 T.M., *Principles of Formulary Apportionment* (State Tax Series), and for further analysis of sales and use taxes, see 1300 T.M., *Sales and Use Taxes: General Principals* (State Tax Series).

[1099] For specific state issued guidance involving digital assets, see the State Sales & Use Tax Navigator (State Tax Series) and the Corporate Income Tax Navigator (State Tax Series).

[1100] The use of "state" within this Portfolio generally refers to both state and local jurisdictions unless noted otherwise.

[1101] *See National Bellas Hess v. Department of Revenue*, 386 U.S. 753, 756 (1967) (finding that there needed to be "some definite link, some minimum connection, between a state and the person, property or transaction it seeks to tax").

[1102] For specific states that allow certain taxpayers to elect to file consolidated returns, see the State Corporate Income Tax Navigator (State Tax Series).

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3. Pass-Through Tax Considerations

In addition to corporations investing in the digital asset economy, investors often use partnerships, S corporations, limited liability companies (LLCs) taxed as partnerships, and other pass-through investment vehicles to engage with cryptocurrencies and other digital assets. These entities are often collectively referred to as "pass-through entities." For federal tax purposes, owners of a pass-through entity receive "flow-through treatment" as the income is not subject to tax at the pass-through entity level and is instead taxed at the owner level.

Investment in the blockchain and digital asset space via pass-through entities has increased as more venture capital firms look to diversify investment portfolios. These investments bring new tax challenges to fund managers as well as individual investors in the funds. Careful consideration should be given to the impact of the entity type and various election options. Whether using a corporate investment vehicle or a pass-through entity, the variety of filing types, groups, and elections creates complex state and local tax questions for companies operating or investing in the blockchain and digital asset ecosystem.

For further discussion of pass-through tax considerations, see 1500 T.M., *State Taxation of Pass-Through Entities: General Principles* (State Tax Series).

4. Tax Base

Once blockchain and digital asset taxpayers navigate the complexity of determining which entities and individuals are paying state and local tax and in which jurisdictions, then they must determine the appropriate tax base. While the income tax base for most state and local taxing jurisdictions starts with federal taxable income, this is not always the case. For taxpayers in the blockchain and digital asset space, some of the most important differences between federal and state law are related to revenue recognition, basis calculations, certain TCJA provisions, and the treatment of activity as relating to business or nonbusiness operations.

For further discussion of the tax base for various states, see the State Corporate Income Tax Chart (State Tax Series).

5. Income Recognition & Basis Computation

For federal tax purposes, virtual currencies (including specifically Bitcoin) are treated as property subject to the "[g]eneral tax principles applicable to property transactions."[1103] This determination currently applies to many digital assets but may not encompass all cryptocurrencies given the nuanced characteristics of different digital assets. Sales of certain NFTs, for example, may have a royalty or service income component. Taxpayers must also determine whether sales of property generate ordinary or capital gain/loss. This creates ambiguity for both federal and state income tax purposes as states often conform to or otherwise align with federal classifications of income to determine state tax treatment. In addition to raising questions of income recognition and gain computation for federal and state tax purposes, state income tax issues such as apportionment and allocation of income are also presented. In every state, the characteristics of the item being sold and the nature of the transaction resulting in the generation of income are determinative of whether, and how, the income is taxed by a state.

In states that conform to §1011 and §1012, gain resulting from cryptocurrency transactions are expected to align with gains reported for federal income purposes. In states that decouple from these provisions, state-specific basis computations will govern the calculation of gain and taxable income amounts resulting from cryptocurrency transactions.

For capital-intensive businesses, such as crypto-mining operations, there may also be significant differences between the federal and state basis computations for real and tangible property. Federal deprecation rules such as bonus depreciation and depreciation of Qualified Improvement Property often accelerate depreciation expense for tax purposes.[1104] To the extent state and local jurisdictions decouple from §168(k) or §168(e)(3)(E)(vii), there may be significant differences in asset basis and corresponding gain or loss recognition when the mining equipment is disposed of or becomes obsolete.

For further discussion of state conformity with the Internal Revenue Code, see the IRC Conformity Tool (State Tax Series).

6. Business/Nonbusiness Implications & Entity Structure

In addition to differences between federal and state taxable income calculations, the state taxable income base from the sale of digital assets and cryptocurrencies and other revenue generated relating to services provided in the blockchain ecosystem may depend on the organizational structure of the taxpayer as well as the nature of the income-generating activity and character of the receipts. This is increasingly important as companies hold digital assets on the balance sheet. The income from these assets may be considered separate from the trade or business of the taxpayer, and therefore subject to special state rules. Variations to the taxable income base and state apportionable income will also depend on whether the state employs a "business" versus "nonbusiness" income distinction.

For example, a manufacturing company may decide to invest in cryptocurrency as part of its Treasury function. Is this investment part of its regular trade or business? Is the capital intended to support cash flow for operations? Or is this a long-term investment of excess capital that is intended for the mere financial betterment of the company? Taxpayers will need to answer these questions and others to determine whether the income is apportionable as business income or if it should be allocated as nonbusiness income.

For further discussion of business versus nonbusiness income, see 1140 T.M., *Income Taxes: The Distinction Between Business and Nonbusiness Income* (State Tax Series). For further analysis of entity structures, see the *State Tax Portfolios: Business Entities and Transactions* (State Tax Series).

[1103] Notice 2014-21.

[1104] *See* §168(e)(3)(E)(vii), §168(k).

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7. Apportionment & Sourcing of Sales Income

a. Introduction

As a very general rule, the United States Constitution requires that any state income tax imposed on multistate taxpayers be "fairly apportioned."[1105] While the concept may be simple, for companies that must apportion business income to states, there is significant complexity between the various rules and methodologies outlined by the states. Additionally, there are very few rules that directly address how to apportion some of the unique activities within the digital assets and blockchain industries. Apportionment formulas traditionally involved some combination of the taxpayer's property, payroll, and sales factors, and the recent trend among states is to adopt a single-sales factor apportionment formula.

For example, certain segments of the blockchain and digital asset ecosystem make significant use of capital assets that may be considered/included in a state's property factor. Accordingly, mining and staking operations currently rely on massive computing capabilities requiring significant capital investment; if these capital investments are placed in service in a state that apportions income using a property factor, these investments would generally result in increased apportionment to the state.

Furthermore, consider the material impact on a taxpayer's after-tax income in a single-factor state versus a three-factor state. For example, assume a mining company's net income is $1,000,000. Assume also that the sales factor is 10% and the payroll factor is 10%, while all of the mining assets are 100% in the state. In a single sales factor state, the apportioned income is 10% of $1,000,000, or $100,000. In a three-factor state, the apportionment factor is the average of all three factors, or 40%. As a result, $400,000 of income would be apportioned to the state. This could represent a material impact to the taxpayer's after-tax income, so taxpayers with significant capital expenditures should incorporate apportionment factor considerations into the site selection process.

With more states moving toward a single-factor apportionment, and all states including some variation of a sales factor within their apportionment formula, the following discussion provides that close consideration should be given to receipt classification, customer location, and the location where income-producing activities are performed by the taxpayer.

For further discussion of the property, payroll, and sales factors of an apportionment formula, see 1150 T.M., *Income Taxes: Principles of Formulary Apportionment* (State Tax Series) and the State Corporate Income Tax Navigator (State Tax Series).

b. Commentary on Receipt Classification

With respect to the composition of the sales factor, the source of a receipt will depend on receipt classification. For apportionment purposes, receipts are generally analyzed in the context of one of three categories:

- Sales of tangible personal property;
- Sales of services; and
- Sales of intangible property.

For the first category, tangible personal property (TPP), is typically sourced to where the property is delivered or where the customer takes receipt. Given that there is a lack of definitions for crypto-assets in most states, there is the possibility that some states could treat digital assets as TPP for apportionment purposes. Many states, for example, still define downloads of software as TPP for sales tax purposes. It is possible that individual states could interpret digital assets similarly.

With respect to sales of services, there are two primary camps where states fall. Many companies in the blockchain ecosystem provide supporting services to other blockchain-based organizations. These services may include protocol development services or level 2 add-ons to speed up transactions or add additional security layers to a blockchain. Mining and staking could also be interpreted as having a service component as miners/stakers provide validation services to the broader blockchain community. Understanding the services and how to source the associated revenue streams is vital to satisfy state and local reporting requirements.

The third category deals with sourcing rules for the sale of intangibles. Receipts from the sale or licensing of intangible property may be determined based on the location of use of the intangible property.[1106] States may use a hierarchy of tests to determine the location of the use, such as a cost of performance analysis.[1107] There are other states that may also use other methods to determine the source of receipts from the sale of intangibles, such as place-of-use sourcing, commercial domicile sourcing, and value accrued sourcing.[1108] States have published limited guidance on the classification of receipts from digital asset transactions, and as a result, it is unclear whether digital assets or tokens will necessarily qualify as an "intangible" for state tax purposes in a particular state. In addition to sourcing complexities, taxpayers must also consider whether receipts from intangibles are includable in the sales factor at all. The Multistate Tax Commission takes an even more narrow approach to sourcing income from intangibles, which is beyond the scope of this Portfolio, and is discussed in 1150 T.M., *Income Taxes: Principles of Formulary Apportionment* (State Tax Series).

The nature of the activities relating to the generation, recognition, or sale of cryptocurrency is also relevant. For instance, a reward from a proof-of-stake or proof-of-work, mining, barter exchange, or custody arrangement may be treated as service receipts, while the sale of a digital asset or participation in a DEX may be treated as a sale of an intangible or digital product.[1109] Income from other digital assets such

[1105] *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274 (1977).

[1106] For state-specific sourcing rules for receipts from the sale of intangible property, see the State Corporate Income Tax Navigator (State Tax Series).

[1107] For further discussion of the cost of performance analysis for intangibles, see 1150 T.M., *Income Taxes: Principles of Formulary Apportionment* (State Tax Series) and the State Corporate Income Tax Navigator (States Tax Series).

[1108] For further discussion of the various methods to determine the source of receipt from the sale of intangibles, see 1150 T.M., *Income Taxes: Principles of Formulary Apportionment* (State Tax Series) and the State Corporate Income Tax Navigator (States Tax Series).

[1109] For state-specific sourcing sales receipts rules, see the State Corporate Income Tax Navigator (State Tax Series).

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as NFTs may more closely resemble royalties or licensing arrangements. These different receipt classifications may result in vastly different state tax treatment, making the nature of the taxpayer activity, services provided, and type of reward critical in understanding the state income tax consequences.

c. Commentary on Reasonable Approximation

One of the attractive features of transacting business over the blockchain is the ability to remain anonymous, which means, for those businesses, identifying the location of their customers can be difficult for sales apportionment purposes. However, some states have adopted a "reasonable approximation" caveat into the sales factor sourcing regulations.[1110] Within the blockchain ecosystem, if customer or market data are not available, taxpayers transacting with digital assets may need to determine what alternative data sources can be used to reasonably approximate the location of sales in market sourcing states. Is the customer base primarily domestic? What portion of the "market" is foreign? When using a reasonable approximation methodology, special focus should be given to substantiating and documenting all assumptions and data. This is an area of significant controversy in state audits, so taxpayers must be prepared to demonstrate that they exhausted all other statutory sourcing methodologies while also making a case that the approximation methodology is a reasonable reflection of the market for the related receipts.

d. Commentary on Gross Inclusion vs. Net Inclusion

For state apportionment purposes, the amount of receipts included in the sales factor may not be limited to the net gains subject to income tax. Most state and local taxing jurisdictions instead include the gross proceeds amount in determining the apportionment percentage. This is particularly relevant in the context of mining and staking activities which include two or more recognition events — receipts of rewards and subsequent sales of tokens.[1111]

> *Example:* A Bitcoin (BTC) miner will recognize income upon receipt of BTC received as a reward for successfully validating a specific block of data. The income would be equal to the fair market value of the BTC received at the time of receipt. By virtue of this recognition event, the miner then acquires a basis in the BTC received equal to its fair market value at the time of receipt. If the miner immediately sells the BTC, the miner recognizes no additional gain or loss because the basis and the gross receipts would be the same, netting to zero.

In the above example, the fact that no gain or loss on the subsequent sale may not be relevant for state income tax apportionment purposes. However, for states that include gross receipts in the sales factor, the receipt from mining and the receipt from the subsequent sale could both be included in the sales factor.

While most states include gross receipts from sales in the sales factor, others may limit the apportionable receipts to the net gain recognized on the subsequent sale, either at the aggregate or transaction-by-transaction level.[1112] Any net loss transactions are excluded from the sales factor. For taxpayers with a high volume of crypto transactions, detailed record keeping is required to comply with such apportionment computation requirements.

For further discussion of state-specific guidance limiting receipts to the net gain from sales for apportionment purposes, see the State Corporate Income Tax Navigator (State Tax Series).

e. Commentary on Alternative Apportionment Methods

There are situations where the relevant state apportionment regime does not result in a fair apportionment of a taxpayer's income to a particular state. Given the uncertainty around the market participants in cryptocurrency-related activities, there is a possibility that the state tax departments may assert an alternative methodology to attribute receipts more accurately to a given state. This may include the use of separate accounting, the exclusion of one or more of the factors, the inclusion of one or more additional factors that will fairly represent the taxpayer's business activity in the state, or the use of any other method to effectuate an equitable allocation and apportionment of the taxpayer's income.

For example, in the context of mining, states may require that the gross amount of the reward received be recognized for tax purposes at the time of receipt. Under the same state's rules, recognition may also be required at the time of sale. This has the potential to result in a double counting of the sales that may not be reflective of the taxpayer's business activities within the state. Requesting alternative apportionment may be appropriate in these instances to alleviate distortion.

For state-specific guidance on alternative methods in calculating the amount received in sales for apportionment purposes, see State Corporate Income Tax Navigator (State Tax Series).

8. Net Worth/Franchise Tax

While the emphasis of this Portfolio is on federal income tax implications of the digital and blockchain economy, capital, net worth, and franchise taxes may be imposed in addition to or as an alternative to taxation of business income. These taxes are measured by the value of assets including intangible holdings such as stock, securities, or potentially digital assets. Blockchain and digital asset companies with significant net worth or large amounts of property in a franchise tax state can be caught by surprise if capital and franchise taxes are not considered early in the life cycle of the business.

Capital or franchise taxes are assessed on companies for the privilege of doing business in the state. The taxes are usually measured on the net worth of the taxpaying entity, defined

[1110] For state specific guidance regarding reasonable approximations to determine a location for sourcing purposes, see the State Corporate Income Tax Navigator (State Tax Series).

[1111] For state-specific guidance in determining the apportionment amount for the sales factor, see the State Corporate Income Tax Navigator (State Tax Series). For examples of state guidance that discusses the use of gross proceeds in determining the apportionment amount, see the State Corporate Income Tax Navigator.

[1112] For further discussion of state-specific guidance including gross receipts from sales in the sales factor, see the State Corporate Income Tax Navigator (State Tax Series).

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as total assets, less total liabilities. The net worth is then apportioned to the state before applying a tax rate. The apportionment principles are usually in line with the income tax apportionment, but there may be differences in the apportionment formula.

For further discussion of state-specific franchise tax, see the State Corporate Income Tax Navigator (State Tax Series). For further discussion of the apportionment principles, see 1150 T.M., *Income Taxes: Principles of Formulary Apportionment* (State Tax Series).

D. State & Local Indirect Taxes

1. Introduction

Indirect taxes have long been an after-thought in many tax departments and groups. In the last few years, however, indirect taxes have grown in importance and more taxpayers have attempted to be proactive about indirect tax considerations. The term "indirect taxes" can mean many things to many people, but generally it is a broad term including sales and use taxes, value-added taxes and excise taxes.

Owning and selling digital assets, such as cryptocurrency or NFTs, raises a number of state and local sales and use tax issues. The tax treatment of the acquisition and subsequent disposition of digital assets will likely fall within the same framework in which other digital and intangible transactions currently operate. It is generally not an option to simply treat everything as taxable everywhere and require sellers to collect and remit sales tax on all transactions; tax policy and tax laws generally do not allow for this type of broad brush nor would sellers or buyers agree with painting a new way of doing business with such a broad brush. Whether a given jurisdiction imposes sales and use tax on a sale of a digital asset depends on:

- whether the seller of the digital asset has nexus in the jurisdiction where the buyer receives the digital asset, and
- whether the digital asset being sold falls within the taxable classifications in the jurisdiction's sales and use tax statute.

This section covers broad sales and use tax concepts and how digital assets may fall within that framework. Sales and use tax specific concepts include taxability, exemptions, sourcing, and administration.

The section also briefly touches upon considerations for other transaction taxes, including admissions taxes, amusement taxes, and taxes on streaming services.

2. Taxability of Digital Assets for Sales Tax Purposes

a. Introduction

Merely establishing that a particular seller has nexus (discussed in X.B.1., above) in a given jurisdiction is not the end of the sales and use tax inquiry; the question then turns to whether the given jurisdiction imposes its sales and use tax on the transaction at issue. Many jurisdictions have yet to adopt specific guidance on cryptocurrency transactions. However, that does not mean that those jurisdictions cannot tax cryptocurrency transactions.

Many jurisdictions may consider the sale of digital assets such as cryptocurrency to be the sale of an intangible future value for sales tax purposes, while others may have other tax categories. Transactions involving NFTs or some other digital product or service in addition to the intangible value of digital assets are likely to be analyzed using analogies examining the treatment of the "thing" sold alongside the intangible value (e.g., artwork sold in a digital medium may be considered an intangible by some jurisdictions where the same image in a physical medium, such as a painting, would generally be considered tangible personal property). In addition to state-level taxes, many local jurisdictions, such as cities, counties, or districts, impose indirect taxes separate from that of the states, and while these jurisdictions generally have not released guidance on how cryptocurrency falls within their tax systems, these jurisdictions have generally adopted an approach for how to tax transactions involving intangible assets, and several have adopted specific provisions for transactions involving digital products (e.g., electronically downloaded software, movies, music, etc.). It is reasonable to expect that the general approach of both state and local jurisdictions will likely be similar to how these jurisdictions tax transactions involving other sales of digital assets and intangible assets. This requires a close review of existing sales and use tax provisions, even if they do not specifically mention digital assets, as the existing definitions may be interpreted by the taxing jurisdiction at issue as extending to or otherwise applying to transactions involving digital assets.

While the acquisition of digital assets such as cryptocurrency may not be explicitly subject to tax in most jurisdictions, it is still possible for transactions involving digital assets to be subject to sales and use tax, either in whole or in part. For example, any fees or charges for services associated with holding, selling, or trading could be subject to tax to the extent jurisdictions tax such services.[1113] Finally, as seen in the "tangible" world, a transaction's taxability determination is even less straightforward when the transaction involves separate components or elements that are both taxable and nontaxable, often referred to as "bundled" or "mixed transactions."[1114] These types of transactions are discussed below.

b. Cryptocurrency

For U.S. federal income tax purposes, the IRS has defined virtual currency to be property.[1115] For state tax purposes, the nature and character of the property determine how it is treated under the state's taxing statutes. Some states that have issued guidance have adopted the IRS's view of cryptocurrency to be property for state income tax purposes, as well as state sales and use tax purposes.[1116] Because cryptocurrency utilizes cryptography that is digitally recorded and is of a digital nature,

[1113] For example, certain states tax on information services. Taxation of information and data processing services are discussed in depth in X.D.2.c.(4), below.

[1114] The authors acknowledge that while the terms "bundled" and "mixed" transactions are often used interchangeably, they are indeed different types of transactions: (ii) Bundled transactions are transactions in which two or more distinct and identifiable products are sold for one nonitemized price; Streamlined Sales & Use Tax Governing Bd., Streamlined Sales & Use Tax Agreement Part I Administrative Definitions; (ii) Mixed transactions contain both taxable and nontaxable elements that cannot be separately identified. Given the broad nature of this overview on digital assets, the authors are primarily referring to bundled transactions for purposes of this discussion.

[1115] Notice 2014-21.

[1116] TAM 2015-1(R).

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most states that adopt the IRS's interpretation view cryptocurrency to be "intangible property," which is generally not subject to sales and use taxes, except in states that impose broadly based gross receipts-style taxes.[1117] A thorough review of the nature of the cryptocurrency is generally required to ascertain its characterization as intangible property, including how the cryptocurrency is sold and purchased, transferred, stored, and to what it entitles the purchaser.

c. Nonfungible Tokens (NFTs)

(1) Introduction

States have issued little specific guidance regarding the application of sales and use tax to NFTs. Some states have begun to issue high-level guidance or have publicly announced their desire to impose sales and use tax on NFT transactions, but there is little in the way of practical NFT-specific guidance upon which sellers, buyers, or exchanges of NFTs can rely.

Examples of the limited state NFT guidance includes a public statement by a state's Department of Revenue representative that NFTs, including licenses to use them, are regarded as tangible personal property and taxed as such, and noted that the state may impose retroactive taxation for the past six years.[1118] Another state issued interim guidance on the taxability of certain transactions involving NFTs for excise tax purposes, and thus, to determine the sales and use or business and occupations tax treatment of NFTs, the state must consider whether the transaction is comprised of multiple components or merely a digital code that grants the owner access to a digital good.[1119]

For further discussion of state-specific guidance regarding the application of sales and use taxes to NFTs, see State Sales & Use Tax Navigator (State Tax Series).

Given the high-level statements and lack of specificity from many state taxing authorities regarding the application of sales and use taxes to transaction involving NFTs, taxpayers must therefore consider the functionality of the particular digital asset, including NFTs, at issue and how a particular state's sales and use tax provisions might apply even if those provisions do not explicitly address NFTs. If the jurisdiction has not yet issued specific guidance, the most likely treatment in the current sales and use tax systems can still be examined by understanding how states tax other goods and services in the digital space.

When NFTs skyrocketed to popularity in the digital world, they most often represented digital images or videos, or even authentication of tangible personal property. As buyers have grown more comfortable with NFTs, and as more traditional businesses have begun experimenting with blockchain technology and NFT capability, NFTs may be used for event tickets, online access to information, spaces, or events, real property deeds, or property or rights in the metaverse.[1120] Many NFTs are not sold directly by the creator to the buyer but are instead sold through some type of online platform or exchange. These exchanges or platforms usually impose fees and surcharges for their services on the platform or exchange. Finally, some NFTs may represent multiple things with different and distinct characterizations and be considered bundled transactions, which can cause the sale of an otherwise nontaxable intangible asset to be subject to sales tax depending on what else is included in the purchase of the NFTs.

For further discussion of NFTs, see II.B.5., above.

(2) Intangible Property

While NFTs are supposed to represent "something," the NFT itself is, in its most basic form, a link to a record on the blockchain indicating ownership of a physical or digital asset.[1121] When someone purchases an NFT, the purchaser receives a link to the digital record of ownership in the purchaser's digital wallet — but generally there is nothing downloaded or "received" in a traditional sense. While there is an inclination to see "an NFT" as the thing it represents on the blockchain, there is an argument that, at their core, certain NFTs may be categorized as intangible assets. For example, an NFT may not only be an image or a media clip, but it may give the owner property rights beyond copying or displaying of an image, such as rights to a copyright, design patent, and trademark.[1122] Some of those rights for the owners may include licensing and commercialization of the NFTs, such as producing merchandise in the likeness of the NFT allowing the licensor to collect royalties.[1123] These NFTs can be viewed as smart contracts that define the applicable terms of purchase, resale terms, etc., which then self-executes the transfer of the NFT ownership when the defined criteria are met.[1124] Therefore, the classification of the NFT (e.g., as some type of intangible property) is crucial for determining the taxability of the sale of the NFT.

States have varying interpretations and taxation systems when it comes to imposing a tax on an intangible property. As a general rule, the majority of the states impose a tax on the sale of tangible personal property, and intangible property is excluded and considered outside of the scope of the taxing statute unless specifically identified as subject to the sales tax. To determine whether sales of intangibles are taxable, some jurisdictions rely upon what a reasonable person's determination of what the "true object" of the transaction is.[1125] Some states have more narrowly defined laws providing that the sales of intangible property are not subject to sales tax and, if there is a sale of tangible personal property along with the intangible, the amount or value of the intangible property is excluded from sales and use taxation.[1126]

[1117] *See* X.E., below.

[1118] *Pennsylvania Option to Retroactively Tax NFTs a Legal Minefield*, DTR (June 28, 2022).

[1119] *Washington DOR Issues Interim Guidance Statement on Excise Taxability of Nonfungible Tokens*, DTR (July 8, 2022).

[1120] *Nonfungible tokens (NFT)*, Ethereum.

[1121] *Nonfungible tokens (NFT)*, Ethereum.

[1122] Elizabeth, Soniya Shah, and Michael Young, *Demystifying NFTs and intellectual property: what you need to know*, Reuters (May 10, 2022).

[1123] Elizabeth, Soniya Shah, and Michael Young, *Demystifying NFTs and intellectual property: what you need to know*, Reuters (May 10, 2022).

[1124] Elizabeth, Soniya Shah, and Michael, Young, *Demystifying NFTs and intellectual property: what you need to know* Reuters (May 10, 2022).

[1125] See *State v. American West Community Promotions, Inc.*, 2002 N.D. 98, 645 N.W.2d 196 (June 4, 2002), employing the "true object" test to determine whether the transaction is a sale of intangible property.

[1126] For state-specific guidance on sales and use taxes for mixed transactions, see 1300 T.M., *Sales and Use Taxes: General Principles* (State Tax Series) and State Sales & Use Tax Navigator (State Tax Series).

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Commentary: Some states with broad-based transaction taxes may consider NFTs taxable even if it can be argued they are the sale of intangible property. These "gross receipts tax states" tend to impose tax on generally all sales with few exceptions, and sales of intangibles are generally not excepted. NFTs, even if considered to be intangible property, are likely subject to tax under sales taxes that are structured as broad-based gross receipts taxes. The states do not follow a uniform method for applying sales and use taxes to sales of intangible property; therefore, taxpayers must examine the law of each relevant state carefully when determining how to treat sales of virtual currencies and other crypto-assets. The specific function of a given NFT (e.g., as a digital representation of artwork, as a digital representation of artwork that includes admission to a particular event, etc.) may dictate the imposition of sale, use, and, in some cases, other taxes by the state or local jurisdiction.

(3) Digital Goods

In the initial wave of NFTs' popularity that made them a household name, most NFTs represented digital images, like art or videos. Many social media sites, including Twitter, allow users to set their profile pictures using NFTs, which contributed to NFTs initially being synonymous with digital images.[1127] Some online gaming and entertainment services already classify some of their in-game or in-app products as digital goods or products, and NFTs are quickly being integrated into online gaming and entertainment in a similar way.[1128]

Commentary: For indirect tax purposes, it can be natural to draw an analogy between NFTs and what is generally referred to as "digital goods." Many states impose sales and use tax on electronic versions of otherwise tangible items, which they may call "digital goods" or "specified digital products." For state-specific guidance on sales and use taxes imposed on digital products, see the State Sales & Use Tax Navigator (State Tax Series).

(4) Software as a Service

Another tax category that NFTs and services associated with their sale could fall into in some states is software-as-a-service (SaaS) or some type of remote access to software. Most states impose sales and use tax on the sale of canned software delivered on tangible personal property (e.g., transferred on a disk or drive), and the sales and use tax treatment diverges from there depending on the method of delivery.[1129] Generally, states' treatment of SaaS or remote access to software depends on whether the state creates a legal fiction to deem SaaS to be the constructive possession of software, or whether a state considers SaaS to fall within some other taxable definition, such as data processing or information services.

A person whose experience with NFTs is limited to NFTs that convey rights to digital images may wonder how an NFT could be construed as SaaS. The metaverse — a virtual universe that is more than a multiplayer gaming platform — provides one possible case study for this treatment where NFTs act as the user's identity in the platform.[1130] With the evolution of the metaverse, which some refer to as Web 3.0, the issue of identity is becoming more complicated and difficult to protect. The issue is how can the community establish a protocol to identify the user such that the identity turns into the user's alter-ego.[1131] NFTs can provide a solution to this problem since they contain unique, secure, and decentralized blockchain-based records of proving digital ownership of nonphysical assets.[1132] As NFTs are evolving such that they can be transferred across metaverses, they become more valuable as indicators of a particular user — a stable and secure digital identity enabling people to migrate freely as their individual selves from the physical to the virtual domain and within the virtual domain.[1133]

Commentary: Given that some NFTs can be used for a more operational and practical function such as people's identities, it may be tempting to characterize those NFTs as SaaS for sales and use tax purposes. Generally, SaaS is accessed via the Internet and does not allow users to actually possess or control the software itself, which often resides on a server that the user does not control or may not otherwise access. The NFT is used by the consumer to indicate the consumer's identity and the consumer does not have control over the underlying infrastructure which enables the NFT's operational functionality. In other words, the NFT, which is software, acts as a service enabling a consumer to be uniquely identified both in the physical universe and in the metaverse.

In cases where NFTs arguably act as SaaS, the state tax treatment of SaaS may be instructive for how a particular state will treat the NFT for sales and use tax purposes. Some states may consider SaaS as a nontaxable service, but some states view a sale of SaaS as a taxable transaction.

For further discussion of NFTs taxed similarly to SaaS, see 1380 T.M., *Sales and Use Taxes: Cloud Computing* (State Tax Series) and the State Sales & Use Tax Navigator (State Tax Series).

(5) Amusements/Admissions

Due to their uniqueness and the ability to provide proof of ownership, NFTs can be used as tickets for admissions to events (sporting, entertainment, concert, etc.) or coupons for discounts. The majority of the states impose tax on admissions with certain exceptions, such as admissions to charitable, school/educational or governmental events.

Commentary: Taxpayers should generally not expect that changing the method of delivery of an admissions ticket to an NFT from some other form of delivery will impact whether a given state's tax on admissions applies. Taxpayers must refer to the specific state statutes regulating admissions to entertainment or amusement events to determine whether their specific ticket is subject to tax or not.

[1127] Richard Lawler, *Twitter brings NFTs to the timeline as hexagon-shaped profile pictures,* The Verge (Jan. 21, 2022).

[1128] *See Google Play best practices,* Google Play (suggesting that developers who are distributing their app through Google Play are required to use its billing system to "sell digital goods or services" in the app). *See also* Ian Dean, *What do NFTs mean for gamers? How NFT games are changing the way we play* Creative Bloq (Nov. 4, 2022) (noting that NFT purchases allow the player to purchase their own character within a narrow or a wider ecosystem where the NFT can function).

[1129] See the "SaaS" definition under the NIST glossary on the U.S. Department of Commerce website.

[1130] *NFTs: Identity in the metaverse*, Financial Times, Cypto.com.

[1131] *NFTs: Identity in the metaverse*, Financial Times, Cypto.com.

[1132] *NFTs: Identity in the metaverse*, Financial Times, Cypto.com.

[1133] *NFTs: Identity in the metaverse*, Financial Times, Cypto.com.

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For state-specific guidance for taxing NFTs similar to admission tickets, see State Sales & Use Tax Navigator (State Tax Series).

(6) Information Services and Data Processing Services

(a) Introduction

The majority of states imposing sales and use taxes do not generally impose tax on all sales of services but instead impose sales and use taxes on specifically enumerated services. Taxable service categories that come up often in the context of technology and electronically provided products or services include information services and data processing services. While a particular NFT may not necessarily represent data processing or information services on its own, any fees that sellers, platforms, or exchanges impose along with the sale of the NFT may be classified as either an information service or a data processing service, depending on what activities the seller undertakes and what the buyer receives in exchange for the fee.

(b) Information Services

Several states have adopted specific provisions regarding the sales and use tax treatment of information services (although generally these have not been updated to reflect the rise of blockchain technology). A number of states do not define "information services" and generally do not impose sales and use tax on sales of information services; however, this exclusion only applies as long as no tangible personal property is included in the transfer. Other jurisdictions impose sales and use taxes on the sale of information services (and some exceptions may apply).

Commentary: NFTs that convey a compilation or report of information, and that could fall within a jurisdiction's taxable definition, should be reviewed to determine what is being provided to buyers and what services the seller or platform is performing for the buyer. Further, it is possible that any ancillary fees or surcharges that sellers, platforms, or exchanges charge in addition to the price of the NFT itself could fall within this category, depending on what the buyer represents the fee to be in exchange. Fees that platforms or exchanges charge to buyers or to NFT sellers in exchange for providing dashboards or summaries of sales could be considered a taxable service, such as an information service.

For further discussion of state-specific guidance on taxing information services, see State Sales & Use Tax Navigator (State Tax Series).

(c) Data Processing Services

Another specifically enumerated service that certain NFTs could be analogized to are "data processing services." The inclusion of smart contracts in NFTs, for example, that allow for some sort of processing or consumption of data to function could be considered data processing under certain state definitions. Some jurisdictions define data processing service separately from information services, while some include one in the other. As with anything in the state and local tax realm, a review of the specific state rules is warranted to determine how the specific circumstances of a product, such as an NFT, fits within a state's definitions.

Commentary: While an NFT itself may not necessarily represent data processing or information services, any fees that sellers or platforms or exchanges impose along with the sale of the NFT itself could be categorized as such, depending on what activities the seller undertakes and what the buyer receives in exchange for the fee. Further, there is a potential that such NFTs may evolve in the form of smart contracts with a function of generating, acquiring, storing, or processing information. States that impose tax on these categories of services tend to take an expansive and broad view of what falls within their taxable buckets, and it is possible that these states would seek to extend their sales and use taxes to include NFTs or services around NFTs.

For further discussion of state-specific guidance on data processing services, see State Sales & Use Tax Navigator (State Tax Series).

d. Bundled Transactions

As the range of business activities conducted using digital assets continues to evolve and grow, what the digital assets themselves represent (and what other assets and services may be transferred together with the digital assets) becomes more complicated. For example, a buyer might pay one price to receive a pair of rare designer sneakers along with an NFT verifying the sneakers' authenticity. A baseball fanatic may pay a fee for an opening-day game ticket, a tour of the ballpark, an autographed game ball, and an NFT of her favorite player's baseball card. The taxability of each of these separate things may be straightforward — or not — but what is the proper sales and use tax treatment when these items are sold together for one price?

Determining the character of the transaction can be quite challenging when there are multiple components of the product, or there are separately identifiable pieces of the transaction — but there is only one sales price. The tax treatment of such transactions — generally referred to as "bundled transactions" — has long been a challenge for taxpayers, as reflected by the many ruling requests submitted by taxpayers to tax agencies as well as litigation disputes in courts across the country. The concept of how-to tax sales involving bundled transactions appears to be similarly challenging in the digital assets arena.

In some transactions, buyers of NFTs receive other items as well — e.g., the sneakers or the baseball fan package examples above. Determining taxability of the NFT itself can be complex enough, and attempting to determine the tax treatment of a transaction involving multiple pieces, one of which is an NFT, takes sales tax complexity to a different level.

Historically, when a transaction has involved both services and tangible personal property, many state taxing authorities have looked to the "true object test" or "predominant purpose test," requiring a determination of the true object of the transaction, with the tax character of that "true object" governing the entire transaction. Many states subscribe to the true object test in their statutes, regulations, or rules.

Commentary: Often, taxing authorities may use the "true object" test in analogous situations, such as single-price transactions involving various products that may be both taxable and nontaxable. States may allow taxpayers to only tax the portion of the sales price attributable to the item(s) subject to sales tax. Some states may apply a "de minimis test," where if the value of the tangible personal property is less than a certain thresh-

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old of the sales price, then the transaction is not considered to be a bundled or mixed transaction, and the character of the predominant (usually nontaxable thing) controls. Still, a few jurisdictions maintain that any transaction for a single price that involves even one taxable component is entirely subject to tax.

When NFTs or other digital assets are one component of many sold for a single price, the value of the NFT or digital asset could potentially be considered as part of the taxable base subject to sales and use tax, depending on the jurisdiction where the sale occurs.

For further discussion of bundled transactions, see 1300 T.M., *Sales and Use Taxes: General Principles* (State Tax Series).

3. Exemptions

Every state and local jurisdiction that imposes a sales and use tax also provides certain exemptions. State and local sales and use tax laws generally provide that retail sales of tangible personal property and certain enumerated services are presumed to be taxable unless an exemption applies. Many states provide sales tax exemptions for policy reasons (e.g., necessities such as groceries/unprepared food, medication and medical equipment, etc., or promotion of a particular industry), buyer-based reasons (e.g., government entities, nonprofit associations, schools and educational institutions, etc.), and use-related reasons (e.g., resale or manufacturing, etc.).

Exemptions that are likely to apply directly to the purchase or sale of digital assets are somewhat limited and untested, such as a resale exemption or manufacturing exemption. However, a few states have enacted sales and use tax exemptions specifically designed to attract businesses and services around cryptocurrency mining.

For further discussion of exemptions to a sales and use tax, see 1300 T.M., *Sales and Use Taxes: General Principles* (State Tax Series).

4. Commentary on Sourcing/Situs

Once it has been determined that a taxing authority has jurisdiction to require a seller to comply with its sales and use taxes, and the transaction at issue is taxable under the jurisdiction's sales and use tax laws, the taxpayer must also determine which jurisdiction actually gets the tax and at what rate. This is often referred to as sales tax "sourcing" or "situs," the rules of which determine which state law applies to a sale transaction — in other words, where the sale occurred, what rate applies, and what jurisdiction will receive payment of the tax.

But the very idea of sourcing a transaction is nearly impossible with the introduction of blockchain technology and its express goals of decentralization, privacy, and anonymity in a way that protects the seller's identity and location. The sourcing problem could be an impediment to many sellers of digital assets to complying with sales and use tax rules. While some states allow origin-based sourcing for sales where the address of the purchaser is unknown, these provisions do not address all the issues raised by anonymity in blockchain technology. For example, a platform for trading NFTs may be unable to reasonably determine the identity and the location of any of the marketplace participants (i.e., buyers and sellers), and so it cannot even collect the sales taxes based on the seller's location.

For sellers who are attempting to comply with sales and use tax collection rules with no practical guidance from the state, it is advised that the taxpayer consult a state taxing authority's published guidance on reasonable sourcing methods, or even to attempt to negotiate an agreement with the taxing agency as to what method of reasonable allocation shall be used.

For state-specific guidance on sourcing or situs rules, see the State Sales & Use Tax Navigator (State Tax Series).

5. Administration

Compliance with applicable sales and use tax law requires a significant amount of preparation and investment in technology needed to charge and collect tax from buyers, assist with internal recordkeeping, prepare and file the returns and remit payment, and in-house teams to manage the process and be prepared for the inevitable jurisdictional reviews (audits). The sales and use tax compliance and planning functions can be laborious for "typical" sellers of tangible products and everyday services, and the complexity increases in a digital asset context.

Administration requirements include the seller or marketplace facilitator registering with the appropriate taxing jurisdiction to collect sales and use taxes, and once registered that taxpayer is expected to file returns on a scheduled basis. Furthermore, after registering and filing taxes with a jurisdiction, a taxpayer can be expected to be subject to a review by the taxing jurisdiction at some point — and for some larger taxpayers, on a regular cadence. A jurisdictional tax audit is a process directed towards increasing accountability in reporting and transacting in general, and the government attempts to be efficient in its audits by picking those taxpayers who will yield the highest success rate for compliance error discovery or taxpayers involved in complex industries. For example, sales in crypto markets and blockchain industry may be susceptible to audits because of the industry's inherent complexity and ever-changing ways of transacting business.

An additional complexity for companies dealing in digital assets is whether the jurisdictions allow payments in cryptocurrency or require payments to be in U.S. dollars. A few states and localities have accepted payment in cryptocurrency.[1134] Being forced to calculate tax and convert to U.S. dollars may be a liquidity challenge for some companies and requires having a process in place for tax compliance.

For state-specific guidance on compliance and administration procedures, see the State Sales & Use Tax Chart (State Tax Series), and for further discussion of state tax audits, see 1720 T.M., *State Tax Audit and Collection Procedures: General Principles* (State Tax Series).

E. State & Local Gross Receipts Tax

1. Overview

Gross receipts taxes are generally imposed on the gross receipts generated within a given jurisdiction. A gross receipts taxing jurisdiction may only impose its tax on a taxpayer's business activities in the jurisdiction if the taxpayer has sub-

[1134] For state-specific guidance allowing cryptocurrency as payments, see the State Sales & Use Tax Navigator (State Tax Series).

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stantial nexus in the jurisdiction.[1135] For example, establishing physical or economic presence in the jurisdiction can meet the nexus requirement in a jurisdiction. Gross receipts taxing jurisdictions often have different classifications depending on the taxpayer's business activities. Selecting the correct classification is one of the most important gross receipts tax considerations, as selecting the proper classification may result in different applicable nexus standards, sourcing rules, and tax rates.[1136] Taxpayers deriving receipts from cryptocurrency activities or NFTs face additional complexities when selecting the proper classification as taxpayers may derive receipts from various activities, including the mining of cryptocurrencies or sale of cryptocurrencies and NFTs. In addition, taxpayers must contend with the lack of guidance from taxing authorities as to the proper gross receipts tax treatment of sales of cryptocurrencies and NFTs.

Although gross receipts taxes imposed by different jurisdictions may share some common underlying principles, each gross receipts tax jurisdiction has unique rules that must be examined by each individual taxpayer.

For further discussion of gross receipts tax, see the State Excise Tax Navigator (State Tax Series).

[1135] For a discussion of substantial nexus, see X.B.1., above.

[1136] For a discussion of the sourcing rules, see X.D.4., above.

2. Taxability

Determining the taxability of digital assets and related activities for gross receipts tax purposes requires a jurisdiction-by-jurisdiction analysis due to each jurisdiction's unique definitions of taxable products and services. Ascertaining each type of digital asset's taxability would entail an in-depth review of a taxpayer's revenue streams, contracts, and invoices received that could be sourced to the jurisdiction at issue. The taxability of cryptocurrency and NFTs is an ever-changing environment, with the likelihood that other states will also adopt legislative changes and publish formal guidance for the tax treatment of transactions in the cryptocurrency space.

Commentary: Because most jurisdictions have offered little to no guidance regarding gross receipts taxes and digital assets, taxpayers must first analyze a given tax jurisdiction's more general authorities to determine if they can be interpreted to apply to the taxpayer's transactions and activities in the cryptocurrency space. In many cases, taxing agencies will seek to extend existing authorities to new and innovative business activities rather than waiting for updated statutory and regulatory guidance on point to be implemented. However, obtaining guidance from the relevant authority may be necessary in certain situations to help ensure that the taxpayer determines the proper taxability for their business activities.

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XI. Selected Tax Issues for Individuals

A. Commentary on General Considerations for Individuals

Digital assets may be used by individuals in a personal manner, such as buying a cup of coffee or a ticket to an event. They may also choose to hold digital assets as an investment, use them in a business sense, or transmit digital assets as a gift. Many of the tax implications involving digital assets as it relates to individuals or family offices are similar to those explained in other areas of this Portfolio. And yet there are some unique tax considerations for individuals that will be explored in this chapter.

If someone uses crypto to purchase goods or services, this is a barter transaction which triggers gain or loss to the individual.[1137] Similar to businesses, the individual needs to consider basis tracking methodologies and segregated addresses.[1138] Much like the acquisition of other assets, the fees paid to a broker or gas fees on chain used in the purchase of a digital asset may need to be capitalized. This is a common fact pattern for individuals who use centralized exchanges to facilitate crypto transactions. The use of crypto for gas fees may also create gain or loss when the fair market value at the time of use differs from the basis in the crypto, which then leads to additional tax reporting. It should be noted that the individual may or may not get a Form 1099 to detail each sale transaction as the reporting requirements have not been consistently interpreted or adopted by digital asset exchanges. Further, any reporting from the exchange may or may not have reliable details about the basis of the digital assets associated with the transactions. It is recommended that individuals create their own records to support the gain or loss created from the use or sale of digital assets or alternatively leverage software applications for support. These records are also helpful in supporting digital asset transactions which are reflected on a Schedule C if they relate to a trade or business of the individual.

If a digital asset is gifted to a family member, the transaction may not trigger gain or loss, but the value of the digital asset at the time of the transfer will need to be evaluated for gift tax purposes.[1139] Further, the donor will want to identify the basis of the relevant digital asset that was transferred so as to support the basis impact to the remaining tranches of digital assets the donor may still hold. Also, that may be relevant to the recipient for tracking carryover basis and the holding period.

Individuals who engage in DeFi transactions should ensure they a develop a trackable methodology to recognize revenue, gain or loss.[1140] Similarly, individuals who may operate a node or engage in a mining pool, or use a service to stake their digital assets should understand the appropriate methods for determining revenue recognition.[1141]

Individuals engaged in digital asset transactions may find themselves with accounts, addresses and wallets in different areas. And while some may require an account to be established, it is also possible to engage in transactions directly with a protocol using a hardware wallet[1142] linked to software on a website. Taxpayers should take care in looking holistically at all holdings and accounts to make sure all transactions are reported and all tax considerations appropriately vetted. As an example, an individual may have long positions in a digital asset held in a hardware wallet and execute a lending transaction on an exchange, thus opening the possibility for the application of the straddle rules. Further, any digital assets held by a non-U.S. custodian should be considered for an FBAR filing.[1143]

A few additional areas of consideration will be discussed below, including digital assets used by individuals as contributions to a charity, trust, or retirement plan. This chapter will also explore the considerations of cash vs. accrual, net investment income, and the loss or theft of private keys.

B. Net Investment Income

Individuals using cryptocurrencies may have net investment income subject to tax under §1411, which applies in addition to other income taxes imposed under Subtitle A of the Code.[1144] The investment income tax equals 3.8% of the lesser of: (i) net investment income for the tax year; or (ii) the excess (if any) of the modified adjusted gross income for the tax year over the applicable threshold amount.[1145]

Net investment income is defined by §1411(c)(1) and Reg. §1.1411-4. There are three categories of gross investment income described in §1411(c)(1)(A):

- Gross income from interest, dividends, annuities, royalties, and rents, other than such income derived in the ordinary course of a trade or business to which the tax does not apply;
- Other gross income derived from a trade or business defined as a §469 passive activity or a trade or business of trading in financial instruments or commodities (as defined in §475(e)(2));[1146] and
- Net gain (to the extent taken into account in computing taxable income) attributable to the disposition of property other than property held in a trade or business to which the tax does not apply.

Net investment income is the excess (if any) of the sum of these three categories less the deductions allowed by subtitle A that are properly allocable to that gross income or net gain.

The first category of gross investment income consists specifically of interest, dividends, annuities, royalties, and rents.[1147] An item of gross income must be classified for federal

[1137] See VIII.B.1., above, for a more detailed analysis of barter transactions.

[1138] See V.B., above, for a more detailed analysis of basis tracking methodologies and considerations.

[1139] §2512(a).

[1140] See VII.E.2., above, for a more detailed analysis of the tax considerations for DeFi transactions.

[1141] See VII.B., above, for a more detailed analysis of these activities.

[1142] For a definition of "hardware wallet," see the Glossary of Terms in the Worksheets, below.

[1143] See VIII.H., above, discussing international reporting rules and the FBAR in the context of cryptos.

[1144] *See* 511 T.M., *§1411 — Net Investment Income Tax*.

[1145] §1411(a)(1), §1411(b); Reg. §1.1411-2.

[1146] §1411(c)(2).

[1147] §1411(c)(1)(A)(i).

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income tax purposes as one of these types of income in order to be included in this category.

Income that is realized in a trade or business, and which is either a passive activity or a trade or business of trading in financial instruments or commodities (as defined in §475(e)(2)), is included in the second category of gross investment income.[1148] As discussed in V.D.3., above, many digital assets appear to be a commodities for purposes of §475(e)(2) because they are "actively traded personal property" within the meaning of §1092(d)(1); therefore, the net income derived from trading digital assets would seem to be subject to the tax imposed on net investment income of §1411(a).

Income from delegated staking, as discussed in VII.C., above, is a passive activity and appears to be included in the second category of gross investment income.

Commentary: Income from self-staking, however, is likely to be treated as trade or business income similar to income from mining and subject to self-employment tax.

The third category of gross investment income includes net gain from the disposition of property.[1149] Disposition is defined as "a sale, exchange, transfer, conversion, cash settlement, cancellation, termination, lapse, expiration, or other disposition (including a deemed disposition, for example, under §877A)."[1150] Gain from the disposition of digital assets is included in the third category of gross net investment income.

Commentary: As discussed in VII.A., above, chain split coins represent an accession to wealth, and income is realized at the time the taxpayer exercises dominion and control over the coins. For purposes of §1411, it is the net gain attributable to the disposition of the chain split coins, rather than the income from the chain split, which appears to be included in the third category.

> *Example:* A taxpayer realizes income of $100 at the time he exercises dominion and control over chain split coins. The taxpayer would have basis equal to the $100 income recognized. He realizes $120 upon a disposition of the chain split coins. The $20 gain on his disposition of the chain split coins would appear to be the amount included under §1411(c)(1)(A)(iii).

C. Payments Made and Received by Cash Method Taxpayers

Cash method taxpayers (such as individuals) generally recognize gains, profits and income in the tax year when they are actually or constructively received, whether as cash, property or services.[1151] A cash method taxpayer constructively receives an item of income "in the taxable year during which it is credited to his account, set apart for him, or otherwise made available so that he may draw upon it at any time, or so that he could have drawn upon it during the taxable year if notice of intention to withdraw had been given. However, income is not constructively received if the taxpayer's control of its receipt is subject to substantial limitations or restrictions."[1152]

A cash method taxpayer generally takes a liability into account in the tax year in which the payment for the liability is made.[1153] A taxpayer on the cash method of accounting cannot deduct an amount by issuing a promissory note. A promissory note is simply a promise to pay cash rather than a payment of cash.[1154]

When an individual receives or pays cryptocurrency in a typical on-chain transaction, the change in ownership is initially recorded on a newly added block.[1155] As a practical matter, the receipt or payment can generally be taken into account at this point, although a more conservative interpretation would be to delay recognition until a reasonable number of confirmation cycles have elapsed to ensure that the ownership change has become truly absolute and irreversible. The latter interpretation is arguably the better one in situations where the blockchain imposes a minimum number of confirmation cycles before the newly acquired cryptocurrency can be spent because the required cooling-off period might be considered as a material restriction for purposes of the cash method. Such limitations are commonly imposed for cryptocurrency received as mining or staking rewards. In bitcoin, for example, mining rewards earned (which are credited in coinbase transactions) cannot be spent until 100 additional blocks have been successfully added to the blockchain, which serves to confirm the rewards. This phenomenon is sometimes described as "coinbase maturity."[1156] The time difference between the alternatives is typically not material in most circumstances.

Commentary: Additional analysis of the cash method principles may be required where the cryptocurrency transaction is conducted off-chain, involves custodians or brokers, or is subject to more complicated contingencies or conditions. For example, what result follows when one individual "pays" another by transferring the private key or other control device to another individual? Both individuals may have the capacity to transact the cryptocurrency. This may result in no cash income to the recipient until they take control and establish an exclusive private key.

D. Qualified Charitable Contributions

The amount of income tax for a charitable contribution deduction allowed by a taxpayer for gifts of digital assets depends upon multiple factors, including the following:

- The tax status of the donee charitable organization;
- The type of the digital assets being contributed;
- The use of the property by the donee organization; and
- The tax status of the donor (note that this discussion does not address charitable deduction for fiduciaries subject to the rules of §642(c) or transfer tax charitable deductions).

These factors are discussed in detail below.

[1148] §1411(c)(1)(A)(ii).
[1149] §1411(c)(1)(A)(iii).
[1150] Reg. §1.1411-4(d)(1).
[1151] Reg. §1.451-1(a), §1.446-1(c)(1)(i).
[1152] Reg. §1.451-2.
[1153] Reg. §1.446(c)(1)(ii), §1.461-1(a)(1).
[1154] *Helvering v. Price*, 309 U.S. 409 (1940).
[1155] *See* IRS FAQs, *Frequently Asked Questions on Virtual Currency Transactions*. See the "on-chain" definition under the NIST glossary on the U.S. Department of Commerce website.
[1156] *See What is a coinbase maturity rule?* COINTELEGRAPH (2023).

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Whether a donor is allowed a charitable tax deduction is fully dependent upon properly documenting and substantiating the charitable contribution. The rules for proper donor substantiation also vary based on the amount of the deduction and type of property contributed. The Code and Treasury Regulations require strict adherence to these requirements. Recent court rulings have reinforced this fact.[1157] This section provides a general discussion of the charitable contribution rules as they specifically relate to digital assets.[1158]

1. Contributions of Crypto — In General

The introduction of digital assets into philanthropy does not change the charitable giving rules. As donors incorporate these assets into their giving strategies, it is important to follow Treasury's guidance and updates as to what is classified as a digital asset.[1159] Properly classifying the type of property being contributed allows donors to understand the value of the deduction allowed, the limitation that will apply, and the donor substantiation requirements. Donee organizations may also want to reconsider gift acceptance policies to determine whether and under what conditions the organization will accept different types of digital assets. The charitable organization should also be focused on issuing proper contemporaneous written acknowledgement to their donors that accurately describes the donated property and denotes any goods or services provided to the donor in exchange for the contribution.

2. Tax Status of Donee

a. Fifty Percent Organizations

Charitable contribution deductions for individual donors are subject to different limits based first on the type of donee organization to which they contribute. The highest limits apply to contributions made to organizations described in §170(b)(1)(A), which will be referred to as "Fifty Percent Organizations." This group includes churches, schools, hospitals, public charities, supporting organizations, domestic governmental units, and certain private foundations, including private operating foundations and conduit foundations. Private operating foundations qualify for this designation by conducting direct charitable programs. Many private operating foundations have sought an advance ruling from the IRS as to their status, but any private foundation can qualify as a private operating foundation by meeting the required tests.[1160] Any private foundation may qualify as a conduit foundation in any year by: (i) making distributions of all of the foundation's current year distributable amount and any prior year undistributed amounts under §4942 in the current tax year; and (ii) distributing all of the contributions received in the current year no later than two months and 15 days after the tax year end.[1161]

b. Thirty Percent Organizations

"Thirty Percent Organizations" are organizations to which deductible charitable contributions under §170 can be made, but such organizations do not meet the requirements to be classified as Fifty Percent Organizations.[1162] Generally, Thirty Percent Organizations are private nonoperating foundations not making a conduit election for the year of the contribution.

3. Types of Digital Assets

Digital assets are treated as property for federal income tax purposes.[1163] As a result, gifts of digital assets to charity should be subject to the same charitable deduction rules as the gifts of other types of property. Care should be taken in examining the detail of the type of digital assets actually transferred.[1164]

Commentary: The logistics for transferring the digital assets to the charity should be examined at the time of contribution of the property by both the donor and donee organization. The parties should ensure that title in the property has been transferred from the donor's wallet to the donee and that the donor does not retain any strings in the transferred property that could make the transfer incomplete. From the donee's perspective, the charity will need to update gift acceptance policies to include digital assets and determine the type(s) of digital assets the organization is willing to accept and instill protocols to contemporaneously describe the gifted digital asset in the donor's ledger.

Property is generally divided into capital gain property[1165] or ordinary income generating property, such as inventory or capital assets held less than a year, and self-created art. Capital gain property held long-term is generally afforded preferential tax treatment when sold or donated to a Fifty Percent Organization. The term "ordinary income property" is any property where any portion of the gain is not considered to be long-term capital gain property if the property was sold at fair market value on the date that the property was contributed to a charitable organization.[1166] The donation of ordinary income property is typically reduced by the amount of ordinary income that would have resulted if the contributed property had been sold at fair market value instead of being donated.[1167]

Notice 2023-27 clarifies how one category of digital asset, the nonfungible tokens (NFTs) can associate with another category of property, collectibles, defined in §408(m)(2). Collectibles may be classified as either capital gain or ordinary income property. Collectibles historically are a type of property which may not otherwise have been associated with digital assets. However, a NFT may be useful to both authentication and transfer of collectibles. This is because a NFT is a unique

[1157] *See, e.g., Albrecht v. Commissioner*, T.C. Memo 2022-53 (charitable contribution deduction was disallowed because neither deed of gift nor donor acknowledgment letter contained required language stating no goods or services were provided associated with gift); *Keefer v. United States*, No. 3:20-CV-0836-B, 2022 BL 233347 (N.D. Tex. July 06, 2022) (charitable contribution deduction was disallowed in part because donor acknowledgment letter failed to provide required language stipulating fund sponsor had exclusive control over all assets and that donor only had advisory privileges under gift agreement).

[1158] For further discussion of the specific rules relating to charitable contributions, see 521 T.M., *Charitable Contributions: Income Tax Aspects.*

[1159] For a discussion of types of digital assets, see II.B., above.

[1160] §4942(j)(3).

[1161] Section 170(b)(1)(A)(vii) and §170(b)(1)(F) and the regulations thereunder describe the requirements for making and documenting the conduit election, which are beyond the scope of this Portfolio.

[1162] §170(b)(1)(B).

[1163] Notice 2014-21.

[1164] See II.B., above, for a discussion of the types of digital assets.

[1165] §1221.

[1166] Reg. §1.170A-4(b)(1).

[1167] §170(e)(1).

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digital identifier on a distributed ledger technology and may be used to certify authenticity and ownership of an associated right or asset (e.g., a collectible). Alternatively, ownership of an NFT may provide the holder a right with respect to a digital file which is an NFT itself (such as digital art).[1168] The ownership of a collectible which an NFT certifies as an associated right or associated asset until further guidance is provided will have the same character as the underlying property.

Other assets specifically listed as ordinary income property include:

- Future interests in tangible personal property.[1169] This could be relevant since the IRS issued Notice 2023-27 to address NFTs where the digital contract is associated with tangible personal property such as a work of art which can be a collectible;
- Contributions of qualified conservations[1170] with special rules for contributions of property used in agriculture of livestock production.[1171] As conservation groups and stockyards come "on chain" blockchain and digital contracts will be a more common way of tracing ownership of specific lots of livestock and certifying ownership or assets;
- Tangible personal property,[1172] which may be represented by a NFT[1173] (if the donee is a Fifty Percent Organization and the donee's use of the property impacts the amount of the deduction as discussed below);
- Any patent, copyright (other than a copyright described in §1221(a)(3) or §1231(b)(1)(C)), trademark, trade name, trade secret, know-how, software (other than software described in §197(e)(3)(A)(i)), or similar property, or applications or registrations of such property;[1174]
- Any taxidermy property which is contributed by the person who prepared, stuffed, or mounted the property or by any person who paid or incurred the cost of such preparation, stuffing, or mounting.[1175] A NFT is a digital asset which aids in both the transferability of property which may be both fragile and not readily transferable without substantial transportation logistics. These assets are also often collectibles.[1176]
- Special rules apply for certain contributions of inventory and other property,[1177] which may apply to digital assets or NFTs depending upon the facts.

Pending additional guidance after comments are received from Notice 2023-27, the IRS intends to issue guidance regarding the treatment of certain NFTs and classification of NFTs associated with collectibles. Until such time, the IRS intends to apply a "look through analysis" as to the character of the NFT utilizing the underlying associated asset to characterize the associated NFT.

The general rule for income tax charitable deductions provides a taxpayer may contribute appreciated long-term capital gain property to a Fifty Percent Organization and deduct the fair market value of the property without the reduction for gains which would have been recognized if the property had been sold by the donor.[1178] This may result in a tax benefit for the donor, as they also generally are not taxed on the appreciation prior to the donation. However, two common exceptions exist to this general rule:

- The deduction is reduced for contributions made to Thirty Percent Organizations even if the appreciation is long-term capital gain unless the property is qualified appreciated stock.[1179] The definition indicates that qualified appreciated stock must be stock of a corporation. Since digital assets are not stock of a corporation, they will not qualify for this special exception.
- The deduction is reduced for tangible personal property to a Fifty Percent Organization that uses the property for a purpose or function unrelated to its exempt purpose (see discussion at XI.D.3.a., below).

The general rule regarding the donation of ordinary income property is that the deduction is limited to basis.[1180] As explained above, ordinary income property is any property that is not a long-term capital asset as defined in §1221. Relevant to digital assets, ordinary income property includes both inventory and self-created assets.[1181]

a. Use of Contributed Property by Donee Organization

As Notice 2023-27 describes, an NFT may be used to certify authenticity and ownership of physical property such as art, which is classified as tangible personal property. When a donor contributes tangible personal property to a Fifty Percent Organization that does not use the property in furtherance of its exempt purpose, the donor's deduction is limited to the tax basis in the property.[1182] However, if the Fifty Percent Organization intends to use the tangible personal property in furtherance of its exemption, the donor is allowed to take a deduction for the fair market value of the property. The donor may even be allowed a fair market value deduction if the intended use by the donee organization later becomes impossible or infeasible.[1183]

4. Tax Status of Donor

Charitable contributions for individuals and C corporations are provided for under §170. These rules (including the substantiation requirements) also generally apply to organizations treated as partnerships and S corporations for tax purposes and their owners who are individuals and C corporations. The rules also apply to tax-exempt organizations structured as cor-

[1168] The digital file is not the same as the digital asset as defined in §6045(g).
[1169] §170(a)(3).
[1170] §170(b)(1)(E).
[1171] *See Beefing Up Blockchain, How Blockchain can Transform the Irish Beef Supply Chain*, Deloitte (2018).
[1172] §170(e)(1)(B).
[1173] Notice 2023-27.
[1174] §170(e)(1)(B)(iii).
[1175] §170(e)(1)(B)(iv).
[1176] *See T. rex Skull Fossil from South Dakota to be auctioned in NY for millions*, PBS (No. 8, 2022).
[1177] §170(e)(3).
[1178] Reg. §1.170A-1(c)(1). For further discussion of qualified charitable contributions, see 521 T.M., *Charitable Contributions: Income Tax Aspects.*
[1179] §170(e)(1)(B)(ii), §170(e)(5)(A).
[1180] §170(e)(1)(A).
[1181] §1221(a)(1), §1221(a)(3).
[1182] §170(e)(1)(B).
[1183] §170(e)(1)(B), §170(e)(7).

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porations that file income tax returns on Form 990-T, *Exempt Organization Business Income Tax Return*. Fiduciary arrangements (trusts and estates) generally must comply with §642(c) (which is not addressed in this discussion) for applicable charitable income tax deductions. In certain situations, §642(c) and the underlying regulations refer to §170.

5. Substantiation Requirements

Proper substantiation of charitable contributions is of utmost importance, as courts have ruled that strict compliance is required, and substantial compliance is not sufficient.[1184] Failure to meet the substantiation requirements may result in complete disallowance of the donor's charitable contribution deduction.

Since the IRS has confirmed that digital assets of any type are not cash,[1185] the donor must comply with the substantiation requirement for noncash property. A qualified appraisal is required for contributions of more than $5,000,[1186] but a qualified appraisal is not required for donations of cash, inventory, property held primarily for sale to customers in the ordinary course of a trade or business, or "publicly traded securities."[1187] Given the complex structures of some digital assets, donees should be diligent to properly describe the assets received in the contemporaneous written acknowledgment provided to the donor.

For further information regarding the specifics of charitable substantiation, see 521 T.M., *Charitable Contributions: Income Tax Aspects*.

6. Other Considerations

a. Partial Interests

In the case of a charitable contribution, not made by a transfer in trust, of any interest in property which consists of less than the donor's entire interest in the property, no deduction is allowed unless the interest meets an exception.[1188] A relevant exception for digital assets applies when the donor contributes an undivided portion of their entire interest in property.[1189] As an example, a taxpayer who owns digital art to which they attach an NFT and subsequently donates the NFT, the donor could be considered to have retained a partial interest in the property. The donor could potentially reduce this concern if they transfer both the digital art and the underlying copyright along with the NFT.

For further discussion of the partial interest rules relating to charitable contributions, see 521 T.M., *Charitable Contributions: Income Tax Aspects*.

b. Conditional or Contingent Donations

The regulations under §170 anticipate that a donor may make a transfer with conditions attached. If failure of this condition would cause the donated asset to be transferred back to the donor or to any other person or entity that is not an allowable recipient of a deductible charitable contribution, the likelihood of this condition not being met needs to be assessed. If the risk of the condition not being met is not "so remote as to be negligible," the contribution is not deductible.[1190]

E. Theft, Casualty Losses, Worthlessness and Abandonment

1. Casualty Losses and Theft

An individual can experience cryptocurrency losses in a number of ways. The private keys (or other credentials required to control the cryptocurrency) may be lost or stolen through inadvertence or the theft or destruction of hardware containing the private keys. Hackers and malware can also result in losses. Finally, if the individual does not keep personal control of the cryptocurrency (self-custody), losses can occur when the broker, dealer, agent or custodian holding the cryptocurrency is hacked or commits fraud or malfeasance.

Section 165 generally allows a deduction for "any loss sustained during the taxable year and not compensated by insurance or otherwise," including certain casualty losses and theft losses.[1191] Determining whether a loss results from casualty or theft and when that loss should be taken into account require careful consideration of the relevant facts and circumstances, including the specific characteristics of the digital asset(s) involved and the manner in which the loss occurred. For a detailed discussion of casualty and theft losses, see 527 T.M., *Loss Deductions*.

For purposes of §165, theft is broadly construed and includes, but is not limited to, larceny, embezzlement, and robbery.[1192] A taxpayer claiming a theft loss must prove that the loss resulted from a taking of property that was illegal under the law of the jurisdiction in which it occurred and was done with criminal intent, although proof of a conviction for theft is not required.[1193] Rev. Rul. 2009-9 holds that "[a] loss from criminal fraud or embezzlement in a transaction entered into for profit is a theft loss, not a capital loss, under §165."[1194] Theft losses may be limited to fact patterns where the fraudster had a spe-

[1184] *See, e.g., Durden v. Commissioner*, T.C. Memo 2012-140 ("Nothing in the statute or legislative history requires [the IRS] to look beyond the written acknowledgment when on its face the acknowledgment fails to provide the information required to substantiate a charitable contribution deduction."); *Mohamed v. Commissioner*, T.C. Memo 2012-152 (where charitable contribution deductions were denied for contributions to qualified charities of real estate valued at more than $18 million because of failure to comply with the substantiation requirements).

[1185] Notice 2014-21.

[1186] §170(f)(11)(C).

[1187] §170(f)(11)(A)(ii)(I). *See* CCA 202302012 (IRS advised that because cryptocurrency is not publicly traded security, cash, or any other type of property qualifying for exception to qualified appraisal requirements, taxpayers must provide qualified appraisal for charitable contributions exceeding $5,000; also, reasonable cause exception under §170(f)(11)(A)(ii)(II) will not excuse noncompliance with such requirements).

[1188] Reg. §1.170A-7(a).

[1189] Reg. §1.170A-7(b)(1).

[1190] Reg. §1.170A-1(e).

[1191] Reg. §1.165-7 (casualty losses), §1.165-8 (theft losses). For a detailed discussion of casualty and theft losses, see 527 T.M., *Loss Deductions*.

[1192] Reg. §1.165-8(d); *Bellis v. Commissioner*, 61 T.C. 354, 357 (1973), aff'd, 540 F.2d 448 (9th Cir. 1976); *Vennes v. Commissioner*, T.C. Memo 2021-93.

[1193] Rev. Proc. 2009-20; Rev. Rul. 72-112.

[1194] As discussed below, Rev. Rul. 2009-9, which discusses both fraudulent schemes generally and the narrow class of frauds known as Ponzi schemes in particular, was issued in tandem with Rev. Proc. 2009-20, which set forth safe harbor procedures for Ponzi losses. Accordingly, there is some uncertainty whether Rev. Rul. 2009-9 was intended to apply only to Ponzi schemes or to address both Ponzi and non-Ponzi frauds.

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cific intent to deprive the victim of the lost property and do not include losses that were indirectly caused by a theft not directly or immediately targeted at the victim.[1195]

Theft losses and casualty losses have different rules for determining the proper tax year in which to claim the loss. A casualty loss is generally treated as sustained during the tax year in which the loss is "evidenced by closed and completed transactions" and is "fixed by identifiable events,"[1196] while a theft loss is treated as sustained in the year in which the loss is discovered.[1197] However, the recognition of both casualty losses and theft loss is generally delayed while there exists a reasonable prospect of obtaining recovery of, or reimbursement for, the loss.[1198]

One particular type of loss is all but unique to cryptocurrency: the individual retains sole custody of the private key but loses all record of it through inadvertence or accident.[1199] For all practical purposes, cryptocurrency to which no one has the private key is permanently lost, both to the unfortunate owner and to anyone else. This intensely frustrating situation may result because a casualty event, such as a software or hardware failure or a flood or fire, destroys the only evidence of the private key; sometimes the private key is simply lost through inadvertence. In either case, the individual would seem to have a loss under §165 because the absolute loss of the cryptocurrency is "fixed by identifiable events" (the loss of the private key) and the permanent loss results in a "closed and completed transaction" in the broad sense of a transaction. Although this seems relatively clear in theory, actually substantiating the loss may be prohibitively difficult because it involves proving that the owner no longer has, and will never find, a short string of symbols that were under the exclusive control of the owner.

In the case of individuals, §165(c) expressly limits the deduction of losses under §165 to:

- losses incurred in a trade or business;
- losses incurred in any transaction entered into for profit, though not connected with a trade or business; and
- in general, loss arising from fire, storm, shipwreck, other casualty or theft.

In addition, the Tax Cuts and Jobs Act (TCJA)[1200] places temporary restrictions on the deduction of "personal casualty losses," which are defined as losses described in §165(c)(3).[1201] Under §165(h)(5), a personal casualty loss in excess of personal casualty gains otherwise deductible in a tax year beginning after December 31, 2017, and before January 1, 2026, may be deducted only to the extent it is attributable to a disaster declared by the President under §401 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.[1202] As a result, personal theft or casualty losses will rarely be deductible by an individual under §165(c)(3) but may be deducted under §165(c)(1), if incurred in a trade or business, or under §165(c)(2), if incurred in a transaction entered into for profit, though not connected with a trade or business.

Commentary: Scams, fraud and "rug pulls" are sometimes referenced by investors of new digital assets and protocols where the project does not go as planned and their investment is not recoverable. The factual situations vary, with occasional references to a "Ponzi scheme." The IRS issued guidance with respect to the tax treatment of losses from Ponzi schemes: Rev. Rul. 2009-9, which explains how a theft loss from a Ponzi scheme is determined and treated under the Code; and Rev. Proc. 2009-20, which provides a "safe harbor" method for determining the amount of a victim's year of discovery theft loss.[1203] Practitioners should be aware that "Ponzi scheme" is widely and inaccurately used to include any type of fraud, theft or unscrupulous practice. In fact, the term refers to a very specific type of investment fraud "that involves the payment of purported returns to existing investors from funds contributed by new investors."[1204] Both Rev. Rul. 2009-9 and Rev. Proc. 2009-20 set forth detailed definitions of the Ponzi schemes to which they apply.[1205] Accordingly, care should be exercised before concluding that a loss is attributable to a Ponzi scheme for federal tax purposes.

2. *Worthlessness and Abandonment*

"Abandonment" and "worthlessness" may both give rise to a §165(a) loss deduction under the proper circumstances; each employs a different underlying theory, and the elements of one are separate and distinct from the elements of the other.[1206] Although worthlessness can support a §165(a) loss without a finding of abandonment, and vice versa, the two concepts are significantly interrelated, and the presence of one often suggests or helps to establish the presence of the other.[1207] For a detailed discussion, see 527 T.M., *Loss Deductions.*

a. *Worthlessness*

If an asset becomes wholly worthless during a tax year, the taxpayer may be entitled to a loss equal to the taxpayer's tax basis in the asset. Establishing worthlessness requires both a subjective and objective factual analysis. The subjective test asks whether the specific taxpayer believed the property to be

[1195] CCA 200451030. *See also* CCA 200811016 (discussing *Commissioner v. Vietzke*, 37 T.C. 504 (1961) *acq.* 1962-1 C.B. 4; Rev. Rul. 77-215, Rev. Rul. 71-3810.

[1196] Reg. §1.165-1(b).

[1197] Reg. §1.165-8(a)(2).

[1198] Reg. §1.165-1(d) (casualty losses), §1.165-8(a)(2) (theft losses). See discussion below for special safe harbor rules for victims of Ponzi schemes.

[1199] This common fact pattern is frequently referenced in social media channels.

[1200] Pub. L. No. 115-97, §11044(a) (enacting §165(h)(5), effective for losses incurred in tax years beginning after December 31, 2017).

[1201] Reg. §1.165-1(h)(3)(B). Personal casualty losses are subject to the per casualty limitations in Reg. §1.165-1(h)(1).

[1202] 42 U.S.C. §5170.

[1203] For further discussion, see 527 T.M., *Loss Deductions.*

[1204] *See Cunningham v. Brown*, 265 U.S. 1 (1924); *In re Bernard L. Madoff Investment Securities LLC*, 12 F.4th 171, 179 (2d Cir. 2021) (quoting *Picard v. Gettinger (In re BLMIS)*, 976 F.3d 184, 188 (2d Cir. 2020), cert. denied, 209 L.Ed.2d 736 (2021)).

[1205] Rev. Rul. 2009-9 ("fraudulent investment arrangement"); Rev. Proc. 2009-20, §4.01 ("specified fraudulent arrangement").

[1206] *Echols v. Commissioner*, 935 F.2d 703 (5th Cir. 1991), rehg denied, 950 F.2d 209 (5th Cir. 1991); *Tucker v. Commissioner*, 841 F.3d 1241 (11th Cir. 2016); *Trigon Ins. Company v. United States*, 215 F.Supp.2d 687 (E.D.Va., 2002).

[1207] *Helvering v. Gordon*, 134 F.2d 685 (4th Cir. 1943), aff'g 46 B.T.A. 1201 (1942); *Tejon Ranch Company v. Commissioner*, T.C. Memo 1985-207; *MCM Investment Management, LLC v. Commissioner*, T.C. Memo 2019-158.

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worthless.[1208] The objective test looks to outside or observable indicia of worthlessness (i.e., an identifiable event or series of events establishing worthlessness).[1209] The loss relating to the worthless property must be taken in the tax year when the property becomes wholly worthless.[1210]

Observation: The worthlessness determination requires an evaluation of whether there is any reasonable expectation of recovery with respect to an asset, and such determination is not based simply on the fair market value of the asset. As a result, an exchange or a platform entering bankruptcy generally does not establish the worthlessness of the digital assets held through such exchange or platform if there is any reasonable expectation of some recovery. An additional consideration one might give to digital assets in the context of worthlessness involves DEXs and the seemingly insatiable risk appetite of some digital asset investors (or perhaps more aptly described as speculators in this context). Even if established centralized exchanges stop supporting the exchange of a given digital asset due to its failure, the asset may still be traded on DEXs. This unique scenario may make it difficult, or perhaps impossible for taxpayers to claim a deduction for worthlessness. Examples of digital assets that have gone through turmoil, been delisted on exchanges, but maintained activity on DEX markets, albeit at a fraction of the historic price, include Luna (of the Terra/Luna ecosystem) and FTT (the governance token issued by the now defunct crypto exchange FTX).[1211]

If a digital asset that is not considered indebtedness or a corporate security (within the meaning of §165(g)) becomes wholly worthless during a tax year, the character of the worthlessness loss generally is ordinary.

b. Abandonment

Reg. §1.165-2(a) allows taxpayers to claim a deduction under §165(a) for losses incurred in a business or in a transaction entered into for profit and arising from the sudden termination of the usefulness in such business or transaction of any nondepreciable property. The provision generally allows for taxpayers to recognize a loss with respect to nondepreciable property (such as a digital asset) held as part of a business or in a transaction for profit upon abandonment of such property.

Observation: Reg. §1.165-2(b) excludes losses sustained upon the sale or exchange of property, losses sustained upon the obsolescence or worthlessness of depreciable property, casualty losses, or losses reflected in inventories required to be taken under §471.

To claim an abandonment loss, the taxpayer must both intend to and actually abandon the property.[1212] An overt and observable act of abandonment is required, which could be evidenced by a closed and completed transaction.[1213] Neither nonuse of an asset nor a decline in its value is sufficient in themselves to abandonment.[1214] Because of the particular characteristics of digital assets, it is necessary to carefully evaluate what actions may establish such an overt and observable act.

Commentary: Depending upon the blockchain or ecosystem at issue, various procedures to deactivate or invalidate digital assets (collectively and loosely referred to as "burning")[1215] are possibilities for establishing abandonment of a digital asset, but the burning procedure in question must be carefully examined to determine whether it satisfies the requirements for abandonment under §165.

Moreover, in the case of intangible property, such as digital assets, the Tax Court has stressed that: (i) the taxpayer seeking an abandonment loss under §165 bears the burden of establishing ownership of the intangible property purportedly abandoned;[1216] and (ii) the act of abandonment must generally be accompanied by some "express manifestation" of the intention to abandon.[1217]

Other than in the case of an abandonment of a security (within the meaning of §165(g)), the character of an abandonment loss generally is ordinary unless the abandonment is, or is deemed to be, a sale or exchange.[1218]

F. Estate and Gift Tax Considerations for Crypto

1. Completing Transfers of Crypto

a. During Life

The federal gift tax is imposed upon the inter vivos transfer of property by an individual to a donee in exchange for less than full and adequate consideration in money or money's worth.[1219] As previously explained, cryptocurrencies and other digital assets are treated as property for U.S. federal income tax purposes.[1220] Consequently, general principles surrounding inter vivos transfers of property apply to these transfers. Typically, a gift is complete to the extent that the donor relinquishes all dominion and control over the transferred property. Transfers in trust can give rise to more complicated analysis.[1221] If the trans-

[1208] *Echols v. Commissioner*, 935 F.2d 703 (5th Cir. 1991); *Pilgrim's Pride Corp. v. Commissioner*, 779 F.3d 311, 317–318 (5th Cir. 2015); *Oak Harbor Freight Lines, Inc. v. Commissioner*, T.C. Memo 1999-291.

[1209] *MCM Investment Management, LLC v. Commissioner*, T.C. Memo 2019-158.

[1210] Reg. §1.165-2; *Mountcastle v. United States*, 226 F.Supp. 706 (M.D. Tenn. 1963); *Proesel v. Commissioner*, 77 T.C. 992 (1981); *Gordon v. Commissioner*, 46 BTA 1201 (1942).

[1211] *See* Shaurya Malwa and Jamie Crawley, *OKX Delists Terra's LUNA and UST Citing User Protection*, CoinDesk (May 11, 2023).

[1212] *United States v. S.S. White Dental Manufacturing Co.*, 274 U.S. 398 (1927); *A.J. Industries, Inc. v. United States*, 503 F.2d 660, 670 (9th Cir. 1974); *Standley v. Commissioner*, 99 T.C. 259 (1992).

[1213] *Beus v. Commissioner*, 261 F.2d 176, 180 (9th Cir. 1958); *United California Bank v. Commissioner*, 41 T.C. 437, 451 (1964).

[1214] *Haskell v. Commissioner*, 7 BTA 697 (1927); *Tucker v. Commissioner*, T.C. Memo 2015-184; *Zurn v. Commissioner*, T.C. Memo 1996-386.

[1215] See the Glossary of Terms in the Worksheets below for the definition of "burning."

[1216] *Greenberg v. Commissioner*, T.C. Memo. 2018-74, aff'd, 10 F.4th 1136 (11th Cir. 2021); *CRST, Inc. v. Commissioner*, 92 T.C. 1249, 1257 (1989), aff'd, 909 F.2d 1146 (8th Cir. 1990); *Citron v. Commissioner*, 65 T.C. 87, 89 (1991); *Milton v. Commissioner*, T.C. Memo. 2009-246.

[1217] *Citron v. Commissioner*, 97 T.C. 200, 208–209 (1991); *Milton v. Commissioner*, T.C. Memo 2009-246; *Investment Research Associates, Ltd. V. Commissioner*, T.C. Memo 1999-407.

[1218] *See generally*, 527 T.M., *Loss Deductions*.

[1219] Donative intent on the part of the donor is not an essential element for gift tax purposes; the application of gift tax is based on the objective facts and circumstances of the transfer rather than the subjective motives of the donor. *See* §2501(a)(1); Reg. §25.2511-1(g)(1). For further discussion of the gift tax, see 845 T.M., *Gifts* (Estate, Gifts, and Trusts Series).

[1220] *See* III.B., above.

[1221] *See Burnet v. Guggenheim*, 288 U.S. 280 (1933); *Estate of Sanford v. Commissioner*, 308 U.S. 39 (1939); *Smith v. Shaughnessy*, 318 U.S. 176

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feror retains any beneficial interest in or power to dispose of the property, or retains the power to revoke the gift, the gift may be wholly or partially incomplete.[1222]

Generally, to complete a transfer of cryptocurrency, the transferor initiates a transfer from their wallet to the wallet of the transferee. The transferee then uses their own private key to access the cryptocurrency as needed. Notwithstanding, if at the date of death, the transferor should, under any conceivable circumstance, be found to have access to the value of the transferred cryptocurrency or be able to prevent another's access to the transferred cryptocurrency, that value, as a general rule, will be included in the transferor's gross estate and the prior adjusted taxable gift would be obviated for purposes of computing the estate tax.[1223]

Commentary: While beyond the scope of this Portfolio, there are other situations that may give rise to the inclusion of previously transferred property in the transferor's gross estate, all of which arises from the transferor retaining some right or power over the digital asset that was the object of a prior transfer. To avoid such risks, the transferor should completely divest himself of any access capability to cryptocurrency once previously owned.

As discussed further below, the value of property transferred by gift should be determined based on the price at which the property would change hands between a willing buyer and a willing seller.[1224]

b. At Death

A tax is imposed on the transfer of the taxable estate of every decedent who is a citizen or resident of the United States.[1225] The value of digital assets owned by the decedent (or otherwise included in the decedent's gross estate because of an ineffective prior transfer or other circumstance) at the time of the decedent's death is includable in the decedent's estate.[1226] As such, executors of estates of individuals who owned cryptocurrencies at death will need to obtain information regarding those cryptocurrencies in order to administer the estate.[1227] This information includes: the various types of cryptocurrencies owned; list of every platform, exchange, or wallet where cryptocurrency may be stored; information on whether cryptocurrencies are staked; and all private keys and passwords.

Commentary: In the unlikely but unfortunate circumstance where the executor finds itself without the decedent's keys necessary to access the cryptocurrency and its corresponding value, whether a loss under §2054 is available to offset the value determined for the asset is unclear. Although a case of first impression, the real issue will be demonstrating that a loss has actually occurred during the settlement of the estate. Presumably if the keys were "lost" prior to the date of death, the value of the cryptocurrency would then have been zero at the date of death. Notwithstanding, demonstrating that there is in fact a loss may prove problematic since value would be recovered if the keys are ultimately rediscovered or recovered.

2. Estate and Gift Valuation of Cryptos

a. In General

General estate and gift valuation principles apply to cryptocurrencies and other digital assets.[1228] The general standard for estate and gift tax valuation of an asset is its fair market value, defined as "the price at which such property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell, and both having reasonable knowledge of relevant facts" on the appropriate measurement date.[1229] However, given the relatively novel character of digital assets and the corresponding lack of statutory, regulatory, judicial, and IRS guidance surrounding them,[1230] the appropriate methodology for valuing digital assets remains uncertain. Furthermore, the variety of products encompassed by the term "digital assets" suggests that differing methodologies could apply to specific types of digital assets. This section will focus on valuating cryptocurrencies, which, in the authors' experience at the time of this writing, is the most commonly encountered digital asset.

b. Methods of Valuation

(1) Publicly Published Price Value in a Cryptocurrency Exchange or Cryptocurrency Data Aggregator

Cryptocurrency exchanges publish daily exchange rates for a number of cryptocurrencies, providing a logical starting point for determining the fair market value for a particular cryptocurrency. While cryptocurrencies are not considered securities, they are nevertheless traded on one or more exchanges just as stocks and bonds are.

(1943). In TAM 9536002 and TAM 9535008, the National Office advised regarding the grantor of an irrevocable trust who retained a limited power to appoint trust property to family members. The IRS concluded that the grantor retained a power to change trust beneficiaries and, thus, because the grantor continued to possess dominion and control over the trust property, irrevocable transfers to the trust were not completed gifts. The IRS offered the following nonexclusive list of occurrences that would result in a completed gift: (i) the grantor exercises or relinquishes (to any extent) the power of appointment; (ii) any action by the trustees that would effectively terminate the grantor's power of appointment with respect to any part of the trust property (including the trustees' distribution of income or principal to anyone other than the grantor); and (iii) any action or failure to act by the trustees with respect to any of the trust property whereupon the property is no longer accounted for in the trust. For further discussion of transfers in trust, see 845 T.M., *Gifts* (Estate, Gifts, and Trusts Series).

[1222] Reg. §25.2511-2(b).

[1223] *See* §2038.

[1224] Reg. §25.2512-1.

[1225] §2001(a). For further discussion, see 800 T.M., *Estate Planning* (Estate, Gifts, and Trusts Series).

[1226] §2031. For further discussion, see 817 T.M., *Gross Estate — Section 2033* (Estate, Gifts, and Trusts Series).

[1227] Gerry W. Beyer & Kern G. Nipp, *Cyber Estate Planning and Administration*, SSRN, (Dec. 29, 2021).

[1228] For a discussion of general valuation principles applied in a gift tax context, which is generally consistent with estate tax valuation, see 845 T.M., *Gifts* (Estate, Gifts, and Trusts Series). Additionally, for a comprehensive overview of estate and gift valuation methodologies by asset type, see 822 T.M., *Estate, Gift, and Generation-Skipping Transfer Tax Returns and Audits* (Estate, Gifts, and Trusts Series).

[1229] See Reg. §20.2031-1(b) for estate tax purposes and Reg. §25.2512-1 for gift tax purposes. Note that for estate tax purposes only, if the conditions are met, valuing estate assets as of the date six months following the date of death is also an alternative if the outcome is a lower estate tax liability. *See* §2632.

[1230] See III., above, for a more complete discussion of relevant primary authority.

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Commentary: The Portfolio authors therefore consider the methodology for valuing stocks and bonds[1231] a reasonable analog in valuing cryptocurrencies. By analogy then, appropriate valuation conventions would be:

- Use of the mean of the highest and lowest quoted selling prices of such cryptocurrency on the valuation date;[1232] and
- Use of the prices from the exchange where the security is principally traded or, most likely, as a composite of all exchanges where the cryptocurrency is traded.[1233]

Furtherance of this analogy would also suggest that the description of a cryptocurrency on an estate or gift tax return should include similar elements as a stock. See 822 T.M. *Estate, Gift, and Generation-Skipping Transfer Tax Returns and Audits* (Estate, Gifts, and Trusts Series), for an itemized list of the appropriate elements to include in such description.

(2) Situations Which May Warrant a Professional Appraisal

When facts and circumstances indicate that the publicly published value of a cryptocurrency may not be representative of its fair market value, a professional valuation may be appropriate. For example, where an estate holds a quantity of cryptocurrency significantly higher than the cryptocurrency's trading volume, a blockage discount (or other marketability discount) may be arguable (but see discussion of *Estate of Matthew T. Mellon II vs. Commissioner*[1234] in XI.F.2.b.(3), below, for potential complications with respect to such an argument).

(a) Trading Limitations

Various trading limitations may apply to cryptocurrencies, raising the possibility of an associated valuation discount should such limitations apply. For example, the company issuing the cryptocurrency may issue a restriction on trading above a stated volume. The discussion of *Estate of Matthew T. Mellon II vs. Commissioner*[1235] in XI.F.2.b.(3), below, addresses this limitation in further detail.

Additionally, the high volatility of cryptocurrency pricing is frequently addressed by an exchange imposing trading and withdrawal restrictions. For example, during the aftermath of the collapse of the crypto trading platform FTX and the ensuing crypto market volatility, several other exchanges suspended trading and/or withdrawals of various cryptocurrencies.[1236]

Commentary: Should a decedent hold cryptocurrency that had been subject to a trading or withdrawal restriction as of the date of death, presumably such asset would carry a blockage discount. What would serve as the necessary empirical support for a specific level of discount or whether further analogizing to blockage discounts with respect to securities will be respected is an open question.

(b) Potential Application of §2703

Section 2703 provides that the value of any property will be determined without regard to: (i) any option, agreement, or other right to acquire or use the property at a price less than the fair market value of the property (without regard to such option, agreement, or right); or (ii) any restriction on the right to sell or use such property. However, there are exceptions to this general proscription. Specifically, §2703(b) provides that agreements that are bona fide business arrangements, not devices to transfer value to the holder's family, and similar in terms to arms-length agreements, will be respected for federal tax purposes. Importantly, the §2703(b) exception is deemed met if more than 50% of the value of property subject to the agreement is owned directly or indirectly (as defined in Reg. §25.2701-6) by individuals who are not members of the transferor's family but only if the property owned by such unrelated individuals is subject to the same agreement and to the same extent as the transferor (or in the case of an estate, the decedent).[1237]

Commentary: While the pseudonymous nature of cryptocurrency (i.e., transactions are identified only by wallet address) makes ownership of cryptocurrency necessarily opaque, there does not appear to be a case in which one family owns more than 50% of the value of a particular crypto asset. And while it is widely believed that most cryptocurrencies are sufficiently distributed in ownership, it may be prudent for taxpayers to document their family's ownership (as defined in Reg. §25.2703-1(b)(3))[1238] in the cryptocurrency and their lack of control with respect to the amount of the cryptocurrency outstanding to support the applicability of this exception.

However, there may be specific instances in which §2703(b) might apply. For example, locked wallets, in which a digital asset holder voluntarily and unilaterally employs a smart contract to prevent access to a wallet until a set date,[1239] are unlikely to meet the terms of the §2703(b) exception.

(3) Observations from Estate of Mellon

Estate of Matthew T. Mellon II vs. Commissioner (Estate of Mellon),[1240] which is pending before the U.S. Tax Court, may provide clarity as to the specific valuation principles that could apply to cryptocurrencies. In *Estate of Mellon*, the decedent held approximately $529.8 million Ripple XRP tokens at his death. The estate contended that all of the Ripple XRP tokens owned by the decedent were subject to contractual liquidity restrictions pursuant to a settlement agreement between the decedent and Ripple Labs, Inc. (Ripple), the issuer of Ripple XRP, prior to the decedent's death. The petition states that the restric-

[1231] These methodologies, which are consistent for both the estate and gift tax, are expressed in Reg. §20.2031-2 for the estate tax and Reg. §25.2512-2 for the gift tax.

[1232] These methodologies, which are consistent for both the estate and gift tax, are expressed in Reg. §20.2031-2 for the estate tax and Reg. §25.2512-2 for the gift tax.

[1233] For example, in the case of cryptocurrencies, see the Coinmarketcap website.

[1234] No. 18446-22 (T.C. 2022).

[1235] No. 18446-22 (T.C. 2022).

[1236] *See* Jocelyn Yang, *FTX Contagion Revives Dreaded 2022 Crypto Knell — the "Withdrawal Halt,"* COINDESK.COM (2022).

[1237] Reg. §25.2703-1(b)(3).

[1238] Reg. §25.2703-1(b)(3) defines family by reference to Reg. §25.2701-2(b)(5). For purposes of Reg. §25.2701-2(b)(5), family members include the transferor's spouse, any ancestor of the transferor or the transferor's spouse, the spouse of any such ancestor, and any lineal descendants of the parents of the transferor or the transferor's spouse.

[1239] Mark Hunter, *Is a Time Locked Bitcoin Wallet a Good Idea?* Fully Crypto (May 31, 2020).

[1240] No. 18446-22 (T.C. 2022).

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tions "limited the amount of [Ripple XRP tokens] that could be liquidated to 0.5% of the average daily trading volume for the prior week on certain specified exchanges." The estate, supported by a formal valuation of the Ripple XRP tokens, reported the value of the tokens subject to a 40% combined discount on the appraiser's estimated net asset value of the tokens on a freely tradeable basis. According to the petition, the discount accounted for: (i) the volatility "within the crypto industry and crypto tokens in general"; (ii) the uniqueness and volatility of the Ripple XRP tokens in particular; (iii) "blockage and other factors" applicable to the Ripple XRP tokens under generally accepted valuation principles; and (iv) the aforementioned contractual liquidity restrictions imposed on the decedent pursuant to the settlement agreement between him and Ripple.

In both the notice of deficiency and in its response to the petition,[1241] the IRS denied the 40% discount applied to the Ripple XRP tokens. It further disputed that the appraiser used accepted valuation principles in arriving at the value of the Ripple XRP tokens and alleged that any liquidation restrictions pursuant to the settlement agreement were invalid.

While the resolution of *Estate of Mellon* is as yet uncertain, the facts of the case remain instructive in the application of valuation principles to cryptocurrencies. For instance:[1242]

- The IRS did not challenge the appraiser's determination of the estimated net asset value of the tokens on a freely tradeable basis. The petition does not specify how such value was determined, but one assumes it was derived from the publicly published price value on a cryptocurrency exchange or an average of prices from a cryptocurrency data aggregator.

- While generally accepted valuation principles support a blockage discount for estates holding large tranches of a particular publicly traded security,[1243] the IRS disputed the application of such to the Ripple XRP tokens in the notice of deficiency.[1244]

  Commentary: Whether the Tax Court will concur with the IRS's conclusion remains to be seen, it should be noted that the principles behind blockage discounts appear analogous between cryptocurrencies and publicly traded securities.

- The IRS further disputed the validity of the liquidity restrictions pursuant to the settlement agreement between the decedent and Ripple, though it admitted that the parties had entered into such an agreement. The IRS's response asserts that the liquidity restrictions were invalid, though it does not explain its reasoning.

  Commentary: An analogy may be made here to the discount for lack of marketability that may apply to restricted shares of publicly traded securities.[1245] The appropriateness of such an analogy may be elucidated if the Tax Court addresses the liquidity restrictions with respect to the Ripple XRP tokens in *Estate of Mellon.*

3. Miscellaneous Considerations

Further considerations may arise when cryptocurrency is held by an estate. For example, consider a situation where the estate holds cryptocurrency that is held on an exchange not listed in USD. The value of the cryptocurrency will need to be converted to USD to arrive at the value for U.S. estate tax purposes. As discussed at III.A., above, the IRS classifies cryptocurrency as property. Thus, selling expenses arising from the need to raise funds to pay the estate tax would presumably follow Reg. §20.2053-3, although there has been no specific guidance released by the IRS on this matter.[1246]

The executor may also be required to analyze whether income in respect of a decedent (IRD) concepts apply to cryptocurrency. Again, as cryptocurrency is defined as property (see discussion in III.A., above), no elements comprising its value would likely be considered IRD as defined in Reg. §1.691-1(b), however, the specific characteristics of the digital asset in question may dictate otherwise.[1247]

G. Retirement Plans and IRAs

The idea of retirement plans, whether they are IRAs or employer-sponsored retirement plans investing in crypto investments, is a novel concept. IRAs and retirement plans are subject to a number of tax rules (discussed in detail in this section), but those rules do not necessarily contemplate this type of investment. The discussion below reflects the view that crypto assets are "property" based on the IRS's general guidance related to crypto assets, but the IRS has not yet, to date, published guidance that specifically discusses this in the context of IRAs or employer-sponsored retirement plans.

1. Issues Related to Crypto Investments in IRAs

a. In General

An individual retirement account (IRA) is an account set up by an individual to allow the individual to accumulate savings for retirement. An IRA can be either a "traditional IRA " or a "Roth IRA." Under a traditional IRA, an individual can make contributions that can be tax deductible if certain conditions are satisfied. If the conditions for deductibility are not satisfied, the individual may still contribute to the IRA, on an after-tax basis. Investment earnings of funds held in an IRA are generally not

[1241] *See Estate of Mellon*, No. 18446-22 (T.C. 2022).

[1242] *Estate of Mellon*, No. 18446-22 (T.C. 2022).

[1243] For a detailed discussion of blockage, see 831 T.M., *Valuation of Corporate Stock* (Estate, Gifts, and Trusts Series).

[1244] *Estate of Mellon*, No. 18446-22 (T.C. 2022).

[1245] *See* Rev. Rul. 83-120, *amplifying* Rev. Rul. 80-213, *amplifying* Rev. Rul. 77-287, *amplifying*, Rev. Rul. 65-193, *modifying* Rev. Rul. 59-60. *See also* Rev. Rul. 68-609. For further discussion of liquidity discounts applicable to restricted stock, see 822 T.M., *Estate, Gift, and Generation-Skipping Transfer Tax Returns and Audits* (Estate, Gifts, and Trusts Series).

[1246] For further discussion, see 840 T.M., *Estate Tax Deductions — Sections 2053, 2054 and 2058*, and 822 T.M., *Estate, Gift, and Generation Skipping Transfer Tax Returns and Audits* (Estate, Gifts, and Trusts Series). For further discussion of administration expenses and the reporting of such expenses on Form 706, including selling expenses, see 840 T.M., *Estate Tax Deductions — Sections 2053, 2054 and 2058*, and 822 T.M., *Estate, Gift, and Generation Skipping Transfer Tax Returns and Audits* (Estate, Gifts, and Trusts Series).

[1247] For a comprehensive discussion of identifying IRD, see 862 T.M., *Income in Respect of a Decedent* (Estate, Gifts, and Trusts Series).

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subject to taxation either to the owner of the IRA or to the IRA itself.[1248]

b. Issues Related to Making Contributions of Crypto Investments on an In-kind Basis

The rules for contributions to a traditional IRA are contained in §219 of the Code. Section 219(b) permits a taxpayer, in certain cases, to take a tax deduction for the amount contributed to an IRA. Except in the case of a rollover contribution, the contribution is limited to the lesser of "deductible amount"[1249] or the amount of the individual's "compensation" for the year.[1250] The "deductible amount" is $5,000 and is subject to annual inflation indexation.[1251] Individuals who are at least age 50 during the year, or who will attain age 50 during the year, may contribute an additional $1,000 as a catch-up contribution. The $1,000 catch-up contribution amount for the year has not been subject to inflation adjustment, but as a result of changes made by §108 of the SECURE 2.0 Act of 2022,[1252] the $1,000 catch-up contribution amount will become subject to inflation indexation, beginning in 2024.

Although §219(b) refers to the annual contribution limit as the "deductible amount" not every individual will be allowed to deduct all or part of this amount. Section 219(g) provides that if an individual is an "active participant" in an employer-sponsored retirement plan, the individual's tax deduction for IRA contributions is reduced, or eliminated, based on the individual's adjusted gross income. Individuals who cannot deduct contributions to a traditional IRA may contribute on a nondeductible basis.

Contributions to an IRA can also be made as a rollover contribution, from a distribution from an employer-sponsored retirement plan. Distributions from qualified plans, 403(b) arrangements, and eligible deferred compensation arrangements maintained by a state and local government, are eligible for rollover to an IRA.

Whether or not an individual may take a tax deduction for a contribution, the maximum amount that the individual can contribute to an IRA for a year is limited to the annual contribution limit contained in §219. If an individual contributes an amount in excess of the annual contribution limit (other than a rollover contribution), or an amount that cannot be counted against the limit, pursuant to §219(f)(6) the individual is subject to a 6% excise tax under §4973 on the amount of the excess contribution.

For purposes of §219, the term "qualified retirement contribution" is defined as "any amount paid in cash for the tax year by or on behalf of an individual to an individual retirement plan for such individual's benefit.[1253] Since the rules governing annual contributions (i.e., contributions other than rollovers), including the annual limits, are contained in §219, only contributions made in cash can be used by the individual for purposes of his or her annual contribution limit. An in-kind contribution cannot be used for the individual's annual contribution. If an individual makes an in-kind contribution of property, the value of the property is not applied against the annual contribution limit, though it is still considered a contribution. As a result, a contribution of property would be treated as an excess contribution to the IRA, and would therefore be subject to a 6% excise tax.[1254]

The IRS has indicated that cryptocurrencies are considered "property."[1255] Therefore, the in-kind contribution of cryptocurrency, like any other contribution of property, would appear to lead to the imposition of a 6% excise tax on the amount contributed.

Commentary: Section 4973 imposes the 6% excise tax every year that the excess remains in the IRA. In subsequent years, the amount of "excess" for this purpose is reduced by the contribution limit for that year, to the extent that the IRA owner has not made a separate contribution to the IRA for that year. Since contributions made in-kind are not applied against the dollar limit, meaning that the full value of the of the in-kind contribution is considered an excess, it is not clear that the subsequent year "wear-away" would apply in this case. This could mean that any in-kind contribution of cryptocurrency to an IRA will lead to a recurring 6% excise tax on the value of the amount at the time contributed. The only remedy for this would be a distribution of the amount, in-kind, under the rules of §408(d)(5).

c. Issues Related to IRAs Acquiring and Holding Crypto Investments

If an IRA acquires an investment in cryptocurrency other than through a direct in-kind contribution, consideration will need to be given to whether holding the crypto investment is a permissible investment of the IRA. Holding cryptocurrency in an IRA will implicate the same types of issues that any other investment will implicate. A detailed discussion of what investments are permissible for an IRA to hold, as well as the issues associated with holding certain investments by an IRA, are discussed further in 367 T.M., *IRAs.* The following contains a short summary of the various issues.

(1) Plan Asset Regulations

A common question faced by retirement plans (either employer-sponsored retirement plans or IRAs) is what constitutes an asset of the plan. Under regulations published by the Department of Labor,[1256] the asset of the plan includes the direct investment held by the plan, but does not generally include assets owned by the investment vehicle that the plan owns. To illustrate how this rule works, if an IRA owns an interest in an investment fund, the asset of the IRA would only be the IRA's interest in the fund, and would not extend to the assets that are

[1248] In certain cases, the income of an IRA will constitute unrelated business taxable income (UBTI). UBTI generated by an IRA is subject to unrelated business income tax (UBIT). If an IRA is subject to UBIT, it must file a return (Form 990-T) to report the taxable income. The tax liability is owed by the IRA and would be paid from the IRA's assets. For more information on the rules related to contributions to an IRA, the tax treatment of earnings of the IRA, permitted and prohibited IRA investments, and the tax consequences of distributions from an IRA, see 367 T.M., *IRAs.*

[1249] §219(b)(1)(A).

[1250] §219(b)(1)(B).

[1251] *See* §219(b)(5). For the current and prior years' deductible amounts, see Tables, Charts & Lists, *Comparison Chart of IRAs for Individuals.*

[1252] SECURE 2.0 Act of 2022, Pub. L. No. 117-328, Div. T, §108, effective for tax years beginning after December 31, 2023.

[1253] §219(e)(1).

[1254] §4973.

[1255] See discussions in III.B., and III.D., above.

[1256] 29 C.F.R. §2510.3-101.

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owned by the fund itself. However, if "benefit plan investors" hold, in the aggregate (considering all benefit plan investors in the fund) at least 25% of the investment interests in an entity, the plan assets are both the direct interest in the entity held by the plan, as well as the underlying assets of the entity in which the plans hold the interest. For this purpose, IRAs are included within the term "benefit plan investors."[1257] This issue may become relevant for an IRA depending on the nature of the crypto investment held by the IRA. Examples could include an IRA that holds governance tokens with rights to the assets in a DAO.

(2) Unrelated Business Taxable Income

Although IRAs are generally exempt from income taxation,[1258] certain types of income of an IRA may constitute unrelated business taxable income (UBTI), and thus, be subject to unrelated business income tax (UBIT).[1259] When IRAs receive income that constitutes UBTI, it usually happens in one of two ways. First, the IRA might invest in a partnership that is engaged in an active trade or business. In this case, the distributive share of the partnership's income that flows through to the IRA, as partner, could be UBTI in the hands of the IRA. Second, the IRA may acquire property that constitutes "debt financed" property. For this purpose, debt-financed property includes any property held by the exempt organization (including an IRA) with respect to which there is an acquisition indebtedness.[1260] In that case, a portion of income generated by that property will constitute UBTI to the IRA.[1261] If there is UBTI generated by an IRA that leads to a UBIT liability,[1262] the IRA must file Form 990-T and pay the UBIT. Any UBIT owed by an IRA is paid by the IRA, from IRA assets. With digital assets it is important to consider activities such as staking rewards, transaction fees, forks, or airdrops for UBTI.

(3) Prohibited Transactions

The rules on prohibited transactions are set forth in §4975 of the Code. The prohibited transaction rules prohibit certain transactions between a "plan"[1263] and a "disqualified person."[1264] An IRA is one type of "plan" for this purpose, meaning that transactions with an IRA can fall within the prohibited transaction rules.[1265] The list of "disqualified persons" includes a "fiduciary."[1266] The term "fiduciary" is defined to include any person who exercises discretionary authority over the plan, renders investment advice to the plan for a fee or has authority to do so, or has any discretionary authority over the plan. If the IRA is a self-directed IRA, the owner of the IRA will be fiduciary with respect to his or her IRA, and thus, a "disqualified person" with respect to the IRA for purposes of the prohibited transaction rules.

Section 4975(c) lists the transactions that are considered prohibited transactions as follows:

> Generally, the term "prohibited transaction" means any direct or indirect:
>
> (A) sale or exchange, or leasing, of any property between a plan and a disqualified person;
>
> (B) lending of money or other extension of credit between a plan and a disqualified person;
>
> (C) furnishing of goods, services, or facilities between a plan and a disqualified person;
>
> (D) transfer to, or use by or for the benefit of, a disqualified person of the income or assets of a plan;
>
> (E) act by a disqualified person who is a fiduciary whereby he deals with the income or assets of a plan in his own interest or for his own account; or
>
> (F) receipt of any consideration for his own personal account by any disqualified person who is a fiduciary from any party dealing with the plan in connection with a transaction involving the income or assets of the plan.

Commentary: Prohibited transaction issues could potentially arise with respect to crypto assets the same way that they can arise with any other type of asset. As a simple example, an IRA could not acquire an asset by purchasing it directly from the owner of the IRA, as that would be a prohibited sale or exchange between a plan and a disqualified person. Accordingly, the same rules would apply if an IRA acquired a crypto asset that was held by the IRA owner.[1267] If the crypto asset allowed the IRA owner to use the crypto asset held in the IRA, that would also be a prohibited transaction, as well as if the owner derived some financial benefit from the crypto asset. As an example of a prohibited use, assume an IRA owned a NFT that provided access to view a particular work of art. If the owner of the IRA personally viewed that work of art through an NFT owned by his/her IRA, the owner of the IRA has "used" an "asset of the plan." This would appear to be a prohibited transaction by virtue of §4975(c)(1)(D).

Normally, engaging in a prohibited transaction results in a 15% tax on the amount involved. However, if the prohibited transaction involves an IRA, the IRA is deemed to have distributed all of its assets to the owner as of the beginning of the tax year, effectively resulting in the loss of IRA status for the account.[1268] The scope of this loss is limited to the account involved.[1269]

The definition of "disqualified person" under §4975 includes parties other than a fiduciary with respect to the plan. In

[1257] 29 C.F.R. §2510.3-101(f)(2).

[1258] §408(e)(1).

[1259] Reg. §1.408-1(b).

[1260] Section 514(b) defines the term "debt-financed property." Section 514(c) defines the term "acquisition indebtedness for this purpose.

[1261] §514.

[1262] Under §512(b)(12), an exempt organization, including an IRA, that generates UBTI is permitted a specific deduction of $1,000 against the UBTI. Thus, if UBTI is less than $1000 in a year, the IRA will have no UBIT liability.

[1263] The term "plan" is defined for purposes of the prohibited transaction rules by §4975(e)(1).

[1264] The list of parties that qualify as a "disqualified person" for purposes of the prohibited transaction rules are provided in §4975(e)(2).

[1265] *See* §4975(e)(1)(B), §4975(e)(1)(C).

[1266] §4975(e)(2)(A).

[1267] As noted in XI.G.1.b., above, regarding contributions to IRAs, an in-kind contribution of a crypto asset to an IRA is effectively prohibited, as it would be viewed as a noncash contribution. Since the IRA owner cannot contribute a crypto asset as a contribution or sell an already-owned crypto asset to an IRA, the avenues for an IRA to acquire a crypto asset are limited.

[1268] §408(e).

[1269] Section 322(a) of SECURE 2.0, enacted as part of Division T of the Consolidated Appropriations Act of 2023, adds language to §408(e)(2)(A) that provides that each individual retirement plan of the individual shall be treated as a separate contract.

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certain cases, these parties can be disqualified persons with respect to an IRA alongside with the IRA owner, who is a fiduciary with respect to the IRA. If those parties are involved in a prohibited transaction, they would be liable for a 15% excise tax on the "amount involved."[1270]

(4) Investment in "Collectibles"

Section 408(m) provides that the acquisition by an IRA of any "collectible" shall be treated as a distribution equal in value to the cost of the collectible. Section 408(m) was added as part of the Economic Recovery Tax Act of 1981. "Collectible" for this purpose is defined by §408(m)(2) to include:

(A) any work of art;

(B) any rug or antique;

(C) any metal or gem;

(D) any stamp or coin;

(E) any alcoholic beverage; or

(F) any other tangible personal property specified by the Secretary for purposes of this subsection.

Section 408(m)(3) provides an exception to the general rule against investment in certain coins.

Section 408(m)(2) contains a list of items that are considered collectibles for purposes of the IRA rules, but further provides the IRS with authority to identify other items of "tangible personal property" that would be considered collectibles under §408(m). On January 23, 1984, the IRS issued proposed regulations addressing certain aspects of the change to the IRA rules.[1271] As part of that regulation package, the IRS issued Prop. Reg. §1.408-10, which defines a collectible as:

(1) any work or art;

(2) any rug or antique;

(3) any metal or gem;

(4) any stamp or coin;

(5) any alcoholic beverage;

(6) any musical instrument;

(7) any historical objects (documents, clothes, etc.); or

(8) any other tangible personal property which the Commissioner determines is a "collectible" for purposes of this section.

The list in the proposed regulation is the same as the list in §408(m), except that the list in the proposed regulation adds "historical objects" to the list of objects that are considered collectibles. The proposed regulation also indicates that the IRS has authority to identify other types of tangible personal property that is deemed to be a collectible.

The legislative history for Economic Recovery Tax Act of 1981[1272] identifies the reasons why Congress was concerned about collectibles held by retirement plans and why they enacted the new provision. House Report 97-201 states:

Reasons for Change

In recent years there has been increasing interest in investing retirement savings in collectibles (coins, antiques, art, stamp collections, etc.) under IRAs and individually-directed accounts in qualified plans. The committee is concerned that collectibles divert retirement savings from thrift institutions and other traditional investment media and that investments in collectibles do not contribute to productive capital formation.

Explanation of Provision

Under the bill, an amount in an IRA or in an individually-directed account in a qualified plan which is used to acquire a collectible would be treated as if distributed in the taxable year of the acquisition. The usual income tax rules for distributions from an IRA or from a qualified plan apply. A "collectible" is defined in the bill as any work of art, rug, antique, metal, gem, stamp, coin, alcoholic beverage, or any other item of tangible personal property specified by the Secretary.

Although the bill changes the tax treatment of the acquisition of collectibles under individually-directed accounts, it does not modify the tax-qualification standards of the Code for pension, profit-sharing, or stock bonus plans or the nontax rules of ERISA. For example, the tax qualification of a pension plan would not be adversely affected merely because an amount was treated as distributed to a participant under this provision at a time when the plan is not permitted to make a distribution to the participant.

The committee expects that Treasury regulations will provide for appropriate adjustments that will avoid double taxation of benefits under a plan where the collectible is not actually distributed.

In Notice 2023-27 the IRS is reexamining the tax treatment of NFTs, a type of digital asset, and looking into the question of whether an NFT should be treated as a "collectible" within the meaning of §408(m). The IRS is requesting comments on the treatment of an NFT as a collectible. The IRS further indicated that, pending further guidance, the IRS will apply a look-through analysis to NFTs. Under this look-through analysis, the question of whether an NFT is a collectible will be determined based on whether its underlying asset would qualify as a collectible under current guidance.

d. Issues Related to IRAs Making Distributions of Crypto Investments on an In-kind Basis

With any IRA, questions arise related to distributions, such as when are distributions allowed, when are distributions required, and what are the tax consequences of a distribution. The amount paid or distributed from an IRA is generally includable in taxable income (as discussed in more detail below). There is no rule that outright prohibits a distribution from an IRA prior to any specific time, though a distribution prior to the date the IRA owner attains age 59½ will generally result in

[1270] §4975(a).
[1271] *See* 49 Fed. Reg. 2794 (Jan. 23, 1984).
[1272] Pub. L. No. 97-34 (1981).

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a 10% additional tax on the amount distributed.[1273] If the IRA in question is a Roth IRA, a distribution that is not a "qualified distribution" will be subject to taxation and potentially the 10% addition to tax. Owners of traditional IRAs are subject to the qualified plan minimum distribution requirements and must commence receiving distributions no later than April 1 of the year following the year the owner attains age 73.[1274] Roth IRAs are not subject to minimum distribution requirements during the lifetime of the IRA owner.[1275]

Section 408(d)(1) provides that, except as otherwise provided in §408(d), any amount paid or distributed out of an individual retirement plan shall be included in gross income by the payee or distributee in the manner provided under §72. Under §408(d)(1), the amount distributed is subject to inclusion in gross income, but §408(d) is otherwise silent on whether property held by an IRA can be distributed on an in-kind basis. However, the rules regarding rollovers refer to the rollover of the amount received "including money or any other property."

Commentary: Because the IRS has articulated the view that cryptocurrency is "property" for income tax purposes, it would appear that it is permissible for the IRA to make an in-kind distribution of crypto assets. If an IRA makes an in-kind distribution of a crypto asset, the "amount paid" for purposes of determining the recipient's gross income would be the fair market value of the crypto asset at the time of distribution.

2. *Issues Related to Employer-sponsored Tax-qualified Retirement Plans Investing or Holding Crypto Assets*

a. *In General*

Many of the issues related to holding crypto investments in IRAs apply to holding crypto investments in employer-sponsored tax-qualified retirement plans (referred to below as "qualified plans"). However, there are issues that are unique to qualified plans. These issues, including both the similarities and differences, are discussed below.

The issues discussed below focus on select tax issues related to an employer-sponsored retirement plan investing in crypto assets. Other tax considerations may apply. In addition, because employer-sponsored retirement plans are established and maintained by an employer to provide retirement benefits to employees, those plans are generally subject to ERISA. The discussion below identifies certain ERISA issues that may apply in retirement plans that are subject to ERISA, but the discussion is not intended to present an exhaustive list of all issues that may arise with respect to such an investment.[1276]

b. *In-kind Contributions of Crypto Investments*

Unlike IRAs, there is no requirement that a contribution to a qualified plan be made only in cash. It is permissible for the employer to make an in-kind contribution of "property."

Commentary: Since the IRS views crypto assets as "property," there appears to be no prohibition on an employer who sponsors a retirement plan from making in-kind contributions of crypto assets.

When considering making a contribution of crypto assets to a qualified retirement plan, an employer will need to consider whether the contribution is within the applicable limits on contributions to plans. The employer will be concerned specifically about two limits. The first is the deduction limit under §404(a). The second is applicable to defined contribution plans and whether the allocation of the contribution to a specific participant's account will be within the limits on allocations under §415(c).[1277]

(1) *Limits on Deductions for Contributions*

The deduction limits under §404(a) vary depending on whether the plan is a defined benefit plan or a defined contribution plan. This section describes the deduction limits for only defined contribution plans.[1278] The deduction limit generally is equal to 25% of the compensation paid to the beneficiaries under the plan.[1279] "Compensation" for this purpose is defined by §415(c)(3)(C) and §415(c)(3)(D).[1280] When calculating compensation for this purpose, each plan participant's compensation is limited to the maximum amount that can be considered annually §401(a)(17).[1281] There is a special rule that provides that amounts contributed to a plan as elective deferrals are deductible and not counted against the regular deduction limits.[1282]

While §404(a) contains rules that define the amount that may be contributed to a qualified plan and deducted, neither §404(a) nor the regulations thereunder provide guidance on how a contribution of "property" (rather than cash) is counted against the overall deduction limits. Based on more specific guidance under the §415 rules (discussed below), it would be reasonable to conclude that the "amount" contributed in the case of an in-kind contribution of property would be equal to

[1273] §72(t); Reg. 1.408-1(c)(6).

[1274] §408(a)(6), §408(b)(3). The minimum distribution rules are contained in §401(a)(9) and the regulations thereunder. Section 401(a)(9) was amended by SECURE 2.0 to increase the age trigger for required minimum distributions from 72 to 73 and is applicable to individuals who had not attained age 72 as of the end of 2022. *See* SECURE 2.0, §107.

[1275] §408A(c)(4).

[1276] For further discussion of ERISA, see 361 T.M., *Reporting and Disclosure Under ERISA*.

[1277] The discussion in this section focuses on how to apply certain limitations on contributions to tax-qualified retirement plans in cases in which an employer makes an in-kind contribution of property to the plan. Such a discussion assumes that a contribution of property is permissible. However, if the plan in question is subject to the minimum funding requirements of §412 and §430, an in-kind contribution of property may result in a prohibited transaction under *Commissioner v. Keystone Consolidated Industries*, 508 U.S. 152 (1993). Since most defined contribution plans are not subject to minimum funding requirements, the issues raised in *Keystone* would not apply to these types of plans. The discussion in this section is intended for the types of plans that can receive an in-kind contribution of property that is not contrary to the holding in *Keystone*.

[1278] There are deduction limits that apply to contributions to defined benefit plans. The rules governing the deduction limits for contributions to defined benefit plans are found in §404(a)(1), with a cross reference to §404(o), which sets forth the deduction limits for contributions to single employer-defined benefit plans applicable after the effective date of the Pension Protection Act of 2006, Pub. L. No. 109-280. In addition to deduction limits, defined benefit plans are subject to minimum funding requirements under §412 and §430. A discussion of the issues associated with contributing crypto assets to a defined benefit plan will be discussed in the context of the funding requirements.

[1279] §404(a)(3)(A)(i)(I).

[1280] §404(a)(12).

[1281] §404(l). The limitations of §401(a)(17) apply for all purposes under the plan and are subject to annual indexation. For the current or previous dollar amount, see the Worksheets in 371 T.M., *Employee Plans — Deductions, Contributions and Funding*.

[1282] §404(n).

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the fair market value of the property on the date it is contributed.

If an employer makes a contribution that exceeds the deductible limit, the excess contribution is subject to a 10% excise tax.[1283] The amount of a contribution for a year that exceeds the deductible limits is carried over into the following year and reduces the next year's deductible limits.[1284]

(2) Limits on "Annual Additions"

The other issue related to the in-kind contribution of crypto investments relates to compliance with the annual addition limitations.[1285] In order for a plan to be qualified, "annual additions" to a participant's account must be no greater than 100% of the participant's "compensation" for the year or $40,000 (adjusted for cost-of-living increases).[1286] For purposes of applying the limitations under §415, annual additions include employer contributions to the plan, employee contributions, and forfeitures.[1287]

Commentary: While neither §404 nor the regulations thereunder specifically address an in-kind contribution of property to a plan,[1288] the regulations under §415 do speak to an employer's contribution of property to a plan. These regulations should be considered by an employer if it decides to make an in-kind contribution of a crypto asset to a plan. A contribution by the employer or employee of property other than cash is considered to be a contribution in an amount equal to the fair market value of the property the date that the contribution is made.[1289] The Treasury regulations provide the manner in which fair market value is determined, providing that fair market value is the price at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell, and both having reasonable knowledge of the relevant facts. Additionally, the regulations provide that a contribution of property may constitute a prohibited transaction within the meaning of §4975(c)(1).[1290]

As a general rule, a transaction between a plan and the employer, or a plan and an employee will not give rise to an annual addition. However, if an employer or employee transfers an asset to a plan in exchange for an amount that is less than the fair market value of the asset, the transaction may result in an annual addition to the affected participant's account in the plan.

c. Issues Related to Holding Crypto Investments in Retirement Plans

If a qualified plan acquires an investment in cryptocurrency other than through a direct owner contribution of the cryptocurrency in-kind, consideration will need to be given to whether holding the crypto investment is a permissible investment in the plan. Holding cryptocurrency in a qualified plan will implicate the same types of issues that any other investment will implicate. Many of the same issues that are implicated if an IRA holds a crypto investment are also implicated if a qualified plan holds a crypto investment.[1291] In some cases, the analysis is the same; however, in other instances, the issue is the same but the analysis differs.

(1) Defining the "Plan Asset"

A common question faced by retirement plans (either employer-sponsored retirement plans or IRAs) is what constitutes an asset of the plan. Under regulations published by the Department of Labor,[1292] the asset of the plan includes the direct investment held by the plan but does not generally include assets owned by the investment vehicle that the plan owns. To illustrate how this rule works, if a retirement plan owns an interest in an investment fund, the asset of the retirement plan would only be the retirement plan's interest in the fund, and would not extend to the assets that are owned by the fund itself. However, if "benefit plan investors" hold in the aggregate (considering all benefit plan investors) at least 25% of the investment interests in an entity, the plan assets are both the direct interest in the entity held by the plan, as well as the underlying assets of the entity in which the plans hold the interest.

Commentary: For employer-sponsored retirement plans, this will be an issue that should be considered. When considering this issue, the employer-sponsored retirement plan should consider investments in the same crypto asset by other retirement plan investors, including IRAs that might be invested in the same asset.

(2) Unrelated Business Taxable Income

Qualified retirement plans are exempt from taxation under §501(a). However, similar to IRAs, certain types of income generated by investments held by a qualified plan may constitute UBTI, and thus, be subject to UBIT.[1293] When a qualified plan receives income that constitutes UBTI, it usually happens in one of two ways. First, the qualified plan might invest in a partnership that is engaged in an active trade or business. In this case, the distributive share of the partnership's income that flows through to the qualified plan, as partner, could be UBTI in the hands of the qualified plan. Second, the qualified plan may acquire property that constitutes "debt financed" property. For this purpose, debt-financed property includes any property held by the exempt organization (including a qualified plan) with respect to which there is an acquisition indebtedness.[1294] In that case, a portion of income generated by that property will constitute UBTI to the qualified plan.[1295] If there is UBTI generated by a qualified plan that leads to a UBIT liability[1296] the qualified plan must file Form 990-T and pay the UBIT. Any UBIT owed by a qualified plan is paid by the qualified

[1283] §4972.

[1284] §404(a)(3)(A)(ii), §4972(c).

[1285] §415(c).

[1286] §415(c)(1)(A), §415(c)(1)(B), §415(d). For the current and prior indexed dollar amount in §415(c)(1)(A), see the Worksheets in 371 T.M., *Employee Plans — Deductions, Contributions and Funding.*

[1287] Reg. §1.415(c)-1(b)(1).

[1288] Reg. §1.404(a)-1.

[1289] Reg. §1.415(c)-1(b)(5).

[1290] See XI.G.2.b., above, for a discussion of the prohibited transaction issues associated with in-kind contributions to certain retirement plans.

[1291] *See* XI.G.1.c., above.

[1292] 29 C.F.R. §2510.3-101.

[1293] Reg. §1.408-1(b).

[1294] Section 514(b) defines the term "debt-financed property." Section 514(c) defines the term "acquisition indebtedness" for this purpose.

[1295] §514.

[1296] Under §512(b)(12), an exempt organization, including an IRA, that generates UBTI is permitted a specific deduction of $1,000 against the UBTI. Thus, if UBTI is less than $1000 in a year, the IRA will have no UBIT liability.

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plan, from its own assets. With digital assets it is important to consider activities such as staking rewards, transaction fees received, and property received from forks or airdrops for UBTI. Each of these activities could be characterized as ordinary income associated with a trade or business for tax purposes.

Commentary: Any type of qualified plan, either defined benefit or defined contribution, could acquire or hold an asset that generates UBTI when held by the plan. However, it is much more common for UBIT-generating assets to be held by defined benefit plans than defined contribution plans. There is no rule that prohibits a defined contribution plan from holding an asset that generates UBTI. However, such an asset is likely to arise (if it does arise) as a result of an individual participant's investment direction for the balance held in his or her account within the plan. If UBTI is generated by such an asset, any resulting UBIT would be allocated to (i.e., charged) to that participant's account. This adds a layer of administrative burden and may be complicated to explain to most plan participants. This is one reason why defined contribution plans tend to avoid UBIT-generating investments. By contrast, UBIT generated by a UBTI-generating asset held by a defined benefit plan is an obligation of the plan and not allocated to any specific participant and has no direct effect on the amount of a participant's benefit in the plan. This removes one important complication from having such an investment in the plan. Note that a UBIT-generating investment, like any other investment, must be evaluated for prudence, as discussed in detail below.

(3) Prohibited Transactions

The rules on prohibited transactions are set forth in §4975. The prohibited transaction rules prohibit certain transactions between a "plan"[1297] and a "disqualified person."[1298] A tax qualified retirement plan is included within the definition of "plan" for this purpose.[1299]

While both IRAs and tax-qualified retirement plans are both subject to the rules on prohibited transactions, there are differences in how those rules apply. Section 4975(a), which imposes an initial 15% tax on the "disqualified person" applies to both plans and IRAs. However, there is no counterpart in the qualified plan rules to §408(e). Thus, if the party to a prohibited transaction is the owner of an IRA (who is considered a "fiduciary" under §4975) engages in the prohibited transaction, the IRA will lose its status as an IRA, but a "fiduciary" with respect to a qualified plan who engages in a prohibited transaction with the qualified plan will not cause the qualified plan to lose its qualified status.

The full list of "disqualified persons" is set forth in §4975(e)(2), which includes a "fiduciary."[1300] The term "fiduciary" is defined to include any person who exercises discretionary authority over the plan, renders investment advice to the plan for a fee or has authority to do so, or has any discretionary authority over the plan. In the context of an IRA, this is almost always limited to the owner of the IRA. However, for a qualified plan, many other parties can become fiduciaries with respect to the plan, including (but not limited to) the employer who sponsors the plan.

Commentary: Prohibited transaction issues can arise with crypto assets the same way that they can arise with any other type of asset. As a simple example, a plan cannot acquire an investment by purchasing it directly from the employer who sponsors the plan, as that would be a prohibited sale or exchange between a plan and a disqualified person. The same would be the case if an IRA acquired a crypto asset that was held by the IRA owner.[1301] If the crypto asset allowed the employer who sponsored the plan to use the crypto asset held by the retirement plan, that would also be a prohibited transaction as well as if the owner derived some financial benefit from the crypto asset. As an example of a prohibited use, assume a qualified plan owned an NFT that provided access to view a particular work of art. If any disqualified person with respect to the plan viewed that work of art through an NFT owned by the plan, that party has "used" an "asset of the plan." This would be a prohibited transaction by virtue of §4975(c)(1)(D).

Employer-sponsored retirement plans are subject to the requirements of ERISA[1302] with certain exceptions.[1303] ERISA contains prohibited transaction rules that are very similar to the rules set forth in §4975 of the Code. The main difference is that, under ERISA, rather than using the term "disqualified person," ERISA refers to a "party in interest." The term "party in interest" is defined very similarly to "disqualified person" under §4975. The main effect of this is that if a qualified plan's investment in a crypto asset would result in a prohibited transaction, the parties involved may be subject to sanction by the Department of Labor related to their participation in the prohibited transaction. This is in addition to the excise tax that would be imposed by the Code.

(4) Investment in Collectibles

Section 408(m) provides that the acquisition by an IRA of any "collectible" shall be treated as a distribution equal in value to the cost of the collectible. Section 408(m) also applies to the investment in collectibles by certain types of qualified retirement plans and has the same implications as it would have for an investment by an IRA. For this purpose, "collectible" is defined the same way as it is for IRAs.[1304]

There are some differences in the scope of §408(m) for qualified retirement plans. First, the scope of the restriction is narrower for qualified plans. If an IRA invests in a collectible, that investment is treated as a taxable distribution to the IRA

[1297] The term "plan" is defined for purposes of the prohibited transaction rules by §4975(e)(1).

[1298] The list of parties that qualify as a "disqualified person" for purposes of the prohibited transaction rules are provided in §4975(e)(2).

[1299] §4975(e)(1)(A).

[1300] §4975(e)(2)(A).

[1301] As noted in XI.G.1., above, on contributions to IRAs, an in-kind contribution of a crypto asset to an IRA is effectively prohibited, as it would be viewed as a noncash contribution. Since the IRA owner cannot contribute a crypto asset as a contribution or sell an already-owned crypto asset to an IRA, the avenues for an IRA to acquire a crypt asset are limited.

[1302] Employee Retirement Income Security Act of 1974, Pub. L. No. 93-406.

[1303] Certain "governmental" or "nonelecting church plans" are not subject to ERISA. Other types of retirement plans are exempt from some provisions of ERISA, but not all. A full discussion of the scope of ERISA is beyond the scope of this Portfolio. For further discussion, see 374 T.M., *ERISA — Litigation, Procedure, Preemption and Other Title I Issues.*

[1304] See XI.G.1.c.(4), above, related to IRA investments in crypto assets for a complete discussion of the guidance related to the definition of "collectible" for §408(m) purposes.

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owner in all cases. This is not the case for qualified retirement plans. The restrictions on investing in collectibles apply only to individually-directed accounts in a qualified plan.[1305] Thus, the restrictions on investing in collectibles do not apply to defined benefit plans, which do not provide an ability of participants to direct the investment, and would also not apply to defined contribution plans if the participant does not have the ability to direct the investment of his or her account.

The second issue relates to the scope of the consequences of the investment being treated as a distribution. In the context of an IRA, treating the investment as a distribution from the IRA means that the IRA owner is subject to income taxation. By contrast, deemed distribution treatment for a qualified plan has the potential to be treated as a distribution for plan qualification purposes. If the distribution is made at a time when distributions are not permissible, the distribution treatment has the potential to jeopardize the tax-qualified status of the plan. However, in the case of an investment in collectibles that is within the scope of §408(m), §408(m)(1) states that such an investment will be treated as a distribution "for purposes of this section and section 402." Section 402 provides the rules related to the taxation of qualified plan benefits to participants and beneficiaries in those plans. Thus, the limitation to §402 means that, while the participant will be subject to taxation, the plan's qualified status would not be at risk.

(5) Fiduciary Issues

Most qualified retirement plans are subject to the fiduciary requirements of ERISA. A plan fiduciary is subject to the prudent man standard of care provided in §404(a)(1) of ERISA. The ERISA fiduciary duties include a requirement to administer the plan solely in the interest of participants and beneficiaries for the exclusive purpose of providing benefits to participants and beneficiaries, and to defray the reasonable expenses of administering the plan. Other elements of the fiduciary's duty to the plan include the requirement to diversify assets of the plan[1306] and to administer the plan in accordance with the plan's written terms, unless it is clearly not prudent to do so.[1307]

ERISA is administered by the Employee Benefit Security Administration (EBSA) of the Department of Labor. EBSA released Compliance Assistance Bulletin 2022-1, addressing the Department of Labor's concerns about 401(k) plans offering investments in cryptocurrencies. In the release, the Department of Labor expressed the following concerns about cryptocurrencies as plan investments:

- Cryptocurrencies are speculative and volatile in nature;
- The ability of plan participants to make informed investment decisions;
- Custodial and recordkeeping concerns;
- Valuation concerns; and
- The evolving nature of the regulatory environment related to cryptocurrencies

In light of these concerns, the Department of Labor announced their intention to conduct an investigative program directed at plans that offer investments in cryptocurrencies and to take appropriate action to protect the interests of plan participants and beneficiaries. According to the Department of Labor, plan fiduciaries can expect to be questioned about how they can square their actions in offering cryptocurrency investments with their fiduciary duties of loyalties, in light of the unique risks associated with cryptocurrencies.

d. Issues Related to In-kind Distribution of Crypto Assets

The taxation of distributions from tax-qualified retirement plans is governed by §402(a). Section 402(a) provides that the amount distributed from a qualified plan is included in income in the year distributed, under the rules of §72. The regulations under §402(a) specifically address the distribution of property by a qualified plan to a distributee. If property is distributed in-kind from a qualified plan to a distributee, the property distributed shall be taken into account by the distributee at its fair market value.[1308] Because the IRS has articulated the view that crypto assets are "property," an in-kind distribution of a crypto asset from a plan would result in taxable income to the recipient in an amount equal to the fair market value of the asset at the time distributed. The regulation further provides that beginning August 29, 2005, if property is distributed in exchange for consideration that is less than the fair market value of the property, the difference between the value of the property distributed and the consideration received by the plan will be considered a distribution for §402(a) purposes.[1309]

[1305] §408(m)(1).
[1306] ERISA §404(a)(1)(C).
[1307] ERISA §404(a)(1)(D).

[1308] Reg. §1.402(a)-1(a)(1)(iii).
[1309] On August 29, 2005, the IRS and Treasury published final regulations addressing certain tax issues arising from the distribution of insurance contracts from qualified retirement plans. *See* 70 Fed. Reg. 50,967 (Aug. 29, 2005). As part of this final regulation, the IRS amended the §402(a) regulations to address the tax consequences of a distribution of property in exchange for consideration less than its fair market value.

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XII. Compensation and Employee Benefits

A. *Introduction*

Employers routinely assess ways in which to attract, retain, and incentivize employees, especially in a highly competitive and evolving labor market. Companies with a blockchain protocol and native tokens are particularly interested in ways to deliver tokens to employees and other service providers. The interest is driven by many factors, such as the desire to provide compensation in the form of tokens, the demands of service providers to own and use tokens, getting tokens into a decentralized userbase that is familiar with the protocol, and the creation of a network for transaction validation and staking. Aside from regulatory rules and regulations, challenges abound for companies in terms of designing and operating token-based compensation programs in the framework of current tax statutes and regulations that do not specifically contemplate the issuance of digital assets or tokens as compensatory awards. In practice, it is often difficult to apply conventional and fundamental tax concepts and policies, including those articulated in legislative comments and IRS guidance, to such programs.

Although the focus of this chapter is on compensation arrangements that have developed as a leading practice among employers, a myriad of other types of arrangements and designs undoubtedly exist in the market. Each and every compensation program and award involving digital assets must be reviewed based on specific facts and circumstances, as all details are important in determining the appropriate income tax treatment.[1310]

Awards of incentive compensation that provide for the transfer of property are generally governed by §83. However, the grant of an award that conveys upon issuance only a legally binding contractual right for the delivery of property in the future may be treated as a deferred compensation arrangement subject to the rules under §409A, unless the award is settled in cash or property in the year the awards vests or otherwise meets an exception to §409A. Compensation arrangements utilizing tokens generally fall within these tax rules, either as a current transfer of tokens in exchange for the performance of services or a contractual right to receive tokens in a future year in exchange for the performance of services, requiring analysis under either §83 or §409A.[1311] The application of these two sets of rules is the focus of this chapter.[1312]

Commentary: In general, token-based compensation arrangements may operate in ways similar to more conventional compensatory arrangements that deliver property to service providers. The most analogous types of awards are equity-based compensation awards (e.g., restricted stock awards or restricted stock units) granted to service providers.[1313] As such, to correctly assess the tax treatment of token-based compensation awards, it is informative and helpful to consider the similarities and differences between token-based and equity-based compensation. Generally, both token-based and equity-based awards are designed to grant property to the service provider, which may be subject to restrictive conditions that must be satisfied in order to vest in the right to receive the property or conditions that limit the transfer of property. However, there are several differences in tax treatment between token-based and equity-based compensation.

Similar to restricted stock awards, restricted token awards (RTAs) generally provide for the transfer of tokens to a service provider in exchange for the performance of services. Most often property transferred under both types of awards are issued subject to restrictions that impose a substantial risk of forfeiture unless vesting requirements and/or conditions that prohibit transfer are satisfied. Likewise, similar to restricted stock units, restricted token units (RTUs) are a promise to deliver tokens in the future, upon satisfaction of vesting conditions.

Commentary: Notably, however, the complexity of assessing the tax treatment of token-based compensation arises not with respect to the fundamentals described above. The complications arise with respect to the inherent unique characteristics of tokens and other factors such as the manner of delivery, use of tokens, restrictive conditions, etc. For instance, merely defining §83 "property" subject to transfer under a token-based compensation arrangement may be a challenge in certain situations. In addition, token-based compensation awards may be subject to novel restrictive conditions or use rights that are not contemplated under equity-based compensation awards.

Aside from the basic award structures described above, token-based compensation may take different forms with seemingly endless variations of design and operation. The more divergent an arrangement is from conventional types of awards the more complex the tax analysis.

B. *Tax Fundamentals of Compensatory Awards*

1. *Section 83 Principles*

The rules for determining whether there is a transfer of property to a service provider, the amount and timing of income from the property transferred to a service provider (or a beneficiary thereof), and the amount and timing of the related deduction for the service recipient are described in §83. In general, property is not taxable under §83(a) until it has been transferred to a service provider and becomes substantially vested.[1314] The excess of the fair market value of the property at the time it becomes substantially vested over the amount (if any) paid for such property is includible in the gross income of the service provider as compensation for services for the tax year in which the property becomes substantially vested.

[1310] The foundational concepts discussed in this section are analyzed in greater detail in other Tax Management Portfolios. For a complete analysis of these concepts, see 384 T.M., *Restricted Property — Section 83*; 385 T.M., *Deferred Compensation Arrangements*; and 392 T.M., *Withholding, Social Security and Unemployment Taxes on Compensation.*

[1311] Employer payroll tax reporting and withholding obligations for employee compensation and the reporting of remuneration for non-employee service providers is outside the scope of this Portfolio. See 384 T.M., *Restricted Property — Section 83* and 392 T.M., *Withholding, Social Security and Unemployment Taxes on Compensation.*

[1312] See XI., above, for a discussion of the individual tax consequences of the disposition of digital assets.

[1313] This Portfolio uses "service provider" or "service recipient" as general terms to include employees and independent contractors.

[1314] §83(a), Reg. §1.83-1(a).

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a. Property

Section 83 does not define "property." The regulations provide, in part, that for purposes of §83 and the regulations thereunder, the term "property" includes real and personal property other than either money or an unfunded and unsecured promise to pay money or property in the future.[1315] The term also includes a beneficial interest in assets (including money) that are transferred or set aside from the claims of creditors of the transferor, for example, in a trust or escrow account.[1316]

Commentary: The IRS has not released explicit guidance as to whether virtual currency/tokens/digital assets are considered "property" for purposes of §83. However, as discussed in III.B. and in III.D., above, the IRS treats virtual currency as property for federal income tax purposes. Furthermore, proposed regulations would provide the basis of digital assets received in connection with the performance of services is determined by reference to the rules in Reg. §1.83-4(b) and §1.61-2(d)(2) for determining the basis of the digital assets received in exchange for compensation for services.[1317] Thus, it is arguably reasonable for one to conclude that items treated as property for federal income tax purposes would also be treated as property for purposes of §83. Outside of the direct transfer of virtual currency, as described under Notice 2014-2021 and the IRS FAQs, from a service recipient to a service provider, compensation arrangements that utilize unique delivery or custodial mechanisms, such as a wallet address with shared keys, may require careful analysis with respect to what constitutes §83 property and the tax positions in some instances may become more uncertain.

Commentary: Given the lack of specific guidance in this area, plan design and administration are particularly important with respect to how the property being transferred is defined and effectuated when compensating with tokens. For example, a plan may describe the transfer of property as the movement of tokens from a service recipient account or wallet address to a wallet address or escrow or similar account of a service provider so that the service provider holds a beneficial interest in the tokens transferred or set aside from service recipient, including the claims of creditors of the service recipient. Another example is where tokens are held within a smart contract programmed to apply certain restrictions to the token and holder of the token. In the ever-evolving landscape of token deployment and custodial arrangements, the use of smart contracts to hold and govern token utility may, in some instances, provide relief to employers burdened with administrative tasks, such as monitoring the vesting of tokens, and serve as an alternative to other custodial arrangements.

Commentary: In any compensation arrangement, special consideration should be given as to what constitutes property for §83 purposes. This is particularly important in terms of understanding the timing of when property is considered transferred, determining the fair market value of property, and assessing the tax treatment of the property. As a practical matter, individuals that make a §83(b) election to be taxed on the fair market value of tokens at the date of grant, may wish to consider describing the tokens as well as the instrument (e.g., the wallet or similar arrangement) in which the tokens are held in the event that a challenge, unlikely as it may appear, arises as to whether a token is considered property for purposes of §83. To the extent tokens are held in a wallet or similar arrangement which are set aside from the claims of creditors of a service recipient, this may provide additional substance to the argument that a transfer of property has occurred. However, given the numerous types of instruments and arrangements that exist in the marketplace to hold tokens, even this relatively simple concept is complex. The key is to consider the general principles of §83 as they may apply to any specific arrangement.

For further discussion of property for §83 purposes, see 384 T.M., *Restricted Property — Section 83.*

b. Transfer

For purposes of §83, a transfer occurs when the service provider acquires a beneficial ownership interest in the property. A "beneficial owner" is one who does not have legal title to property but has rights in the property which are the normal incidents of owning property, generally ignoring transferability and forfeiture risks.[1318] Ultimately, under §83, all facts and circumstances are relevant to determine whether a transfer occurs, including, among others, risk of loss.[1319]

For further discussion of a transfer for §83 purposes, see 384 T.M., *Restricted Property — Section 83.*

c. Substantially Nonvested Property

Property is not taxable under §83 until it is transferred and substantially vested.[1320] Property is substantially vested when it is either transferable or not subject to a substantial risk of forfeiture.[1321] The property is transferable if the person performing the services or receiving the property can sell, assign, or pledge (as collateral for a loan, or as security for the performance of an obligation, or for any other purpose) their interest in the property to any person other than the transferor of such property and if the transferee is not required to give up the property or its value in the event the substantial risk of forfeiture materializes.[1322] A substantial risk of forfeiture exists with respect to property where the rights in the property are conditioned, directly or indirectly, upon the future performance (or refraining from performance) of substantial services by any person, or the occurrence of a condition related to the purpose of the transfer if the possibility of forfeiture is substantial.[1323]

For further discussion of substantial risk of forfeiture for §83 purposes, see 384 T.M., *Restricted Property — Section 83.*

d. Nonlapse and Lapse Restrictions

Restrictions on property are generally considered in determining the tax treatment associated with the transfer of property and the valuation of the property. For example, a restriction that by its terms will never lapse (a "nonlapse restriction") is a

[1315] Reg. §1.83-3(e).

[1316] Reg. §1.83-3(e).

[1317] Prop. Reg. §1.1012-1(h)(1). For further discussion of the proposed regulations for determining basis of digital assets, see V.B.4., above.

[1318] Reg. §1.83-3(a)(1).

[1319] *See also* Reg. §1.83-3(a)(2) – §1.83-3(a)(7).

[1320] Reg. §1.83-1(a).

[1321] §83(a)(1).

[1322] Reg. §1.83-3(d).

[1323] Reg. §1.83-3(c)(1).

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permanent limitation on the transferability of property that will: (i) require the transferee of the property to sell, or offer to sell, such property at a price determined under a formula; and (ii) continue to apply to and be enforced against the transferee or any subsequent holder (other than the transferor).[1324] Although a nonlapse restriction standing alone is not a substantial risk of forfeiture or an indication that a transfer has not occurred, it may be relevant to determine the value of the property.[1325]

A lapse restriction is a restriction other than a nonlapse restriction. A lapse restriction may or may not include a restriction that carries a substantial risk of forfeiture.[1326] The effect of a lapse restriction that carries a substantial risk of forfeiture is that property subject to such restriction may be treated as substantially unvested and a compensatory event may be triggered once the property is vested.[1327]

For further discussion of nonlapse and lapse restrictions for §83 purposes, see 384 T.M., *Restricted Property — Section 83.*

e. Fair Market Value

Generally, fair market value for purposes of §83 has been interpreted to mean "the price at which property would change hands between a willing buyer and a willing seller, neither being under compulsion to buy or to sell and both having reasonable knowledge of relevant facts."[1328] In some situations, the determination of fair market value for digital assets that are not traded on a recognized exchange may be more complex than the valuation of equity due to the unique characteristics and market volatility associated with tokens. These factors often require more frequent valuations for tokens, as compared to equity, due to the fact that valuations may rapidly become stale. Companies that issue token-based compensation should be prepared with a plan of action to assess the fair market value of tokens as awards trigger taxable compensation in order to ensure that all payroll and employment tax withholding and deposit obligations are satisfied in a timely manner.

For further discussion of nonlapse and lapse restrictions for §83 purposes, see 384 T.M., *Restricted Property — Section 83.*

2. Section 409A Principles

Section 409A provides a comprehensive set of rules applicable to unfunded, nonqualified deferred compensation arrangements.[1329] Generally, §409A[1330] provides that amounts deferred by an employee or other service provider under a nonqualified deferred compensation plan are included in income when deferred, or, if later, when no longer subject to a substantial risk of forfeiture, unless the plan complies with requirements related to the timing of elections, distributions, and funding. If, however, a nonqualified deferred compensation plan fails to comply with §409A either in form or its operation, then, deferrals are includible in income at vesting and subject to an additional 20% federal income tax.[1331] Under some circumstances, a premium interest tax may also apply.[1332]

It is important to note that the concept of a substantial risk of forfeiture is integral to both §83 and §409A; however, the definition of a substantial risk of forfeiture is different for purposes of §83 and §409A. The definitions of a substantial risk of forfeiture under each section reflect different tax policy concerns and are intended to address the inherent differences between transfers of restricted property and promises to pay deferred compensation. For purposes of §409A, compensation is subject to a substantial risk of forfeiture if entitlement to the amount is conditioned on the performance of substantial future services by any person or the occurrence of a condition related to a purpose of the compensation, and the possibility of forfeiture is substantial.[1333]

For further discussion of substantial risk of forfeiture for §409A purposes, see 385 T.M., *Deferred Compensation Arrangements.*

a. Nonqualified Deferred Compensation

Any plan that provides for the deferral of compensation, unless specifically excepted, is considered nonqualified deferred compensation.[1334] Generally, an arrangement under which a service provider receives a legally binding right to compensation in one year, but the service provider is not in actual or constructive receipt of income until a later year, is considered deferred compensation.[1335] If a plan is nonqualified deferred compensation, then §409A imposes strict requirements on the form and operation of the deferred compensation arrangement. The plan must be in writing, and it includes all documents (e.g., award letter and plan rules) that determine the right to compensation.[1336] With respect to deferrals, if the plan permits an election as to the time and form of payment (or both), then the election must meet specific requirements.[1337] Distributions under the plan may only be made at one or more of the following payment dates: separation from service, disability, death, a specified time (or pursuant to a fixed schedule), change in control, or an unforeseeable emergency.[1338]

For further discussion of nonqualified deferred compensation plans, see 385 T.M., *Deferred Compensation Arrangements.*

b. Short-term Deferral Exception

One important exception to the definition of nonqualified deferred compensation is applicable to compensation that is

[1324] Reg. §1.83-3(h).

[1325] Reg. §1.83-3(h). *See also* Reg. §1.83-3(c).

[1326] Reg. §1.83-3(i).

[1327] §83(a); Reg. §1.83-1(a)(i). *See also Sakol v. Commissioner*, 574 F.2d 694, 696 (2d Cir. 1978), cert. denied, 439 U.S. 859, 99 S. Ct. 177, 58 L. Ed. 2d 168 (1978) (providing that "restrictions, other than permanent, nonlapsing restrictions, may not be considered in determining fair market value").

[1328] *United States v. Cartwright*, 411 U.S. 546 (1973).

[1329] For a detailed discussion of §409A, see 385 T.M., *Deferred Compensation Arrangements.*

[1330] Deferred compensation arrangements under §457A are not addressed in this Portfolio. However, compensatory token-based awards involving offshore service providers and/or recipients should consider if §457A is applicable. See 385 T.M., *Deferred Compensation Arrangements* for further discussion.

[1331] §409A(a)(1).

[1332] §409A(a)(1).

[1333] Reg. §1.409A-1(d).

[1334] §409A(d)(1).

[1335] Reg. §1.409A-1(a).

[1336] Reg. §1.409A-1(c).

[1337] Reg. §1.409A-2(a).

[1338] Reg. §1.409A-3(a).

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a "short-term deferral." Generally, compensation will not be treated as deferred under a nonqualified deferred compensation plan, provided that the service provider actually or constructively receives such payment on or before the last day of the applicable 2½-month period.[1339] The applicable 2½-month period is the period ending on the later of the 15th day of the third month following the end of the service provider's first taxable year in which the right to the payment is no longer subject to a substantial risk of forfeiture or the 15th day of the third month following the end of the service recipient's first taxable year in which the right to the payment is no longer subject to a substantial risk of forfeiture.[1340]

For further discussion of the short-term deferral exception, see 385 T.M., *Deferred Compensation Arrangements.*

c. Independent Contractor Exception

Section 409A provides an exception for independent contractors. In general, §409A does not apply to an amount deferred under a plan between a service provider and service recipient with respect to a particular trade or business in which the service provider participates if during the service provider's taxable year in which the service provider obtains a legally binding right to the payment of the amount deferred: (i) the service provider is actively engaged in the trade or business of providing services, other than as an employee or as a member of the board of directors of a corporation (or similar position with respect to an entity that is not a corporation); (ii) the service provider provides significant services to two or more service recipients to which the service provider is not related and that are not related to one another; and (iii) the service provider is not related to the service recipient.[1341] If each of these requirements is met, then §409A would not apply to deferred compensation arrangements for independent contractors.

For further discussion of the independent contractor exception, see 385 T.M., *Deferred Compensation Arrangements.*

C. Common Types of Token-Based Compensatory Awards

1. Restricted Token Awards

In its most basic form, the grant of a restricted token award (RTA) is the transfer of substantially nonvested property.[1342] This means that restrictions applied to the property impose a substantial risk of forfeiture and/or render the property nontransferable. Generally, awards are subject to time and/or performance-based vesting conditions. In addition, RTAs may be issued with conditions that may be considered §83 lapse or nonlapse restrictions. For example, a common lapse restriction may be a "lockup" period during which the service provider may not sell tokens, although the tokens are no longer subject to a substantial risk of forfeiture. This is a simple example of a lapse restriction that would be ignored for purposes of determining the timing of taxation of the award and the fair market value of the award.

Commentary: Assessing the impact of other types of lapse and nonlapse restrictions as they may apply to token compensation is complex and difficult to navigate given that the restrictions may not be of the same type and nature addressed in Treasury or IRS guidance. Analyzing the impact of such restrictions is further complicated by the limited manner in which nonlapse and lapse restrictions have been addressed in the body of case law pertaining to §83. For instance, the IRS has generally interpreted nonlapse restrictions as those that require the transferee of the property to sell, or offer to sell, such property at a price determined under a formula. In general, the concept of lapse and nonlapse restrictions may be easily applied in the context of equity-based compensation awards. However, other more novel types of restrictions may apply to token awards, and these restrictions may not neatly fit within the statutory definitions for lapse and nonlapse restrictions, and as generally interpreted by the IRS. For instance, a service recipient may want to encourage staking of tokens in order to promote the security of the blockchain protocol, and as a result, may require that tokens can only be used by an employee to perform staking activities following satisfaction of service-based vesting conditions. In that instance, a question arises as to the nature of the restriction and the impact on the tax treatment of the award. Accordingly, the application of restrictions to token awards must be carefully assessed to properly assess the tax treatment of such awards.

a. Taxation of Service Provider

(1) Section 83(b) Elections

As discussed above, generally when the service provider becomes vested in that property transferred in connection with the performance of services, the service provider must include in gross income the excess of the fair market value of the property over any amount paid for the property. However, if property is transferred in connection with the performance of services, the person performing such services may elect to include in gross income under §83(b) the excess (if any) of the fair market value of the property at the time of transfer determined without regard to any lapse restriction over the amount (if any) paid for such property, as compensation for services.[1343] Therefore, property with respect to which this election is made is includible in gross income as of the time of transfer, even though such property is substantially nonvested at the time of transfer, and no compensation will be includible in gross income when the property becomes substantially vested.[1344] The fact that the service provider has paid full value for the property transferred does not preclude the use of the election. In certain instances, it may be advisable for the holder of restricted property to consider filing a §83(b) election even if the individual has paid an amount equal to fair market value of the property acquired.[1345]

[1339] Reg. §1.409A-1(b)(4)(i).

[1340] Reg. §1.409A-1(b)(4)(i)(A).

[1341] Reg. §1.409A-1(f)(2).

[1342] Employer payroll tax reporting and withholding obligations for employee compensation and the reporting of remuneration for non-employee service providers is outside the scope of this Portfolio. For further discussion, see 384 T.M., *Restricted Property — Section 83* and 392 T.M., *Withholding, Social Security and Unemployment Taxes on Compensation.*

[1343] Reg. §1.83-2(a).

[1344] Reg. §1.83-2(a).

[1345] The use of a substantially nonrecourse, employer-provided loan to purchase the property may raise additional issues that are outside the scope of this Portfolio. For further discussion regarding the acquisition of property using substantially nonrecourse debt, see 384 T.M., *Restricted Property — Section 83.*

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For instance, this may be advisable if property is subject to certain repurchase rights that may constitute a substantial risk of forfeiture.

If this election is made, the compensatory event occurs at transfer, with any subsequent appreciation in the value of the property taxable as capital gain upon disposal of the property.[1346] In order to compute the gain or loss upon disposal of the property after the election is made, its basis will be the amount paid for the property increased by the amount included in gross income under §83(b).[1347]

If property for which a §83(b) election is made is forfeited while substantially nonvested, the forfeiture is treated as a sale or exchange upon which there is realized a loss equal to the excess (if any) of: (i) the amount paid (if any) for such property; over (i) the amount realized (if any) upon such forfeiture. If the property is a capital asset, the loss is a capital loss. A sale or other disposition of the property that is in substance a forfeiture, or is made in contemplation of a forfeiture, is treated as a forfeiture.[1348]

Commentary: Section 83(b) elections can be a valuable tool if the fair market value of tokens is low at grant and the value of tokens is expected to significantly appreciate. By making the election, ordinary income tax treatment can be applied on the grant value such that the service provider can receive more preferential capital gains treatment on upside appreciation upon disposition of the token. There is no requirement that a taxpayer make a §83(b) election. Any election must be made within 30 days from grant and in accordance with specific requirements.[1349] In the event that a service provider makes a §83(b) election and subsequently forfeits nonvested property for an amount less than the compensation recognized at the grant date, the risk to the service provider is that, once the amount of fair market value of the tokens at grant are taken into gross income, the tax paid cannot be recovered except to the extent the service provider can take a capital loss upon disposition and only to the extent the amount paid for the property exceeds the amount realized on disposition. For this reason, each individual recipient of a grant should carefully consider the tax implications associated with a §83(b) election and consult with his or her individual tax advisor as needed.

b. Taxation of Service Recipient

In the case of a transfer of property to which §83 applies, a deduction is available to the service recipient for whom services were performed in connection with the property transfer. The deduction is equal to the amount included in the gross income of the service provider and is allowable for the taxable year of the service recipient in which or with which ends the taxable year in which such amount is included in the gross income of the service provider.[1350] If property is substantially vested upon transfer, the service recipient is allowed a deduction in accordance with their method of accounting.[1351]

If a service provider makes a §83(b) election, then the service recipient's deduction would coincide with the timing of the election and income recognition by the service provider.

Commentary: It is important to highlight a difference in the tax treatment of a service recipient with respect to the transfer of service recipient stock as compared to tokens. Under §1032, special rules provide that no gain or loss shall be recognized by a corporation on the receipt of money or other property in exchange for stock of such corporation. In part these rules allow a corporation to deliver equity to service providers under equity-based compensation plans without triggering a gain or loss recognized by the corporate issuer of the stock. Similar rules do not apply to tokens delivered to service providers that participate in token-based compensation arrangements. Instead, service recipients are subject to general tax rules that may trigger the recognition of capital gains or losses depending on the nature of a specific transaction. Given the propensity for significant fluctuations in token values, the potential impact of the recognition of capital gains or losses related to token-based compensation is an issue that warrants careful consideration in the planning for, and design and operation of, such compensation arrangements.

c. Dispositions of Restricted Property

To the extent that §83 property transferred to a service provider is subject to restriction, any subsequent arm's-length or non-arm's-length disposition, transfer, or forfeiture of the restricted property must be examined in order to assess the tax treatment of the service provider and service recipient.[1352]

For further discussion of a §83(b) election, see 384 T.M., *Restricted Property — Section 83.*

2. Restricted Token Units

Commentary: Similar to a restricted stock unit, RTUs granted to a service provider represent a contractual promise by the service recipient to transfer property in the future to the service provider following the attainment of time and/or performance-based conditions. Generally, under the RTU agreement, a specific number of tokens will be transferred to the employee in the future when the vesting conditions have been satisfied. For example, a typical RTU may provide that a specific number of tokens will be transferred to the service provider upon vesting. Often the transfer occurs immediately after vesting; however, the RTU may provide that transfer will occur at a later date. In this scenario, there is no transfer of property at grant, and no ability to make an election under §83(b) at grant of the RTU.[1353]

To the extent that tokens transferred to a service provider in settlement of an RTU are subject to any type of restrictions, the restrictions must be reviewed to evaluate the impact, if any, on the taxation of the property. Any type of nonlapse or lapse restrictions must be analyzed to determine the impact, if any, on the valuation of the token. For instance, other than service-based and performance-based conditions, the tokens may be subject to additional restrictions, such as a limited ability to

[1346] §83(b)(1); Reg. §1.83-2(a).
[1347] Reg. §1.83-2(a).
[1348] Reg. §1.83-2(a).
[1349] §83(b)(2); Reg. §1.83-2(b); Rev. Proc. 2012-29.
[1350] §83(h); Reg. §1.83-6(a).
[1351] Reg. §1.83-6(a)(3).
[1352] For further discussion, see 384 T.M., *Restricted Property — Section 83.*
[1353] §83(i)(7); Reg. §1.83-3(e). *See also* AM 2020-004.

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use or transfer the token after the service-based and/or performance-based condition has been satisfied.

Depending on the terms of an RTU, the award may be treated as nonqualified deferred compensation subject to §409A or otherwise exempt from §409A as a short-term deferral.

a. Taxation of the Service Provider

For the service provider, the tax treatment of an RTU is analogous to a restricted stock unit. Upon grant of the RTU, there is no property transfer to the service provider as there is merely a promise to deliver property in the future. As a result, the grant of the RTU is not a taxable event.[1354] Instead, there is taxable income when property (e.g., a token) is delivered in settlement of RTUs under the principles of §83 and the corresponding regulations.[1355] As discussed above with respect to RTAs, the fair market value of the fully vested property (e.g., the token) at the time of transfer is considered taxable income to the service provider.[1356] If the token is subject to restrictions, then review of the restrictions is necessary to determine whether they are lapse or non-lapse restrictions, as discussed above, that may affect timing and/or the amount of income inclusion.

Commentary: The preceding discussion assumes that the RTU fits within the short-term deferral exemption under §409A or, if not exempt, that the RTU is compliant with §409A requirements. As an example, the RTU may be designed to deliver tokens when a service-based condition is satisfied, with forfeiture on a separation from service prior to the satisfaction of the service-based condition and no ability to receive a deferred payment, such that the RTU appears to satisfy the short-term deferral exemption to §409A. However, careful review of the RTU, both in form and operation, is recommended to determine the application of §409A. To the extent the RSU is not an exempt short-term deferral and noncompliant with §409A requirements, then, amounts that constitute deferrals are includible in income at vesting and subject to an additional 20% federal income tax. Under some circumstances, a premium interest tax may also apply.

For further discussion of the §409A requirements, see 385 T.M., *Deferred Compensation Arrangements.*

b. Taxation of the Service Recipient

A service recipient is entitled to a tax deduction equal to the amount included as compensation in the gross income of the service recipient.[1357] Assuming that the RTU is not deferred compensation, the timing rules under Reg. §1.83-6(a)(3) apply to the employer tax deduction. Otherwise, the deduction timing rules under §404(a)(5) may apply.[1358]

[1354] §83, §451; Reg. §1.451-2. *See also* PLR 7952082, PLR 8019053, PLR 8335019, PLR 9840035.

[1355] *See* §83, §451; Reg. §1.451-2. For purpose of this Portfolio, it is assumed that cash would not be delivered to settle an RTU.

[1356] §83(a); Reg. §1.83-1(a).

[1357] §83(h). *See also* PLR 7952082, PLR 8019053, PLR 8335019, PLR 9840035.

[1358] To the extent the deduction is covered by §404(a)(5), see 385 T.M., *Deferred Compensation Arrangements.*

D. Unique to Token-Based Compensation Arrangements — Commentary

As evidenced by the complex issues that accompany the grant of relatively simplistic token-based compensation in the form of RTAs and RTUs, designing and operating any token-based compensation plan requires careful consideration and planning. The mere distinction between delivering tokens as opposed to equity presents its own set of challenges. A few of these challenges are discussed below.

1. Issuance of Options over Tokens

A primary example is the complication associated with issuing options over tokens to service providers. Stock options are treated as stock rights exempt from §409A if applicable requirements are satisfied. A key requirement is that stock options must be issued over service recipient common stock. Options over tokens cannot satisfy this basic requirement and, therefore, are not afforded the same exemption. Accordingly, token options must either be structured as a short-term deferral exempt from §409A or structured to comply with §409A. Structuring an option to meet the short-term deferral exception means that the award would need to be exercised within the relevant short-term deferral period. If the short-term deferral exception is not satisfied, the options must be issued in compliance with §409A, which will require exercisability of the option to be limited to the permissible payment events under Reg. §1.409A-3(a), and generally within the year in which such event occurs (or, if later, by the 15th day of the third month following the date such event occurs).[1359] In other words, the options must be structured without the inherent rights associated with an option.

Notably, options over tokens issued to independent contractors may be exempt from §409A. Accordingly, from a tax perspective, the issuance of options over tokens may be an attractive manner to deliver token compensation to independent contractors. However, not all contractors are exempt from §409A, and each independent contractor should assess their own exempt status.[1360]

2. Liquidity Considerations

A relatively common practice in designing a restricted stock unit (RSU) used by privately held companies is that the RSUs are granted to employees subject to time and/or performance-based vesting conditions along with a condition that a "liquidity event" must occur within a designated period after the lapse of the time and/or performance-based vesting conditions in order for the RSU to be settled and shares delivered to the award holder. Private companies utilize these types of arrangements for various reasons, but a primary reason is that the settlement of an RSU with illiquid stock poses a challenge to employers to satisfy payroll tax reporting and withholding obligations if stock cannot be sold and a challenge to employees to pay taxes on shares that cannot be sold. For RSUs, these "liquidity events" are often defined as a change in control of the stock issuer or public offering of the stock of the issuer (e.g.,

[1359] *See* Reg. §1.409A-3(a), §1.409A-3(d).

[1360] *See* Reg. §1.409A-1(f)(2).

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an IPO). Generally, with respect to RSUs, the vesting conditions and the liquidity event must each constitute a substantial risk of forfeiture[1361] for purposes of §409A in order to allow the arrangement to be treated as a short-term deferral exempt from §409A. Barring this exception, these types of arrangements would generally fail to comply with §409A due to the fact that a public offering of stock/IPO is not a permissible payment event under Reg. §1.409A-3(i)(5) or otherwise under the regulations. The determination of whether a condition constitutes a substantial risk of forfeiture is based on facts and circumstances.[1362]

In the context of RTUs, it is often difficult to identify similar types of liquidity events that would constitute a substantial risk of forfeiture past the point that time and/or performance-based vesting conditions lapse and defer the taxation of awards for income tax purposes with respect to the short-term deferral exemption.[1363]

3. Payroll Tax Reporting and Withholding

Employers should consider the payroll tax reporting and withholding implications when planning for the grant, vesting, and settlement of token-based compensation. For example, to the extent that tokens issued to employees as compensation are illiquid or the token valuation may be easily impacted by the volume of tokens on the market or activity in the token market, the ability to satisfy employer payroll tax reporting and withholding obligations may be impacted. To the extent token awards cannot be net settled or tokens sold to cover tax obligations, an employer will need to consider whether it has sufficient funds, including from the employee, to meet its obligation for all applicable payroll tax reporting and withholding related to token-based compensation delivered to employees.

To determine its payroll tax reporting and withholding obligation, an employer may also need to consider how to compute the amount of compensation that is taxable to the employee at the relevant tax point. As there may be significant volatility associated with token value, it is likely that the fair market value of the token may change from employee to employee, or event to event, depending upon the particular facts and circumstances. Each time there is a compensatory event, the employer will need to be mindful that the token value may have changed and have a process in place to assess the fair market value for tax purposes.

For further discussion of employer payroll tax reporting and withholding obligations for employee compensation and the reporting of remuneration for non-employee service providers, see 384 T.M., *Restricted Property — Section 83* and 392 T.M., *Withholding, Social Security and Unemployment Taxes on Compensation.*

4. Grants of Awards Prior to Token Generation Event

Early in the formation of a blockchain protocol and prior to a token generation event, an employer may wish to allow investors and employees to acquire rights to future tokens. Often such rights may require a de minimis investment. Although such arrangements for investors and employees may be similar, the tax analysis for employees may be substantially different than that for an investor. For instance, the rights granted to an employee may be construed as the grant of an option or promise to deliver tokens in the future and fail to fall within an exemption to §409A or satisfy the requirements to comply with §409A. For these reasons, these types of arrangements require careful analysis.

For further discussion of the §409A requirements, see 385 T.M., *Deferred Compensation Arrangements.*

[1361] Reg §1.409A-1(d)(1).

[1362] Reg. §1.409A-1(d).

[1363] For further discussion of the short-term deferral exemption under §409A, see 385 T.M., *Deferred Compensation Arrangements.*

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TABLE OF WORKSHEETS

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