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One Elk Street, Albany, New York 12207 PH 518.463.3200 www.nysba.org

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Report No. 1461

April 18, 2022

The Honorable Lily Batchelder
Assistant Secretary (Tax Policy)
Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, DC 20220

The Honorable Thomas C. West, Jr.
Deputy Assistant Secretary
Department of the Treasury
1500 Pennsylvania Avenue
NW Washington, DC 20220

Re: Report No. 1461 – Report on Cryptocurrency and Other Fungible Digital Assets

Dear Ms. Batchelder and Mr. West:

I am pleased to submit our Report No. 1461 to request guidance with respect to a number of matters relating to the tax treatment of cryptocurrency and other fungible digital assets. This Report supplements a prior report we submitted to the Internal Revenue Service and the Department of the Treasury dated January 26, 2020 (Report No. 1433), which commented on certain guidance issued by the Internal Revenue Service on the tax treatment of cryptocurrency, including the treatment of hard forks.

In recent years, the market for digital assets has evolved in dramatic ways, including exponential growth in both the aggregate value of digital assets and the volume of transactions in digital assets as well as the broad adoption of newer digital asset classes like stablecoins and proof-of-stake cryptocurrencies. In this Report, we have focused on the areas we believe are most in need of guidance and where the path to issuing such guidance is reasonably straightforward. The Report addresses the following topics:

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- The general characterization of cryptocurrency for federal income tax purposes as commodities, securities or a type of asset class that is neither commodities nor securities.
- The application of the commodities trading safe harbors under section 864(b)(2)(B) to cryptocurrency.
- The application of the straddle rules of section 1092 to fungible digital assets.
- The application of the mark-to-market provisions of sections 475(e) and 475(f) for commodities dealers and traders to cryptocurrency.
- The recognition of gain or loss on lending cryptocurrency.
- The federal income tax characterization of certain U.S.-dollar pegged stablecoins.
- The federal income tax treatment of “wrapped” cryptocurrency.
- The federal income tax treatment of staking rewards received in respect of proof-of-stake cryptocurrency.

We appreciate your consideration of our Report. If you have any questions or comments, please feel free to contact us and we will be glad to assist in any way.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Robert Cassanos".

Robert Cassanos
Chair

Enclosure

CC:

Peter H. Blessing
Associate Chief Counsel (International)
Internal Revenue Service

Natasha Goldvug
Attorney-Advisor, Tax Legislative Counsel
Department of the Treasury

Helen Hubbard
Associate Chief Counsel (Financial Institutions & Products)
Department of the Treasury

John Moriarty
Associate Chief Counsel (Income Tax & Accounting)
Internal Revenue Service

Jose Murillo
Deputy Assistant Secretary
Department of the Treasury

Kamela Nelan
Attorney-Advisor, International Tax Counsel
Department of the Treasury

Erika Nijenhuis
Senior Counsel
Department of the Treasury (Office of Tax Policy)

Kevin Nichols
International Tax Counsel
Department of the Treasury (Office of Tax Policy)

Michael S. Novey
Associate Tax Legislative Counsel
Department of the Treasury

William M. Paul
Principal Deputy Chief Counsel and Deputy Chief Counsel (Technical)
Internal Revenue Service

Richard Reinhold
Special Counsel (International)
Internal Revenue Service

Brett York
Deputy Tax Legislative Counsel
Department of the Treasury

NEW YORK STATE BAR ASSOCIATION TAX SECTION

REPORT ON CRYPTOCURRENCY AND OTHER FUNGIBLE DIGITAL ASSETS

April 18, 2022

TABLE OF CONTENTS

	<u>Page</u>
I. Background	1
II. Summary of Proposed Recommendations and Requests for Guidance	8
III. Discussion.....	10
A. General Characterization of Cryptocurrency	10
1. Overview.....	10
2. Potential Characterization as Commodities	10
3. Recommendation	12
B. Application of the Commodities Trading Safe Harbors under Section 864(b)(2)(B) to Cryptocurrency.....	14
1. Background on Commodities Trading Safe Harbors.....	14
2. Requirements to Satisfy the Commodities Trading Safe Harbors	15
3. Recommendation	18
C. Application of the Straddle Rules of Section 1092 to Fungible Digital Assets	20
1. Current Law	20
2. Recommendation	22
D. Application of the Mark-to-Market Provisions of Sections 475(e) and 475(f) for Commodities Dealers and Traders to Cryptocurrency	22
1. Current Law	22
2. Recommendation	23
E. Gain/Loss on the Lending of Cryptocurrency	24
1. Overview of Cryptocurrency Loans.....	24
2. Background and Current Law	25
3. Recommendation	27

F.	Treatment of Stablecoins	33
1.	Overview	33
2.	Tax Characterization of Sponsored USD Stablecoin.....	35
3.	Recommendation	37
G.	Treatment of Wrapping.....	37
1.	Background	37
2.	Tax Treatment of Wrapping, Unwrapping and Exchanging Wrapped Cryptocurrency	38
3.	Recommendation	40
H.	Treatment of Staking Rewards.....	41
1.	Overview	41
2.	Treatment as Gross Income	45
3.	Sourcing	50

REPORT ON CRYPTOCURRENCY AND OTHER FUNGIBLE DIGITAL ASSETS

The New York State Bar Association Tax Section is submitting this report (the “*Report*”)¹ to request guidance with respect to a number of matters relating to the tax treatment of cryptocurrency and other fungible digital assets. This Report supplements our report (the “*Prior Report*”)² to the Internal Revenue Service (the “*Service*”) and the Department of the Treasury (“*Treasury*”) dated January 26, 2020 addressing certain tax issues relating to cryptocurrency.

I. Background

Bitcoin was first minted in 2009, ushering in a new class of purely digital, blockchain-based assets referred to as cryptocurrency.³ A core feature of cryptocurrency is that it enables a decentralized network of participants to reach a consensus on the ownership and transfer of a particular digital representation of value without the need for a financial intermediary like a bank or broker to verify transactions or secure account credentials.

Very generally, the two essential features of a blockchain that enable this decentralized consensus are the distributed ledger and the consensus mechanism. A distributed ledger can be thought of as a spreadsheet that is broadcast to network participants describing the public network address of the current owner of every digital asset on the blockchain and the history of every transaction that has occurred on the blockchain.⁴ In turn, a consensus mechanism can be thought of as a decentralized, cryptographically secured process of agreement by which a majority of network participants can assent to one “true” global dataset of ownership and transaction history — a so-called “blockchain” — to be recorded on the distributed ledger.

¹ The principal authors of this Report are Michael Shulman and Lorenz Haselberger. Helpful comments were provided by Peter Benesch, Andy Braiterman, Kim Blanchard, James Brown, Michael Buiteweg, Robert Cassanos, Peter Connors, Michael Desmond, Lucy Farr, Rachel Flaschner, Jonathan Gifford, Kevin Glenn, Kevin Jacobs, Sydney Kane, Rebecca Lee, John Lutz, David Miller, John Narducci, Vadim Novik, Richard Nugent, Seth Piken, Yaron Reich, Joshua Savey, Michael Schler, Jason Schwartz, Stephen Shay, Nathan Tasso, Shun Tosaka, Ahuva Weinreich and Libin Zhang. This Report reflects solely the views of the Tax Section of the New York State Bar Association and not those of the Executive Committee or the House of Delegates of the New York State Bar Association.

² New York State Bar Association Tax Section, *Report on the Taxation of Cryptocurrency* (Jan. 26, 2020).

³ In general, cryptocurrency protocols have a name (for example, Bitcoin) and a separate symbol for units of their cryptocurrency (for example, BTC). For simplicity, this Report generally uses the name of a protocol when referring to units of its cryptocurrency.

⁴ The public address of a beneficial owner of cryptocurrency is cryptographically secured so that it cannot be used to identify the beneficial owner unless it divulges (or is forced to divulge) its identity. The beneficial owner holds a separate “private key” that is tied to the public address through cryptography and can be used to transfer cryptocurrency to and from the public address. For a more detailed discussion, see the Prior Report.

The Service first provided guidance with respect to cryptocurrency in Notice 2014-21⁵ (the “2014 Notice”), which clarified that “convertible virtual currency” is treated as property (and not foreign currency) for federal income tax purposes and defined convertible 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” that can be “exchanged into . . . U.S. dollars, Euros, and other real currencies.”⁶ Since the 2014 Notice was published, a variety of new blockchain-based digital assets have emerged, which — although they generally meet the broad definition of convertible virtual currency in the 2014 Notice — also have additional functionality that goes beyond the mere ability to serve as a digital representation of value that is transferrable in a secure manner using a blockchain-based consensus mechanism. These digital assets include:

- *Stablecoins.* Stablecoins are blockchain-based digital assets whose value is pegged to a fiat currency⁷ or another underlying reference asset (for example, other cryptocurrency), either through off-blockchain legal arrangements (for example, a sponsor that holds itself out as willing to redeem the stablecoin for the underlying fiat currency or reference asset) or through algorithms that, among other things, may create or destroy units of the digital asset as necessary to maintain price stability.
- *Utility tokens.* Utility tokens are blockchain-based digital assets that have functionality in addition to serving as a digital representation of value, such as the ability to be redeemed for certain digital services or the ability to be deposited with an underlying software protocol in order to participate in certain activities (for example, blockchain data indexing) and receive related digital asset rewards.⁸
- *Security tokens.* Security tokens are blockchain-based digital assets that provide holders with a fractional interest in an underlying asset, such as an equity security.

⁵ 2014-16 I.R.B. 938.

⁶ The 2014 Notice also provided that “[i]n some environments, [convertible virtual currency] operates like ‘real’ currency — that is, 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.” Notably, in September 2021, El Salvador designated Bitcoin as legal tender, raising the question of whether Bitcoin will be treated as foreign currency for federal income tax purposes simply by virtue of its legal tender status in that jurisdiction. However, we believe that the better understanding of the 2014 Notice is that although legal tender status may be *necessary* for an item of property to be treated as a foreign currency, it is not sufficient. Instead, an item of property generally should not be treated as foreign currency unless it is issued by the country or countries where it is legal tender (or by a body, like the European Central Bank, organized by countries to issue the property).

⁷ As used in this Report, the term “fiat currency” means any government-issued currency that is declared by the government to be legal tender (for example, the Euro or the U.S. dollar).

⁸ The dividing line between digital assets colloquially referred to as “utility tokens” and more traditional cryptocurrencies like Ether is not entirely clear. For example, the Ethereum blockchain supports a variety of functionality that can be accessed through Ether, including the ability to enter into so-called “smart contracts” (discussed further below).

- *Non-fungible tokens.* A non-fungible token (“**NFT**”) is a blockchain-based digital asset that represents ownership of a unique item, like a piece of digital art or a video.

As yet, there is no clear consensus among industry participants regarding the terminology that is used to refer to and distinguish between this broad array of new digital assets. In particular, terms like “virtual currency,” “cryptocurrency,” “digital assets,” “tokens” and “coins” are often used interchangeably to refer to some or all of the digital assets described above, even though the legal and economic characteristics of such digital assets can vary dramatically.

From the onset of the development and use of digital assets, taxpayers and their advisors have struggled with the numerous and often novel tax issues raised by the ownership and use of such assets. These issues are far-ranging, from the appropriate characterization of a particular digital asset for federal income tax purposes, to whether the receipt of a digital asset in certain contexts is taxable, to the application of various anti-abuse regimes that did not specifically contemplate property with the characteristics of digital assets.

To date, however, the Service has provided little guidance addressing the tax treatment of digital assets. Although the 2014 Notice clarified that “convertible virtual currency” is treated for federal income tax purposes as property (and not foreign currency), it left unaddressed a number of critical questions regarding the treatment of virtual currency, including whether virtual currency generally would be considered part of an existing asset class (for example, commodities or securities) for purposes of various provisions of the Internal Revenue Code of 1986, as amended (the “**Code**”)⁹ or instead would constitute a new asset class for some or all of those purposes.

Since the publication of the 2014 Notice, the principal guidance issued by the Service relating to cryptocurrency has been Revenue Ruling 2019-24 and the updated “Frequently Asked Questions” relating to virtual currency (the “**FAQ**”), both of which were published by the Service on October 9, 2019¹⁰ and provide limited guidance in respect of hard forks and certain consequences flowing from the treatment of virtual currency as property for federal income tax purposes, including in respect of the determination of fair market value, basis and holding period.¹¹ More recently, the infrastructure bill that was signed into law by the President on November 15, 2021 (the “**Infrastructure Bill**”) clarified and expanded the information reporting requirements

⁹ All section references herein are to the Code or to the Treasury regulations promulgated thereunder, unless otherwise indicated.

¹⁰ The FAQ was further updated in March 2021 to clarify a new requirement to report cryptocurrency transactions on IRS Form 1040.

¹¹ The Service has also issued several recent advice memoranda relating to cryptocurrency, which are not directly relevant to the topics discussed in this Report. See Chief Counsel Advice 202114020 (concluding that the receipt of cryptocurrency in a hard fork is includable in gross income when the recipient has dominion and control over the new asset); Chief Counsel Advice 202124008 (concluding that exchanges of different kinds of cryptocurrency are not like-kind exchanges under section 1031); Chief Counsel Advice 202035011 (concluding that cryptocurrency received in exchange for the performance of services is includable in gross income on receipt).

applicable to digital assets.¹² For purposes of the Infrastructure Bill, “digital assets” are 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.”¹³ However, none of the foregoing authorities provide meaningful guidance with respect to the substantive tax treatment of digital assets and common transactions that taxpayers may enter into using digital assets, or with respect to the tax treatment of newer classes of digital assets like stablecoins.

The Prior Report commented on Revenue Ruling 2019-24 and the FAQ (in particular, on the treatment of hard forks and the distinction between hard forks and airdrops) and identified additional areas in which specific tax guidance would be beneficial. While only slightly more than two years has passed since the Prior Report was submitted, the market for digital assets has expanded and changed in dramatic ways:

- The number of discrete types of digital assets has increased from roughly 5,000 at the time the Prior Report was published to nearly 10,000 today.¹⁴ At the same time, the total market capitalization of all digital assets has seen tremendous growth, from approximately \$200 billion at such time to more than \$1.8 trillion currently (and as high as \$3 trillion in November 2021).¹⁵
- There has been a marked increase in the use of cryptocurrencies that utilize a “proof-of-stake” consensus mechanism (as opposed to the “proof-of-work” consensus mechanism used by Bitcoin and certain other cryptocurrencies). As described in detail in Part III.H.1 below, proof of stake is intended to solve the energy inefficiency of proof of work while offering comparable blockchain security. That is, whereas proof-of-work protocols allocate the right to validate transactions and record them on the blockchain to network participants based on the ability to solve energy-intensive, cryptographic puzzles (referred to as “mining”), proof-of-stake protocols allocate validation rights to network participants based on how many units of cryptocurrency they have deposited (“staked”) with the network. As in proof-of-work protocols, network participants that successfully validate transactions are rewarded with additional units of the relevant cryptocurrency (which are generally referred to in the proof-of-stake context as “staking rewards”). Although proof-

¹² Infrastructure Investment and Jobs Act (P.L. 117-58).

¹³ Section 6045(g)(3)(D).

¹⁴ See CoinMarketCap, <https://coinmarketcap.com/> (listing information for 9,968 cryptocurrencies) (last accessed April 18, 2022).

¹⁵ See CoinMarketCap, Total Cryptocurrency Market Cap, <https://coinmarketcap.com/charts/> (last accessed April 18, 2022); see also Joanna Ossinger, *Crypto World Hits \$3 Trillion Market Cap as Ether, Bitcoin Gain*, Bloomberg News (Nov. 8, 2021), available at <https://www.bloomberg.com/news/articles/2021-11-08/crypto-world-hits-3-trillion-market-cap-as-ether-bitcoin-gain>; Executive Order on Ensuring Responsible Development of Digital Assets, The White House (March 9, 2022), available at <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/> (observing the “dramatic growth in markets for digital assets” and calling for various executive branch measures to address the risks and harness the potential benefits of digital assets and blockchain technology).

of-work cryptocurrencies like Bitcoin currently continue to dwarf proof-of-stake currencies in terms of market capitalization and trading volume, Ethereum’s planned transition to proof of stake in 2022 is expected to result in proof-of-stake cryptocurrency constituting a sizable portion of the overall market.¹⁶

- The use of digital assets in so-called “decentralized finance” or “DeFi” has grown substantially in the past two years. Decentralized finance generally refers to the use of open-source software platforms to engage in financial transactions that are settled directly on a blockchain using digital assets, including lending or borrowing digital assets, entering into derivative contracts and insuring risk. Rather than being effected through traditional financial intermediaries (often referred to as “centralized finance”), these transactions are governed by so-called “smart contracts,” which are self-executing software programs that automatically and irreversibly settle using digital assets once the conditions agreed to by the parties are met.¹⁷
- As noted above, the recent Infrastructure Bill increased the information reporting requirements for digital assets, making determinations of the taxability of transactions in digital assets more critical for brokers and others subject to those requirements.

The aforementioned developments make the need for tax guidance even more acute than when the Prior Report was submitted.

The desire for guidance on the tax treatment of digital assets is significant and extends to a multitude of tax provisions. However, the diversity of digital assets, and the rapid pace at which new digital assets are being developed, makes providing a comprehensive set of recommendations to address all or even most of the significant issues affecting digital assets unrealistic. Consequently, this Report focuses on areas we believe are most in need of guidance, and where the path to issuing such guidance is reasonably straightforward.

In view of the wide range of digital assets currently in circulation and the variety of often inconsistent and overlapping terminology that is used by market participants and tax practitioners to refer to those digital assets, this Report will use the following nomenclature to refer to and distinguish between different kinds of digital assets:

- *Cryptocurrency*: As used in this Report, the term “**cryptocurrency**” means any fungible asset that (i) meets the definition of “digital asset” in section 6045(g)(3)(D) and (ii) is not treated for federal income tax purposes as (A) an equity, debt or other interest in a legal

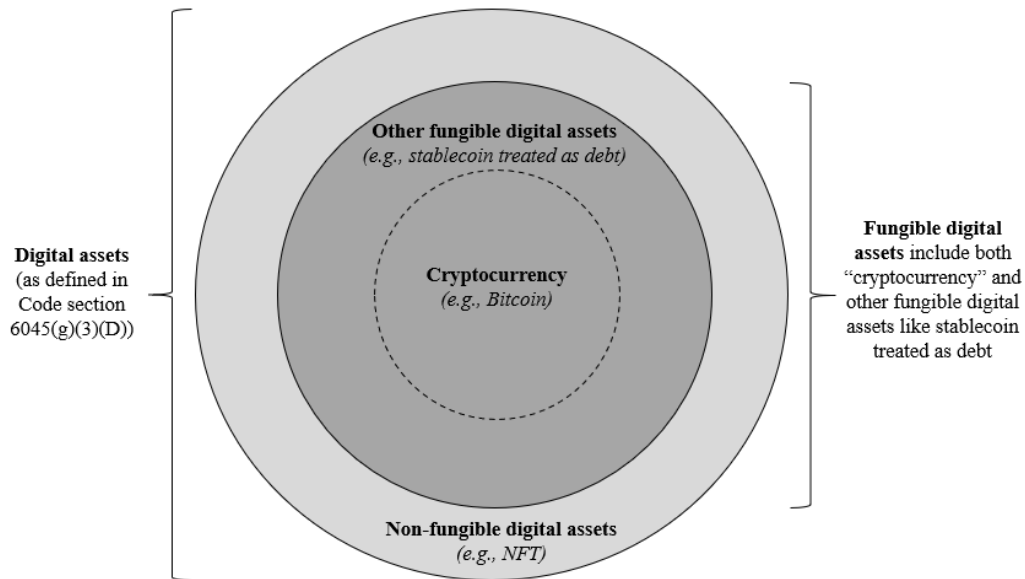
¹⁶ See, e.g., Adam McCarthy, *FTX.US Boss Predicts Ethereum and Altcoins Will Eat Away at Bitcoin’s Market Dominance, Thanks to their Proof-of-Stake System*, Market Insider (Feb. 15, 2022), available at <https://markets.businessinsider.com/news/currencies/bitcoin-crypto-ether-solana-ftx-brett-harrison-market-share-drop-2022-2>.

¹⁷ For the avoidance of doubt, we observe that it is not necessarily clear that “smart contracts” are contracts in the legal sense.

entity or other tax “person” or (B) ownership of an underlying stock, security, fiat currency or other asset (other than an asset that is itself cryptocurrency).

- **Fungible digital asset:** As used in this Report, the term “*fungible digital asset*” means:
 - Any cryptocurrency, and
 - Any other fungible asset that meets the definition of “digital asset” in section 6045(g)(3)(D). Examples of digital assets that fall into this latter category include stablecoins treated as indebtedness for federal income tax purposes (see the discussion in Part III.F of the Report), utility tokens treated as equity in a partnership for federal income tax purposes,¹⁸ and security tokens treated as ownership of an underlying stock or security for federal income tax purposes.¹⁹
- **Non-fungible digital asset:** As used in this Report, the term “*non-fungible digital asset*” means any “digital asset” as defined in section 6045(g)(3)(D) that is not fungible (for example, an NFT).

Depicted visually, these three categories can be thought of as a series of concentric circles comprising the universe of digital assets:



¹⁸ This Report takes no view on whether any particular digital asset should be treated as equity in a partnership or deemed partnership, or as falling in any other category that is excluded from the term “cryptocurrency” as defined in this Report (other than in the discussion of certain stablecoins in Part III.F).

¹⁹ In this regard, we note that nearly any asset can be “tokenized,” with each token representing beneficial ownership of a pro rata share of the referenced asset. In our view, where a token is properly treated for federal income tax purposes as ownership of an underlying asset, its tax characterization and tax treatment should be based on the character of the underlying asset.

The scope of this Report is generally limited to discussing aspects of the federal income tax treatment of cryptocurrency and, in certain circumstances, other fungible digital assets like stablecoins. The Report does not address the federal income tax characterization or treatment of non-fungible digital assets like NFTs, which raise issues not generally applicable to fungible digital assets and should be addressed separately.

In addition, other than in the discussion of certain U.S.-dollar pegged stablecoins in Part III.F, the Report does not address (x) the circumstances under which fungible digital assets may be treated for federal income tax purposes as equity, indebtedness or ownership of an underlying stock, security, fiat currency or other asset that is not a cryptocurrency or (y) the federal income tax considerations for any fungible digital assets that are treated as such (which should be governed by existing tax principles). We observe that the enormous degree of factual variation between different types of fungible digital assets would make it difficult to provide comprehensive guidance in this area.

Although a number of the Report's recommendations apply at least in part with respect to decentralized financial transactions involving digital assets (for example, the Report's recommendations in Part III.E with respect to the treatment of cryptocurrency loans), the Report will not address any issues specifically related to decentralized finance or the use of cryptocurrency or other digital assets in decentralized financial transactions (including, for example, the possibility that a particular digital asset, such as a token issued by a "decentralized autonomous organization" or "DAO," could be treated for federal income tax purposes as an interest in a deemed partnership or the application of federal income tax withholding or information reporting rules to decentralized finance transactions). Although we recognize that decentralized finance is emerging as an important feature of the digital asset marketplace, it currently represents a relatively small fraction of the digital assets in circulation as measured by market capitalization and transaction volume. In view of the enormous factual variation between decentralized finance protocols and the rapid pace of innovation in the field, we believe it would be difficult to provide actionable recommendations in this arena at the present time, although we recognize that there may be a pressing need for tax and non-tax regulatory guidance with respect to decentralized finance in the coming years.

For a number of the recommendations made in this Report, a strong case can be made that the change we recommend should extend to certain non-digital assets or to certain transactions not involving digital assets. For example, our recommendation that the government issue regulations under section 1001 to permit non-realization treatment for cryptocurrency loans meeting certain requirements could apply equally to similarly structured loans of commodities that are not cryptocurrencies. While we recognize that, from a tax policy perspective, some of our recommendations should not be limited to digital assets, we have limited our recommendations to digital assets for purposes of simplicity. However, we encourage the government to consider whether any guidance issued in response to the recommendations made in this Report should apply to other types of assets or transactions in appropriate cases.

Lastly, we note that in March 2022, the Biden Administration published its General Explanation of the Administration's Fiscal Year 2023 Revenue Proposals (the "**Green Book**"), which includes several legislative proposals to address the tax treatment of certain transactions involving digital assets. Among other things, the Green Book would "amend the securities loan nonrecognition rules to provide that they apply to loans of actively traded digital assets . . .

provided that the loan has terms similar to those currently required for loans of securities” and “add [actively traded digital assets as] a third category of assets that may be marked-to-market at the election of a dealer or trader of those assets.” These legislative proposals are generally consistent with two of the Report’s recommendations, and we commend the Administration for recognizing the need for additional guidance on the tax treatment of digital assets. Although it would be preferable to enact these changes through new legislation, we believe that Treasury and the Service could reasonably provide rules through the promulgation of Treasury regulations or other forms of guidance in a manner that reaches a similar result in the absence of new legislation, as discussed in further detail below.

II. Summary of Proposed Recommendations and Requests for Guidance

This Report’s recommendations are summarized as follows:

- A. The government should consider providing a general rule treating cryptocurrencies as commodities for federal income tax purposes if they are subject to the asserted jurisdiction of the Commodity Futures Trading Commission (“*CFTC*”) except where (i) a Code provision specifically contemplates the treatment of cryptocurrencies as a separate asset class or (ii) the government otherwise provides that cryptocurrencies are not treated as commodities for purposes of a specific Code provision.
- B. The commodities trading safe harbors in section 864(b)(2)(B) should be extended to the trading of cryptocurrencies.
- C. Fungible digital assets traded on Centralized Cryptocurrency Exchanges (as defined below) should be considered actively traded property for purposes of the straddle rules of section 1092 on the basis that the exchanges constitute “established financial markets” within the meaning of applicable Treasury regulations.
- D. Cryptocurrencies should be treated as commodities for purposes of the mark-to-market elections available under section 475(e) and section 475(f) to dealers and traders in commodities as long as the cryptocurrencies qualify as actively traded property within the meaning of section 1092(d)(1).
- E. Cryptocurrency loans that meet certain requirements (as discussed in Part III.E below) should not be treated as an exchange of property for other property materially differing in kind or in extent for purposes of section 1001, and thus should not result in the realization of gain or loss by the lender.
- F. U.S.-dollar pegged stablecoins having certain features (including legal enforceability and collateralization with high-quality debt instruments) should be characterized as indebtedness for federal income tax purposes.
- G. The holder of “wrapped” cryptocurrency should be treated as the owner of the underlying cryptocurrency for federal income tax purposes so long as (i) the custodian or other holder of the underlying cryptocurrency has no ability to transfer

the cryptocurrency to any other party and (ii) the holder has the ability to exchange the wrapped cryptocurrency for the underlying cryptocurrency at any time.

- H. With respect to “staking rewards” received in respect of cryptocurrencies that use a proof-of-stake consensus mechanism:
1. The government should provide specific guidance clarifying that staking rewards should be includable as gross income when received at their fair market value at such time.
 2. The government should provide clear guidance regarding the source of any staking rewards includable in gross income (and other amounts received by a cryptocurrency owner relating to such rewards). One approach worth considering would be to determine the source of such amounts by reference to the tax residence of the recipient.

We appreciate that the government has limited resources and that it may prove challenging to provide guidance on all of the issues covered in the Report in the near term. Accordingly, we have ranked our recommendations in rough order of their importance, cross referencing each recommendation to the appropriate section of the Report:

Higher Importance:

- Gain/Loss on the Lending of Cryptocurrency (Part III.E)
- Treatment of Staking Rewards (Part III.H)
- Application of the Commodities Trading Safe Harbors (Part III.B)

Medium Importance:

- General Characterization of Cryptocurrency (Part III.A)
- Application of the Straddle Rules (Part III.C)
- Application of the Mark-to-Market Provisions of Section 475(e) and (f) (Part III.D)
- Treatment of Stablecoins (Part III.F)

Lower Importance:

- Treatment of Wrapping (Part III.G)

In general, we believe that each of our recommendations could be implemented with moderate difficulty (in some cases, possibly less), other than the recommendations in Part III.H relating to the source of staking rewards, which present significant conceptual complexities. However, the

exact degree of difficulty would likely depend on a number of variables, including the breadth of the version of the recommendation being implemented.

III. Discussion

A. General Characterization of Cryptocurrency

1. Overview

As noted above, the 2014 Notice provides that “convertible virtual currency” (a category that includes any cryptocurrency as that term is defined for purposes of this Report) is treated as property that is not foreign currency for federal income tax purposes. Neither the 2014 Notice nor any subsequent guidance, however, has clarified what type of property cryptocurrency constitutes. Specifically, it is unclear under existing law whether particular cryptocurrencies constitute, for some or all federal income tax purposes, (i) commodities, (ii) securities or (iii) a type of asset class that is neither commodities nor securities. This lack of clarity makes it challenging for practitioners and taxpayers to determine whether and how to apply particular Code provisions to cryptocurrency.

As an initial matter, we note that as discussed above, the Infrastructure Bill created new information reporting rules for “digital assets,” defined for these purposes as a new asset category that is distinct from securities and commodities, both of which are already subject to existing information reporting rules.²⁰ However, nothing in the Infrastructure Bill’s statutory language or legislative history indicates that the creation of a special category for digital assets in the information-reporting context means that digital assets cannot fall within an existing asset category (for example, commodities) for purposes of other Code provisions.

2. Potential Characterization as Commodities

Although dozens of Code provisions use the term “commodities,” there is no uniform definition of this term for tax purposes. A substantial portion of the Code provisions that use the term commodities provide no definition of this term, either directly or by cross-reference.²¹ Of the Code provisions that define the term commodities, some provide (directly or by cross reference) a circular definition that uses the term “commodities” in the definition, providing no help in determining the meaning of the term.²² In other cases, the term commodity is defined to

²⁰ Similarly, the Green Book proposal extending the mark-to-market rules of section 475 to digital assets would treat digital assets as a third category of assets separate from securities or commodities.

²¹ *See, e.g.*, sections 351(g)(2)(A)(iv); 731(c)(3)(C)(VI); 1221(b)(1)(B)(i); 1234(b)(2)(B); 7704(c)(3) and (d)(1)(G).

²² *See, e.g.*, section 475(e)(2) (defining the term commodity to mean, among other things, “any commodity which is actively traded”).

mean personal property in respect of which the CFTC has approved the trading of futures contracts.²³

In certain contexts (for example, the commodities trading safe harbors in section 864(b)(2)(B)), the Service has indicated that “the word ‘commodities’ is used . . . [in] the Code in its ordinary financial sense” and has suggested that regulation by the CFTC is relevant to the determination of whether an asset is considered a commodity for federal income tax purposes.²⁴ In June 2020, the CFTC published final interpretive guidance providing that it views all “virtual currency” as a commodity for purposes of the Commodity Exchange Act (“*CEA*”), under a broad definition of virtual currency that would appear to cover all cryptocurrency and virtually all other fungible digital assets:

The [CFTC] considers virtual currency to be a commodity as defined under section 1a(9) of the [CEA], like many other intangible commodities that the [CFTC] has previously recognized (e.g., renewable energy credits and emission allowances, certain indices, and certain debt instruments, among others). . . . The [CFTC] continues to interpret the term “virtual currency” broadly. In the context of this interpretation, virtual currency: Is a digital asset that encompasses any digital representation of value or unit of account that is or can be used as a form of currency (i.e., transferred from one party to another as a medium of exchange); may be manifested through units, tokens, or coins, among other things; and may be distributed by way of digital “smart contracts,” among other structures.²⁵

Notably, courts have upheld the CFTC’s broad jurisdiction over fungible digital assets. For example, in upholding the CFTC’s jurisdiction over the regulation of Bitcoin, the Eastern District of New York stated: “Virtual currencies are ‘goods’ exchanged in a market for a uniform quality and value They fall well within the common definition of ‘commodity.’”²⁶ Another District Court held, in responding to a motion to dismiss, that a different digital asset (named “My Big

²³ See, e.g., Treasury regulation section 1.6045-1(a)(5). While Treasury regulation section 1.954-2(f) defines the term commodities to include only tangible commodities (or derivatives on tangible commodities), we believe that this narrow definition is a function of the history of subpart F and its treatment of commodities transactions and should not have broader application.

²⁴ See Revenue Ruling 73-158, 1973-1 C.B. 337.

²⁵ Retail Commodity Transactions Involving Certain Digital Assets, Commodity Futures Trading Commission, 85 F.R. 37734 (June 24, 2020); see also *In the Matter of Coinflip Inc.*, CFTC No. 15-29 (Sept. 17, 2015) (determining that “[t]he definition of a ‘commodity’ [for purposes of the CEA] is broad” and that “Bitcoin and other virtual currencies are encompassed in the definition and properly defined as commodities.”).

²⁶ *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018) (“Virtual currencies can be regulated by CFTC as a commodity They fall well-within the common definition of ‘commodity’ as well as the [Act’s] definition of ‘commodities’ as ‘all other goods and articles . . . in which contracts for future delivery are presently or in the future dealt in.’”) (citations omitted).

Coin”) was a commodity for purposes of the CEA, notwithstanding that no futures were traded on My Big Coin, by virtue of the fact that futures are traded on Bitcoin (a different digital asset).²⁷

3. Recommendation

We recommend that the government consider issuing guidance providing that cryptocurrencies are treated as commodities for federal income tax purposes if they are subject to the asserted jurisdiction of the CFTC, except to the extent that the Service specifically determines they should be excluded from such treatment for purposes of a particular Code provision.²⁸ Alternatively, guidance might provide that cryptocurrencies having certain characteristics (for example, active trading) are treated as commodities for federal income tax purposes. In either case, if guidance is issued along these lines, we suggest that exceptions from commodity treatment be provided in the following cases:

- a cryptocurrency would not be treated as a commodity in the context of any provision that has rules designed specifically to address digital assets (or particular types of digital assets) as a distinct asset class (such as the digital asset information reporting rules under the Infrastructure Bill); and
- a cryptocurrency would not be treated as a commodity in the context of any provision that defines the term commodity by reference to additional requirements separate from the definition of “commodity” (such as section 475(e)(2), which defines the term “commodity” to include “any commodity which is actively traded (within the meaning of section 1092(d)(1))”) unless the cryptocurrency meets those additional requirements.

We believe that a comprehensive approach that generally treats all cryptocurrencies as commodities is preferable to an approach that determines their treatment on a case-by-case basis, for the following reasons:

- First, we are not aware of any Code provision where treatment of cryptocurrencies as commodities would be inconsistent with the tax policy behind the provision.
- Second, a comprehensive approach avoids the need for piecemeal guidance separately addressing each relevant use of the term commodities and the delay that such an individualized approach would necessarily entail for most Code provisions.
- Third, in the absence of government guidance, sufficient support may exist for treating a cryptocurrency as a commodity or not as a commodity depending on which result would

²⁷ *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492, 495-98 (D. Mass. 2018).

²⁸ More specifically, we believe that given that the CFTC has asserted in published guidance that it views cryptocurrency as commodities for purposes of the CEA, taxpayers should be able to rely on that guidance to treat cryptocurrency as a commodity for federal income tax purposes unless and until that guidance is withdrawn or successfully challenged.

yield a more favorable tax outcome, potentially allowing taxpayers to whipsaw the government.

- Finally, without such guidance, some taxpayers may conclude that only Bitcoin and Ether (and no other cryptocurrencies) are currently treated as commodities for purposes of many Code provisions on the basis that futures on Bitcoin and Ether (but no other cryptocurrencies) are traded on CFTC-regulated exchanges. It is difficult to see how treating Bitcoin and Ether as commodities, but treating all other cryptocurrencies as not being commodities, advances the policy behind the various Code provisions that use the term commodities.

One consideration in providing guidance in this area is whether the treatment of a cryptocurrency as a commodity for federal income tax purposes should depend on whether the cryptocurrency is otherwise treated as a security for some or all of those purposes. In this regard, it is worth highlighting that the definition of the term “security” for tax purposes varies significantly depending on the particular Code provision at issue. For example, the definition of security in section 1236(c) (which covers only debt instruments and corporate stock) is far more limited than that used for other Code provisions, under which the Service generally defers to the securities law interpretation of the term securities.²⁹ Thus, it is possible that a particular cryptocurrency might be treated as a security for some tax purposes, but not for other tax purposes.

The fact that a cryptocurrency might be treated as a security for at least some tax purposes does not necessarily preclude its treatment as a commodity in other contexts. For example, for purposes of the trading safe harbors in section 864(b)(2), the Service has made clear that a single asset may be treated as both a security and a commodity.³⁰ Thus, one approach to potential overlap situations would be to treat cryptocurrencies as commodities regardless of whether they may also be treated as securities for some or all tax purposes. Another approach to address such overlap situations would be for cryptocurrencies that otherwise would qualify as both securities and commodities for purposes of a particular Code provision to be treated solely as securities for purposes of that Code provision.

Although we believe that a uniform approach to the classification of cryptocurrency is preferable to a case-by-case approach, we recognize that the government may have concerns about providing guidance universally treating cryptocurrencies as commodities, particularly given the large number of Code provisions that use this term. In such a case, we recommend that the government interpret the term commodities to include cryptocurrencies at least for purposes of those provisions specifically addressed in this Report, as discussed in more detail below.

²⁹ See, e.g., sections 368(a)(2)(F)(vii); 851(b); and 856(c)(5)(F).

³⁰ Private Letter Ruling 8807004 (holding that 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 are both securities and commodities for purposes of section 864(b)(2)).

B. Application of the Commodities Trading Safe Harbors under Section 864(b)(2)(B) to Cryptocurrency

1. Background on Commodities Trading Safe Harbors

Many offshore investors invest (directly or indirectly) in cryptocurrency and other fungible digital assets through U.S.-based employees, investment managers or agents. In some cases, this activity rises to the level of trading, such that the offshore investor (or, where the investor is classified as a partnership for federal income tax purposes, its foreign owners) may be treated as engaged in a U.S. trade or business unless one of the trading safe harbors in section 864(b)(2) applies.

Under the commodities trading safe harbors in section 864(b)(2)(B), an offshore investor will not be treated as engaged in a U.S. trade or business by virtue of:

- trading in commodities through a U.S.-based broker, commission agent, custodian or other independent agent, but only if the offshore investor does not have a U.S. office or fixed place of business through which the commodities transactions are effected at any time during the taxable year;³¹ or
- trading for its own account in commodities, but only if the offshore investor is not a dealer in commodities for federal income tax purposes.³² Dealers in commodities are excluded from this safe harbor regardless of whether their dealer activities are connected to the United States.

Parallel safe harbors exist under section 864(b)(2)(A) for trading in securities.

Notably, the commodities trading safe harbors apply only in respect of transactions in commodities that meet the following two requirements:

- the commodities must be of a kind customarily dealt in on an organized commodity exchange (the “organized commodity exchange requirement”); and
- the transactions must be of a kind customarily consummated at such a place (the “customarily consummated requirement”).³³

³¹ Section 864(b)(2)(B)(i) and (C).

³² Section 864(b)(2)(B)(ii).

³³ Section 864(b)(2)(B)(ii) and (iii). Failure to meet the requirements of the commodities trading safe harbors does not mean that activities automatically will be treated as the conduct of a “trade or business within the United States.” *See* Treasury regulation section 1.864-2(e). We note that the Service will not ordinarily issue an advance ruling or a determination letter as to whether a commodity is of a kind customarily dealt in on an organized commodity exchange, and whether a transaction is of a kind customarily consummated at such a place. *See* Revenue Procedure 2022-7, 2022-1 I.R.B. 297, Section 4.01(3).

As discussed in further detail below, it is unclear under existing law whether the commodities trading safe harbors are available in respect of some or all cryptocurrencies that may be traded by offshore investors.

2. Requirements to Satisfy the Commodities Trading Safe Harbors

a. *Commodities for Purposes of the Safe Harbors*

Neither section 864 nor the regulations promulgated thereunder provide guidance on the meaning of the term “commodities” for purposes of the commodities trading safe harbors, except by clarifying that commodities do not include “goods or merchandise in the ordinary channels of commerce.”³⁴ The most useful guidance in interpreting the term commodities for this purpose is Revenue Ruling 73-158,³⁵ which held that the sale of raw sugar through an independent broker in the United States did not constitute a trade or business in the United States under the commodities trading safe harbors. That ruling stated:

The 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.

Thus, while providing that the term “commodities” includes products listed on U.S. commodity exchanges, the ruling indicates that other products treated as commodities in the “ordinary financial sense” should also be treated as commodities for purposes of the safe harbors.³⁶

A subsequent private letter ruling noted that “[t]he fact that trading in cash settlement futures contracts is regulated by the CFTC rather than the Securities and Exchange Commission is evidence that a cash settlement contract should be considered a commodity in the ordinary financial sense.”³⁷ This language suggests that regulation of an item by the CFTC likely causes

³⁴ Treasury regulation section 1.864-2(d)(3). While it is not entirely clear what this limitation is intended to encompass, it is difficult to see how cryptocurrency could be treated as “goods or merchandise in the ordinary channels of commerce,” because they are intangible financial assets and not consumable goods or merchandise.

³⁵ 1973-1 C.B. 337.

³⁶ Prior to its adoption of a no-rule policy regarding the application of the commodities trading safe harbors, the Service issued private letter rulings holding that numerous financial products constituted commodities for this purpose where the products themselves or the assets referenced by the products were traded on a U.S. commodity exchange. *See, e.g.*, Private Letter Ruling 7743083 (foreign currency futures contracts); Private Letter Ruling 8326013 (foreign currency forward contracts); Private Letter Ruling 8527041 (spot and forward contracts for precious metals and foreign currencies); Private Letter Ruling 8540033 (futures contracts on financial indices and Eurodollar time deposits, and options on commodity futures contracts); Private Letter Ruling 8807004 (Treasury bond futures, Treasury note futures, Treasury bill futures and GNMA futures); Private Letter Ruling 8813012 (futures and forward contracts for crude oil).

³⁷ Private Letter Ruling 8540033.

the item to be a commodity in the ordinary financial sense, which in turn causes the item to be treated as a commodity for purposes of the commodities trading safe harbors.

More generally, both Revenue Ruling 73-158 and subsequent private letter rulings suggest that the Service generally will defer to the CFTC in determining what qualifies as a commodity for purposes of section 864(b)(2)(B). In this regard, as described in Part III.A above, the CFTC has asserted sweeping authority over “virtual currencies” and determined that virtual currencies are commodities for purposes of the CEA, under a broad definition of virtual currencies that would appear to cover all cryptocurrency and virtually all other fungible digital assets.

Under the limited guidance that exists regarding the meaning of the term commodities for purposes of the safe harbors, we believe there are strong arguments that cryptocurrencies constitute commodities for this purpose. The arguments are strongest for Bitcoin and Ether (as well as derivatives that reference these cryptocurrencies), because futures on these cryptocurrencies are traded on U.S. commodity exchanges (as contemplated by Revenue Ruling 73-158). However, given that the CFTC has asserted broad regulatory jurisdiction over cryptocurrencies and other fungible digital assets more generally, taxpayers may argue that other cryptocurrencies and fungible digital assets also constitute commodities.

b. *Requirement that the Commodities Are of a Kind Customarily Dealt in on an “Organized Commodity Exchange”*

The commodities trading safe harbors apply only where the relevant commodities are “of a kind customarily dealt in on an organized commodity exchange.”³⁸ Like the term commodities, neither the Code nor the regulations thereunder provides any guidance regarding what constitutes an organized commodity exchange (other than language in the regulations indicating that a grain futures market and a cotton futures market qualify as such an exchange).³⁹ Further, the legislative history to the enactment of the commodities trading safe harbors provides no insight into the rationale for the organized commodity exchange requirement.

Revenue Ruling 73-158, as well as most of the private letter rulings confirming the availability of the commodities trading safe harbors, addressed only commodities traded on a U.S. commodity exchange subject to the regulation of the CFTC. Private Letter Ruling 8850041, however, found the commodities trading safe harbors to apply in the case of foreign currencies (and derivatives on foreign currencies) even where some of those currencies and derivatives were traded only on non-U.S. exchanges. One might interpret the ruling’s conclusion to mean that commodity exchanges not regulated by the CFTC may qualify as organized commodity exchanges within the meaning of section 864(b)(2)(B)(iii). Alternatively, the conclusion could be interpreted more broadly as blessing the treatment of a commodity as being “of a kind” traded on an organized

³⁸ Section 864(b)(2)(B)(iii).

³⁹ Treasury regulation section 1.864-2(d)(1).

commodity exchange when a different commodity of the same generic type (in the case of the ruling, foreign currency) is traded on an organized commodity exchange.⁴⁰

A separate but related question is whether centralized exchanges for the trading of cryptocurrency and other fungible digital assets (“*Centralized Cryptocurrency Exchanges*”), such as Coinbase, Binance, Kraken and Gemini, are excluded from treatment as organized commodity exchanges because they only facilitate spot transactions rather than transactions in futures or other derivatives. Historically, spot transactions are not transactions “of a kind customarily dealt in on an organized commodity exchange,” because CFTC-regulated commodity exchanges definitionally facilitate trading in futures contracts and other derivatives that reference commodities, rather than spot transactions in the underlying commodities themselves. In this regard, we believe it is instructive that — as discussed above — the Treasury regulations under section 864 clarify that “the term ‘commodities’ does not include goods or merchandise in the ordinary channels of commerce.”⁴¹ While technically this language limits the meaning of the term commodity, it can be argued that this exclusion is closely related to the organized commodity exchange requirement in that it ensures that taxpayers cannot avail themselves of the commodities trading safe harbors for spot trading in ordinary physical goods or merchandise. Under this interpretation of the statute and related Treasury regulations, the fact that Centralized Cryptocurrency Exchanges only facilitate spot transaction in cryptocurrency should not prevent them from being treated as organized commodities exchanges so long as cryptocurrencies are not considered “goods or merchandise in the ordinary channels of commerce.”

If the term “organized commodity exchange” is limited to CFTC-regulated exchanges, it is likely that only Bitcoin and Ether would be eligible for the commodities trading safe harbors. It is possible, however, for taxpayers to assert that fungible digital assets traded on exchanges not regulated by the CFTC are nevertheless of a kind traded on organized commodity exchanges either because the exchanges constitute organized commodity exchanges or because the digital assets are “of a kind” with Bitcoin and Ether because they are part of a generic class of digital assets.

c. *Requirement that Transactions in Commodities Are of a Kind Customarily Consummated at an Organized Commodity Exchange*

Finally, even where the organized commodity exchange requirement is satisfied, the commodities trading safe harbors apply only to “transactions of a kind customarily consummated” at an organized commodity exchange.⁴² The legislative history to the original enactment of the commodities trading safe harbors provides no clarity regarding the purpose of the requirement,⁴³

⁴⁰ As far as we are aware, the only type of trading arrangement that the Service has ruled does not constitute an organized commodity exchange is “an informal self-regulating club of crude oil traders and brokers that engage in certain spot and forward transactions in [a particular type] of crude oil.” See Private Letter Ruling 8813012.

⁴¹ Treasury regulation section 1.864-2(d)(3).

⁴² Section 864(b)(2)(B)(iii).

⁴³ The current formulation of the commodities trading safe harbors was enacted as part of the Foreign Investors Tax Act of 1966, which implemented a comprehensive revision of the U.S. taxation of foreign investment in the United States. The legislative history to the enactment of the 1966 legislation provides no insight into

and there is no direct authority addressing when a commodities transaction would fail this requirement.

One issue that arises in understanding the contours of the customarily consummated requirement is whether physically settled transactions can satisfy this requirement. In this regard, Revenue Ruling 73-158 concluded that sales of raw sugar qualified for the commodities trading safe harbor in section 864(b)(2)(B)(i), noting that the raw sugar sold by the taxpayer was the same type of raw sugar as that sold on an organized commodity exchange. Further, the Service has held that spot contracts, forward contracts and options can satisfy the customarily consummated requirement, even though those contracts were not traded on an organized commodity exchange.⁴⁴ In any event, if the term organized commodity exchange is interpreted to include Centralized Cryptocurrency Exchanges not regulated by the CFTC, then spot transactions in cryptocurrencies would presumably satisfy the customarily consummated requirement because spot transactions in cryptocurrencies are customarily consummated at such exchanges.

3. Recommendation

We recommend that the Service issue guidance extending the commodities trading safe harbors in section 864(b)(2)(B) to trading in cryptocurrencies, for the following reasons:

First, without further guidance, and as noted in Part III.A above, it may be the case that Bitcoin and Ether (as well as derivatives that reference them), but no other cryptocurrencies, would be eligible for the commodities trading safe harbors. Although Congress's policy reasons for creating the commodities trading safe harbors are not entirely clear,⁴⁵ it is difficult to see what tax policy would be advanced by allowing the commodities trading safe harbors to apply to Bitcoin and Ether but not to other similar cryptocurrencies.

Second, as discussed above, interpreting the commodities trading safe harbors as applying to cryptocurrencies is consistent with the CFTC's exercise of its regulatory authority and interpretation of the term "commodities."

Third, extending the commodities trading safe harbors to cryptocurrency trading has a precedent in the issuance of proposed regulations in 1998 extending the trading safe harbors to trading in derivatives (including derivatives that would not ordinarily be considered commodities or securities) by eligible non-dealers.⁴⁶ Interestingly, the preamble to the proposed regulations

what purpose the organized commodity exchange requirement and the customarily consummated requirement are intended to serve. A Treasury explanation of the companion securities trading safe harbors in section 864(b)(2)(A) stated that it was intended "to remove the tax deterrents to foreign investment in U.S. corporate securities so as to improve our balance of payments by encouraging an increase in such investment." Treasury, Explanation of H.R. 5916, an Act to Remove Tax Barriers to Foreign Investment in the United States (Mar. 8, 1965).

⁴⁴ Private Letter Ruling 8850041.

⁴⁵ *See supra* note 43.

⁴⁶ Proposed Treasury regulation section 1.864(b)-1.

specifies that the proposed regulations “do not specify into which statutory safe harbor any particular derivative transaction falls.” Instead, the proposed regulations appear to reflect an understanding that the trading safe harbors should evolve to reflect the development of new investment assets that might not fall within a strict interpretation of the statutory safe harbors. In this regard, the preamble states:

Regulations regarding certain aspects of the trading safe harbors were promulgated in 1968. Since the promulgation of these regulations, the use of derivative financial instruments has increased significantly. This is due in large measure to the overall expansion and growing sophistication of global capital markets. Although guidance concerning the tax treatment of derivatives and notional principal contracts has been issued under other provisions of the Code (see, e.g., §§1.446-3, 1.863-7(b)), the section 864(b) regulations have not been modernized to take into account the manner in which taxpayers customarily use derivative transactions.⁴⁷

We believe that it would be reasonable to treat cryptocurrencies as another class of investment assets (similar to derivatives) that had not been anticipated when the trading safe harbors were enacted, but whose use and trading is consistent with the trading of securities and commodities covered by the safe harbors.⁴⁸

Fourth, we observe that if some or all cryptocurrencies are not eligible for the commodities trading safe harbors, it is reasonable to expect that offshore traders would either (i) refrain from trading in those cryptocurrencies or (ii) move their trading of those cryptocurrencies to a non-U.S. office in order to avoid subjecting themselves to U.S. taxation with respect to income from such trading activity. In other words, we would expect that excluding trading of cryptocurrency from the commodities trading safe harbors would not significantly increase revenue, and instead would have the potential for movement of economic activity to foreign jurisdictions. In this regard, it is noteworthy that Congress removed the foreign “principal office” requirement for the securities trading safe harbor in 1997 on the basis that the requirement did not promote any important tax policy objective and tended to result in jobs that otherwise could have been done in the United States being done offshore.⁴⁹

In terms of specific guidance that could be issued to extend the commodities trading safe harbors to cryptocurrency, we recommend that, to the extent that a rule generally treating cryptocurrencies as commodities for all purposes (as described in Section III.A above) is not provided, the Service clarify that cryptocurrencies qualify as commodities for purposes of the commodities trading safe harbors. In addition, we recommend that the Service provide that the

⁴⁷ REG-106031098, 63 F.R. 32164 (June 12, 1998).

⁴⁸ However, in contrast to the agnostic approach of the 1998 proposed regulations, we recommend that the Service specifically provide that the trading safe harbors are available in respect of cryptocurrencies because cryptocurrencies qualify as commodities for purposes of section 864.

⁴⁹ See Taxpayer Relief Act of 1997, Pub. L. No. 105-34, § 1162(a), 111 Stat. 788 (1997); see also H.R. Rep. No. 220, 105th Cong., 1st Sess. (1997). We acknowledge that it may be more challenging for offshore funds to move cryptocurrency traders to a non-U.S. office than it would be for them to locate back-office positions in such offices in order to satisfy the principal office test before the 1997 amendment.

term “organized commodity exchange” in section 864(b)(2)(B)(iii) includes Centralized Cryptocurrency Exchanges, regardless of whether the exchanges are regulated by the CFTC. Even though the CFTC asserts broad regulatory jurisdiction over cryptocurrency and other fungible digital assets, Centralized Cryptocurrency Exchanges generally are not currently subject to CFTC regulation because the CFTC’s regulatory jurisdiction extends only to markets for the trading of futures and other derivatives in commodities, and not to trading in the commodities themselves. Nevertheless, there does not appear to be a policy-based rationale for limiting the safe harbors to commodities traded on CFTC-regulated exchanges, as opposed to Centralized Cryptocurrency Exchanges that are not subject to CFTC regulation simply because they do not offer derivative products. Lastly, the trading of cryptocurrencies should satisfy the customarily consummated requirement because the trading of cryptocurrencies is customarily consummated at organized commodity exchanges (as clarified in the immediately prior recommendation).⁵⁰

Finally, we recognize that the government may be concerned about an extension of the commodities trading safe harbors to cryptocurrency in light of legitimate concerns regarding transparency and tax compliance in connection with the use of such assets. As a result, the government may wish to consider limiting an extension of the safe harbors to cryptocurrency to transactions executed in such a manner that appropriate information reporting and withholding would be expected to occur (for example, to transactions occurring through centralized exchanges that comply with U.S. tax information reporting and anti-money laundering / know-your-customer obligations).

C. Application of the Straddle Rules of Section 1092 to Fungible Digital Assets

1. Current Law

Section 1092(a)(1)(A) generally provides that a taxpayer that incurs a loss with respect to a position in a straddle may take the loss into account in any taxable year only to the extent the loss exceeds the unrecognized gain with respect to one or more offsetting positions in such personal property.⁵¹ The term straddle is defined as offsetting positions with respect to “personal property of a type which is actively traded.”⁵² Although fungible digital assets should qualify as personal property for these purposes, it is less clear whether and in what circumstances fungible digital assets are “actively traded.”

Section 1092 does not define the phrase “actively traded.” However, the Joint Committee on Taxation report accompanying its enactment suggests that Congress intended an expansive

⁵⁰ As with any other commodities, the qualification of trading in cryptocurrency for the commodities trading safe harbors should not apply (i) in the case of the safe harbor in section 864(b)(2)(B)(i), to an offshore person that has a U.S. office or fixed place of business through which the cryptocurrency transactions are effected and (ii) in the case of the safe harbor in section 864(b)(2)(B)(ii), to an offshore person that is a dealer in commodities (including cryptocurrency).

⁵¹ In addition to loss deferral, straddle treatment can result in the elimination or suspension of the taxpayer’s holding period for either or both positions and the capitalization of interest and carrying charges allocable to the straddle positions. See Treasury regulation section 1.1092(b)-2T(a); section 263(g).

⁵² Section 1092(c)(1), (d)(1).

definition, providing that to “be treated as actively traded, property need not be traded on an exchange or in a recognized market.”⁵³ Similarly, the Service has noted that it “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.”⁵⁴

The Treasury regulations under section 1092 clarify that “actively traded” personal property “includes any personal property for which there is an established financial market.”⁵⁵ For these purposes, the regulations define an “established financial market” to include, in relevant part, (a) “a domestic board of trade designated as a contract market by the Commodities Futures Trading Commission” and (b) an “interdealer market.”⁵⁶ In turn, the regulations define an “interdealer market” as “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.”⁵⁷ Because the definition of “actively traded” property in the Treasury regulations is not exhaustive,⁵⁸ it appears that property that is traded on an exchange may be considered actively traded for purposes of section 1092 even if the exchange does not technically qualify as an “established financial market” within the meaning of the regulations. However, determining whether a particular digital asset is actively traded for this purpose would introduce uncertainty that would not exist if Centralized Cryptocurrency Exchanges were considered established financial markets for this purpose.

Futures contracts in Bitcoin and Ether are traded on the Chicago Mercantile Exchange, which is regulated as a designated contract market by the CFTC and thus qualifies as an “established financial market” within the meaning of the Treasury regulations under section 1092. Thus, positions in Bitcoin and Ether should be subject to the straddle rules. However, a much broader array of fungible digital assets is traded on Centralized Cryptocurrency Exchanges, which are not regulated by the CFTC. Although these exchanges generally disseminate trading prices of recent transactions with respect to supported digital assets, it is not entirely clear whether they qualify as “interdealer markets” within the meaning of the above-referenced Treasury regulations, both because a Centralized Cryptocurrency Exchange may not be an interdealer market in the sense contemplated by the drafters of the regulations (who may have been contemplating the informal

⁵³ Joint Committee on Taxation, General Explanation of the Economic Recovery Tax Act of 1981 (Dec. 29, 1981) at 289.

⁵⁴ T.D. 8491.

⁵⁵ Treasury regulation section 1.1092(d)-1(a).

⁵⁶ Treasury regulation section 1.1092(d)-1(b).

⁵⁷ Treasury regulation section 1.1092(d)-1(b)(2)(i).

⁵⁸ The Treasury regulations provide that actively traded property “includes” property traded on an established financial market.

over-the-counter trading markets that exist between banks and other major financial institutions),⁵⁹ and because of the requirement that an interdealer market must provide a “reasonable basis to determine fair market value.” Thus, it is possible that taxpayers could take the view that a fungible digital asset is not actively traded, for example based on media reports that digital asset prices can be manipulated.⁶⁰

2. Recommendation

We recommend that the Service issue guidance clarifying that fungible digital assets traded on Centralized Cryptocurrency Exchanges are considered actively traded property for purposes of section 1092 on the basis that the exchanges constitute “established financial markets” within the meaning of applicable Treasury regulations. We believe that this recommendation is consistent with the legislative history of section 1092, which indicates that Congress intended the phrase “actively traded” to have a broad, functional meaning that does not require trading on a formally recognized or regulated marketplace. The Service could implement this recommendation either by clarifying that interdealer markets include Centralized Cryptocurrency Exchanges or by creating a new category of established financial market that specifically covers Centralized Cryptocurrency Exchanges.

D. Application of the Mark-to-Market Provisions of Sections 475(e) and 475(f) for Commodities Dealers and Traders to Cryptocurrency

1. Current Law

Section 475(e) allows a dealer in commodities to elect to use a mark-to-market method of tax accounting with respect to commodities held by the dealer. Section 475(f) provides a similar election to a trader in commodities with respect to commodities held in a trading business.⁶¹ For purposes of these elections, section 475(e)(2)(A) defines the term “commodity” to include “any commodity which is actively traded (within the meaning of section 1092(d)(1)).”⁶²

Under current law, as discussed in Part III.A above, it is not clear whether cryptocurrencies are considered commodities for these purposes. In addition, as noted above in the discussion of the straddle rules, although cryptocurrencies such as Bitcoin and Ether should qualify as “actively

⁵⁹ The Treasury regulations defining the term “interdealer market” were finalized in 1993.

⁶⁰ See, e.g., Christine Idzelis, *Bitcoin Prices Are Likely Manipulated, Research Affiliates Warns*, Institutional Investor (January 13, 2021), available at <https://www.institutionalinvestor.com/article/b1q3fpwznhvb0x/Bitcoin-Prices-Are-Likely-Manipulated-Research-Affiliates-Warns>.

⁶¹ See section 475(f)(2).

⁶² For this purpose, the term “commodity” also includes (a) any notional principal contract with respect to any commodity that is actively traded, (b) any evidence of an interest in, or derivative instrument in, any commodity that is actively traded or any notional principal contract with respect to such a commodity (such as an option, forward contract, futures contract, short position or similar instrument) and (c) any position that is a hedge with respect to any interest treated as a commodity under the foregoing definitions and that meets certain identification requirements. See section 475(e)(2)(B)-(D).

traded” within the meaning of section 1092(d)(1) and section 475 because futures in Bitcoin and Ether are traded on CFTC-regulated futures exchanges, it is not entirely clear whether other cryptocurrencies traded on non-CFTC regulated cryptocurrency exchanges qualify as “actively traded” for these purposes.

2. Recommendation

We recommend that the Service issue guidance providing that cryptocurrencies are commodities for purposes of section 475(e) and section 475(f) as long as they qualify as “actively traded” within the meaning of section 1092(d)(1),⁶³ either as part of guidance treating cryptocurrencies as commodities for all purposes under the Code (as described in Part III.A, above) or under guidance specific to section 475.

In this regard, we observe that the legislative history of sections 475(e) and 475(f) suggests that in enacting these provisions, Congress was focused principally on expanding the availability of mark-to-market accounting to fungible exchange-traded assets in respect of which mark-to-market accounting provides for a clear reflection of income:

Mark-to-market accounting generally provides a clear reflection of income with respect to assets that are traded in established markets. For market-valued assets, mark-to-market accounting imposes few burdens and offers few opportunities for manipulation. Securities and exchange-traded commodities have determinable market values, and securities traders and commodities traders and dealers regularly calculate year-end values of their assets in determining their income for financial statement purposes. Many commodities dealers also utilize year-end values in adjusting their inventory using the lower-of-cost-or-market method for Federal income tax purposes.⁶⁴

In view of this legislative history, we believe it is reasonable to take an expansive view of the types of assets that can qualify as commodities for purposes of section 475(e) and section 475(f), and to interpret these sections as applying to any cryptocurrencies that are actively traded for purposes of section 1092. We see no policy reason to prevent dealers and traders from electing into mark-to-market treatment with respect to cryptocurrencies for which actual trading prices are readily available.⁶⁵

⁶³ See our recommendation in Part III.C above relating to when fungible digital assets should be considered “actively traded” for this purpose.

⁶⁴ H.R. Rep. No. 105-148, 105th Cong., 1st Sess. (June 24, 1997).

⁶⁵ Given the many complexities and uncertainties surrounding the tax treatment of cryptocurrencies (including in respect of items like staking rewards received in respect of proof-of-stake cryptocurrencies (see the discussion in Part III.H), and the clear reflection of income provided by a mark-to-market system, it may be worthwhile for Congress to consider expanding elective mark-to-market tax accounting treatment to investors in cryptocurrencies, in contrast to the current rules which limit such treatment to dealers and traders in such assets (even if they are determined to be commodities).

As noted in the introduction, the Green Book contains a similar legislative proposal under which digital assets would be added as a third category of assets that may be marked to market at the election of a dealer or trader under rules similar to the rules under section 475 for securities and commodities. Although it would be preferable to enact this proposal through new legislation, we believe that the Service could reasonably achieve a similar result in the absence of new legislation by clarifying the application of current section 475 to cryptocurrency in the manner described above.⁶⁶

E. Gain/Loss on the Lending of Cryptocurrency

1. Overview of Cryptocurrency Loans

The tax treatment of transactions involving the lending of cryptocurrencies is uncertain. Of particular importance, there is no direct guidance addressing whether a lender of cryptocurrency realizes any gain or loss in connection with making the loan or upon return of the lent cryptocurrency. One industry estimate indicates that the volume of cryptocurrency loans and other digital assets in 2021 was more than \$130 billion, representing a nearly six-fold increase over the lending volume in 2020.⁶⁷ Given the substantial built-in gains inherent in many cryptocurrency positions, whether gain or loss is recognized in connection with cryptocurrency lending is a significant issue for many taxpayers.

In contrast to securities loans, which are typically undertaken pursuant to standard-form securities lending agreements⁶⁸ drafted in a manner intended to ensure tax-free treatment for the securities lender, there are as yet no industry-standard documents for loans of cryptocurrencies. The bespoke nature of cryptocurrency loan documents leads to wide divergences in key features of the lending arrangements, including the duration of the loan (that is, whether the loan has a fixed term or is payable on demand), the collateralization of the lender's obligation to repay the loan and the manner in which hard forks, airdrops and other similar transfers of additional digital assets that may be made in respect of the loaned cryptocurrency are passed through to the lender.

In addition, many cryptocurrency loans are made in DeFi transactions through smart contracts (as discussed in Part I above), without any need for legal documentation, third-party custodians or off-blockchain payments. DeFi loans of cryptocurrency can occur on a bilateral basis between two discrete network addresses, or they can occur on a pooled basis in which any number of network participants dynamically contribute assets to or remove assets from a lending pool and get a pro-rata portion of the loan fees generated by the pool. Although this Report generally does not address the tax treatment of DeFi transactions, the considerations relevant to

⁶⁶ We note in this regard that under the Green Book proposal, it appears that a taxpayer could elect mark-to-market treatment for eligible digital assets but not for commodities, or vice versa, since digital assets are treated as a third and separate category of assets eligible for mark-to-market treatment under section 475.

⁶⁷ See Genesis Q4 2021 Market Observations available at <https://genesistrading.com/wp-content/uploads/2022/01/Genesis21Q4QuarterlyReport-final3.pdf>.

⁶⁸ The standard form agreements for documenting securities loans include (i) the Global Master Securities Lending Agreement produced by the International Securities Lending Association or (ii) the Master Securities Loan Agreement published by the Securities Industry and Financial Markets Association.

the tax treatment of cryptocurrency loans made using DeFi are generally consistent with those relevant to cryptocurrency loans documented through more traditional legal arrangements.

2. Background and Current Law

a. *Inapplicability of Section 1058 to Cryptocurrency Loans*

Section 1058(a) provides that no gain or loss is recognized on the transfer of securities (as defined in section 1236(c)) pursuant to an agreement satisfying the requirements of section 1058(b). An agreement meets the requirements of section 1058(b) if the agreement: (i) provides for the return to the transferor of identical securities; (ii) requires that payments be made to the transferor of amounts equivalent to all interest, dividends and other distributions which the owner of the securities is entitled to receive during the loan's term; and (iii) does not reduce the risk of loss or opportunity for gain of the transferor of the securities in the securities transferred.

The nonrecognition rule of section 1058(a) applies only to the transfer of a "security," which is defined to include only "any share of stock in any corporation, certificate of stock or interest in any corporation, note, bond, debentures, or evidence of indebtedness, or any evidence of an interest in or right to subscribe to or purchase any of the foregoing."⁶⁹ As a result, cryptocurrency loans are ineligible for nonrecognition treatment under section 1058.⁷⁰

b. *Pre-Section 1058 Authorities Regarding the Treatment of Securities Loans*

Due to the inapplicability of section 1058 to cryptocurrency loans, the question arises whether a loan of cryptocurrencies may qualify for non-realization treatment without the benefit of section 1058 and, if so, under what circumstances. In addressing this question, it is useful to revisit the state of the law concerning securities loans prior to the enactment of section 1058 in 1978. In the pre-section 1058 landscape, a series of rulings and other government pronouncements consistently concluded that securities loans did not cause the lenders to recognize gain or loss with respect to their transfer of the lent securities.

The earliest of these authorities held that no gain or loss would be recognized in connection with the making of a securities loan, albeit without articulating the specific reasoning for such a finding.⁷¹ In Revenue Ruling 57-451,⁷² the Service first provided a conceptual legal justification

⁶⁹ Section 1236(c).

⁷⁰ However, a loan involving a digital asset that is properly characterized as debt or corporate stock for federal income tax purposes (which would not be "cryptocurrency" as we have defined that term for purposes of this Report) presumably would qualify under section 1058 for nonrecognition treatment if the loan agreement satisfies the requirements of that provision. This could be the case with respect to loans of stablecoins that are characterized as debt for tax purposes (as discussed in Part III.F below) and security tokens that are treated as ownership of an underlying security for tax purposes.

⁷¹ See, e.g., 1948 IRS Letter to New York Stock Exchange, Reprinted in 5 CCH 1948 Stand. Fed. Tax Rep. P6136 (concluding that no gain or loss is recognized by a taxpayer upon the lending of its stock).

⁷² 1957-2 C.B. 295.

for this conclusion, holding that a securities loan was a tax-free exchange under section 1036 (that is, an exchange of common stock for common stock of the same issuer). Of course, section 1036 would not apply to provide for tax-free treatment in the case of a cryptocurrency loan. However, it is important to note that Revenue Ruling 57-451 addressed a situation where the lent stock had been acquired pursuant to the exercise of a qualified stock option. Under section 421 (the predecessor of current section 424), any “disposition” of such shares would be taxable unless the disposition occurred pursuant to a nonrecognition provision, including section 1036. Thus, while the ruling concluded that a loan of shares can qualify for tax-free treatment under section 1036, it did not explicitly address whether a loan of shares generally gives rise to a realization event under section 1001. This is because the peculiar structure of section 421 looked only to whether a “disposition” had occurred, with “disposition” defined in a manner that melded concepts traditionally associated with realization under section 1001 with other concepts that are not (and that ultimately did not depend on whether the disposition involved an exchange of property for property different materially in kind or extent).⁷³

The final pre-section 1058 authority that directly addressed the treatment of securities loans is General Counsel Memorandum 36948 (the “*GCM*”), which analyzed a proposed revenue ruling addressing certain aspects of securities loans. The GCM analyzed a securities loan as constituting an exchange of the lent securities for the securities that are later returned.⁷⁴ Based on this characterization, the GCM concluded that no gain or loss would be realized in connection with a securities loan because the lender should be treated as having exchanged property for other property not differing materially in either kind or extent under Treasury regulation section 1.1001-1(a).⁷⁵ In other words, the GCM viewed the lender as exchanging the lent securities for the securities that would ultimately be re-delivered to the lender (that is, a deferred exchange of securities for securities) and concluded that as long as the securities returned to the lender were not materially different than the securities it originally lent, there would be no realization event for the lender under Treasury regulation section 1.1001-1(a). While the GCM referenced Revenue Ruling 57-451, it clarified that tax-free treatment of securities loans generally did not depend on qualification for nonrecognition treatment under section 1036:

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

⁷³ Specifically, section 421(d)(4) began by stating that generally “the term ‘disposition’ includes a sale, exchange, gift, or transfer of legal title.” However, it excluded from the definition of disposition (1) transfers from a decedent to an estate or by bequest or inheritance; (2) exchanges to which sections 354, 355, 356, or 1036 (or so much of section 1031 as relates to section 1036) applies; (3) pledges or hypothecations; and (4) acquisitions of stock by joint tenancy or transfers into joint ownership (but not terminations of joint tenancy).

⁷⁴ Specifically, the GCM states: “The essence of the event is that a party transfers stock to another and receives stock in return. Accordingly, the status of this transaction as an exchange, rather than a sale and a subsequent purchase, is not diminished by the fact that there is an interim period of some duration after the trustee makes the transfer in which the trust holds only the borrower’s promise to transfer like securities in satisfaction of its obligation.”

⁷⁵ Treasury regulation section 1.1001-1(a) provides that “the gain or loss realized from the . . . exchange of property for other property differing materially either in kind or in extent is treated as income or as loss sustained.”

no realization of gain or loss under Code § 1001 because of Treas. Reg. § 1.1001-1(a). As such, the question of recognition of gain or loss is not reached under Code § 1002. Accordingly, the exchange will be nontaxable since there is no gain which could be taxed in any event, thus obviating the need to apply a specific statutory provision such as Code § 1036 so as to afford nonrecognition treatment for gain or loss realized.

In short, the GCM found that a securities loan does not result in a realization event for the lender under Treasury regulation section 1.1001-1(a) to the extent that securities that are not materially different than the lent securities are returned to the lender.

c. *Enactment of Section 1058*

Section 1058 was added to the Code in 1978 in order to bring clarity to the tax treatment of securities loans.⁷⁶ The legislative history to its enactment indicates that the “materially different” standard in Treasury regulation section 1.1001-1(a) should be the appropriate yardstick for determining whether a securities loan is taxable, stating that “[i]n order to assure that the contractual obligation does not differ materially either in kind or in extent from the securities exchanged, the committee amendment makes the provision applicable only if the contractual obligation satisfies certain specified conditions.”⁷⁷ This approach aligns with the analysis in the GCM that relied on Treasury regulation section 1.1001-1(a) for non-realization treatment. However, in contrast to the analysis in the GCM, and as discussed in more detail below, the legislative history of section 1058 looks to whether the contractual right to a return of the lent securities is materially different from the lent securities, rather than viewing the securities loan as a deferred exchange and looking only to whether the securities returned upon termination of the loan are identical to the securities lent at inception of the loan.

3. Recommendation

We recommend that the government issue regulations under section 1001 providing that a cryptocurrency loan that meets certain requirements (as discussed below) will not be treated as an exchange of property for other property materially differing in kind or in extent, and thus will not result in the realization of gain or loss by the lender.⁷⁸ Such an approach would be consistent with

⁷⁶ P.L. 95-345. The Senate Report noted that “uncertainty has developed as to the correct income tax treatment of certain securities lending transactions. As a result, some owners of securities are reluctant to enter into such transactions.” S. Rep. No. 762, 95th Cong., 2d Sess. 7 (1978); 1978-2 C.B. 357, 359.

⁷⁷ S. Rep. No. 762, 95th Cong., 2d Sess. 7 (1978).

⁷⁸ Some practitioners have observed that the fact that section 1058 is drafted as a nonrecognition provision could give rise to an inference that it was intended as the exclusive path to achieving nonrecognition for asset loans. However, we believe that the better understanding of section 1058 is as a safe harbor for qualifying securities loans, and that where section 1058 is not available, general section 1001 principles apply to determine whether a particular asset loan results in realization of gain or loss on the loaned asset. *See, e.g.*, New York State Bar Association Tax Section, *Report on the Taxation of Securities Loans and the Operation of Section 1058* (June 9, 2011) (“In our view, section 1058 should operate as a safe harbor.”); American Bar Association Tax Section, *Securities Loans Task Force Report on Securities Lending Transactions Governed by Section 1058* (Apr. 22, 1991) (“The final regulations should make clear that Section 1058 is a safe harbor from tax recognition and that whether a disposition of loaned securities occurs, resulting in the realization of

the pre-section 1058 approach to securities loans discussed above.⁷⁹ In addition, without the issuance of guidance preventing realization treatment for cryptocurrency loans, and in the absence of an extension of the wash sale rules in section 1091 to digital assets, taxpayers would presumably be able to enter into loans of cryptocurrency with a built-in loss in order to accelerate such a loss without meaningfully changing their economic positions.

In making this recommendation, we have considered that one of the reasons for the enactment of section 1058 was to eliminate any uncertainty regarding the tax treatment of securities loans, based on the view that securities loans play an important role in the proper functioning of securities markets. The trading and lending of cryptocurrencies is a relatively recent development, and although we have no view on whether the government has a similar interest in ensuring the proper functioning of cryptocurrency trading and lending markets, there is little question that cryptocurrency trading and lending markets represent a significant and rapidly growing feature of the financial economy. We expect that providing guidance in this area would help bring future cryptocurrency loans into conformity with whatever standards the government views as appropriate for non-realization treatment. In addition, we observe that although certain pre-section 1058 authorities alluded to the need to provide certainty to the securities market, the authorities (and in particular the GCM) ultimately based their analysis on strong technical footing that did not need to rely on tax policy objectives.

We note that both Revenue Ruling 57-451 and the GCM analyzed a securities loan as an exchange of the lent securities for the securities that are returned (that is, a deferred exchange),⁸⁰ and not as an exchange of the lent securities for the contractual right to a return of those securities. In contrast, the legislative history to the enactment of section 1058 appears to look to whether the contractual right to a return of the lent securities is materially different from the lent securities. Even if regulations were to use a deferred exchange approach similar to that used in Revenue Ruling 57-451 and the GCM, we believe it would be sensible for the regulations to require that the economic position of the cryptocurrency lender with respect to the cryptocurrency not be materially altered as a result of the loan. Accordingly, in determining when a lender of cryptocurrency should realize gain or loss as a result of the loan, we recommend that the regulations focus on whether the lender's economic rights with respect to the cryptocurrency under the loan agreement are materially different from the rights it held in the lent cryptocurrency.

income or loss, should be determined by reference to Section 1001 realization principles rather than by regulations promulgated under Section 1058.”).

⁷⁹ We recognize that, subject to certain exceptions, a taxpayer generally recognizes gain or loss under section 988 upon its loan of foreign currency. Section 988(c)(1)(B) and (C). However, the rules relating to the lending of foreign currency are simply different than those relating to loans of other types of property. Further, the 2014 Notice made clear that virtual currency “is not treated as currency that could generate foreign currency gain or loss” for federal income tax purposes and that “[g]eneral tax principles applicable to property transactions apply to transactions using virtual currency.” Notice 2014-21, Q&A 1 and 2.

⁸⁰ See, e.g., *Starker v. United States*, 602 F.2d 1341 (9th Cir. 1979) (holding that the transfer of real property and receipt of replacement property qualified as a like-kind exchange under section 1031, notwithstanding the delay between the original transfer and the receipt of replacement property).

In determining whether a cryptocurrency loan results in materially different economic rights, we believe that the section 1058(b) requirements provide a useful starting point. This approach seems sensible because, as discussed above, the legislative history to the enactment of section 1058 indicates that the requirements of section 1058(b) were intended to ensure that the right to the return of the lent securities is not materially different from the lent securities themselves. The section 1058(b) requirements, however, would likely require modifications in order to take into account differences between securities and cryptocurrencies. We discuss below how the section 1058(b) requirements could be modified to apply to loans of cryptocurrencies in a manner that appropriately takes into account the differences between securities and cryptocurrencies, while allowing the right to a return of the lent assets to not be materially different from the lent assets.

a. *Right to a return of identical cryptocurrencies*

We recommend that the regulations require that the cryptocurrency loan agreement provide for the return to the transferor of cryptocurrency identical to the lent cryptocurrency, similar to the requirement in section 1058(b)(1) for securities loans. In this regard, we note that while each unit of cryptocurrency has a unique ownership history traceable on the blockchain, that history should not cause a unit of cryptocurrency not to be considered identical to another unit of the same type of cryptocurrency.⁸¹ In particular, the fact that units of a cryptocurrency trade fungibly should demonstrate that the market views the units to as identical regardless of their separate ownership history.

b. *Right to receive material property that the lender would have received in the absence of the loan*

Under section 1058(b)(2), a qualifying securities loan must entitle the lender to payments equivalent to all interest, dividends and other distributions which the owner of the securities is entitled to receive during the loan's term. This requirement is reasonably straightforward to apply in the case of securities, as most interest and dividends are of a known amount, are paid in cash and are easily transferred. In contrast, for many cryptocurrencies, particularly those whose holders are entitled to hard forks⁸² and airdrops,⁸³ a requirement for the cryptocurrency lender to receive

⁸¹ This is similar to the treatment of certificated shares of stock as identical even though each share certificate is unique.

⁸² A hard fork occurs when the participants in a blockchain-based cryptocurrency protocol disagree as to the rules that should apply to the protocol and cause the blockchain to "fork" into two separate blockchains (one for the original digital asset and one for a new digital asset complying with the new rules). Because the blockchain history of ownership and transactions is identical on each blockchain up until the hard fork, each holder of the original digital asset at the time of the hard fork receives a corresponding amount of the new digital asset while continuing to own its original digital asset.

⁸³ An airdrop occurs when a new type of digital asset is created and is distributed (free of charge), generally to encourage awareness and use of the new asset. Airdrops may be structured as distributions in respect of (and in proportion to) existing digital assets, but they may also be structured as random distributions to blockchain network addresses. Because airdrops randomly distributed to blockchain network addresses do not relate to ownership of a particular underlying digital asset, references in this section to airdrops are limited to

payments equivalent to all of these amounts can be more challenging. This is because digital assets issued pursuant to hard forks and airdrops can have immaterial value and may not be supported by digital asset exchanges and custodians, which means that it may not be feasible to access or transfer the digital assets.

We first observe that because hard forks and airdrops may not be supported by major digital asset custodians and providers of digital asset wallets, it is not clear that the failure of a cryptocurrency borrower to pass through hard forks and airdrops to the lender should be viewed as meaningful in any case in which an actual holder of the lent cryptocurrency that holds its cryptocurrency through a digital asset custodian would not have received the benefit of the hard fork or airdrop because the new asset is not supported.

In any event, because the materially different standard in section 1001 permits non-realization treatment where immaterial differences exist, a sensible approach to equivalent payments in the context of cryptocurrency loans would be to require the making of equivalent payments only in the context of hard forks and airdrops that are material. To this end, certain market participants have entered into cryptocurrency lending agreements that require a pass-through of hard forks and airdrops based on the presence of one of various objective indicia that the newly distributed tokens resulting from a hard fork or airdrop have material value within a specified period of time (for example, 30 days) of their transfer. These indicia can include the following:

- the average market capitalization of the new digital assets distributed in the airdrop or hard fork is at least a threshold percentage of the average market capitalization of the lent digital assets,
- the average trading volume of the new digital assets distributed in the airdrop or hard fork is at least a threshold percentage of the average trading volume of the lent digital assets, and
- the new digital assets distributed in the airdrop or hard fork are supported by specified cryptocurrency exchanges, custodians or wallet providers.

The conceptual basis for using such factors for determining whether a new digital asset is required to be passed through to the lender is that a new digital asset that fails to satisfy any of these factors should be considered immaterial for purposes of section 1001. While a provision incorporating these types of factors should be helpful in providing for the pass-through to the digital asset lender of material items that the lender otherwise would have received had it not made the loan, it is conceivable that material items of property would not be passed through under this approach, or that distributed digital assets that are not material at the time of their distribution later become material during the term of the loan. As a result, we think it would be reasonable to combine an approach that looks to certain objective indicia of materiality (along the lines described above) with a catch-all provision that would require the cryptocurrency borrower to transfer to the lender any new digital asset that the lender would have received had it not lent the cryptocurrency within

distributions that are paid to the owners of a particular digital asset in proportion to the number of units of the digital asset they own immediately before the distribution.

a short period of time (for example, five days' notice) upon the lender's request made during the term of the loan. This approach would result in the automatic pass-through of many or most material new digital assets under the objective indicia, but would allow the lender to receive any other new digital assets upon demand during the term of the loan. This approach ought to satisfy the materially different standard because a digital asset lender's failure to request that a new digital asset be passed through should strongly indicate that the new digital asset is immaterial.

Lastly, we note that at least one cryptocurrency protocol — the Algorand protocol — periodically mints new units of its cryptocurrency and issues the new units to all existing holders of its cryptocurrency in proportion to the units they held immediately prior to the issuance (generally referred to as “participation rewards”). In contrast to mining rewards or staking rewards, which are discussed in greater detail in Part III.H below, participation rewards are issued without regard to whether the recipient stakes its cryptocurrency with the protocol or performs mining or validation activity, apparently as a means of stimulating interest in the cryptocurrency. Given that participation rewards are received in the units of the same cryptocurrency (and thus should be easy to access and transfer), we would expect that regulations would require that any participation rewards either be passed through to the lender or increase the amount of cryptocurrency that must be returned to the lender at maturity.

c. *No reduction of the lender's risk of loss or opportunity for gain with respect to the lent cryptocurrencies*

Similar to section 1058(b)(3), we recommend that the regulations require that the cryptocurrency loan agreement not reduce the lender's risk of loss or opportunity for gain in the lent cryptocurrencies. For example, any term of the cryptocurrency loan that affects the lender's economic profile with respect to the lent cryptocurrencies (for example, a provision that would change the number of units of the cryptocurrency to be returned to the lender depending on the performance of the digital asset) should disqualify the loan from non-realization treatment under section 1001.

Consideration should be given to whether a cryptocurrency loan must be terminable by the lender on short notice in order to satisfy this requirement. The proposed regulations under section 1058 provide that in order to satisfy the requirement not to reduce the lender's risk of loss or opportunity for gain, the securities lending agreement must provide that the lender may terminate the loan upon not more than five business days' notice.⁸⁴ These regulations have never been finalized. Further, many taxpayers have taken the position that a term securities loan does not violate the requirement in section 1058(b)(3) both because the taxpayer's economic relationship to the lent asset is unchanged by the loan and because a lender that wished to reduce or eliminate its exposure to the asset could do so without terminating the loan by entering into a hedging transaction. However, the Tax Court and the Ninth Circuit rejected these arguments in the case of *Samueli v. Commissioner*,⁸⁵ suggesting that in the context of securities loans, the ability of the

⁸⁴ Proposed Treasury regulation section 1.1058-1(b)(3).

⁸⁵ 132 T.C. 37 (2009), *aff'd* 661 F.3d 399, 402 (9th Cir. 2011).

lender to terminate the loan on short notice is necessary in order to satisfy the requirement that the loan not change the lender's risk or loss or opportunity for gain.

If a requirement to terminate a loan on short notice is included in cryptocurrency lending regulations, we believe a reasonable approach would be to use the five-business-day recall period from the proposed regulations under section 1058. This approach would bring securities loans and digital asset cryptocurrency loans into rough conformity while appropriately addressing the concerns raised by the courts in *Samueli*.

The Service could also conceivably determine that a different recall period is appropriate in the context of cryptocurrency loans. The five-business-day recall period in the proposed section 1058 regulations was based on the standard settlement cycle for sales of securities at the time the regulations were proposed. In theory, cryptocurrency transfers may be effected at any time, as blockchain-based settlement can occur 24 hours a day, seven days a week. In addition, the settlement of blockchain-based transactions generally can be completed on a same-day basis, although settlement may be delayed for certain cryptocurrencies during periods of high trading volume such that a same-day transfer may not always be achievable.⁸⁶ However, even if the ability to recall a lent cryptocurrency on short notice is viewed as necessary to avoid affecting the lender's risk of loss and opportunity for gain, it is not clear why the recall period must necessarily correspond to the shortest period in which delivery could be effected. In this regard, the courts in *Samueli* avoided setting a standard for how quickly a securities loan must be terminable in order not to violate section 1058(b)(3). Further, permitting the borrower to have a reasonable period of time to return any recalled cryptocurrencies would be consistent with the materially different standard in section 1001.

d. *Need for cryptocurrency loans to provide for the posting of collateral*

A final point worth addressing in regulations governing cryptocurrency loans is whether the borrower should be required to post collateral in order for the loan to qualify for non-realization treatment under section 1001. Applying the materially different standard of section 1001 might suggest that collateralization of the borrower's obligations should be required, particularly where the borrower is not a high credit quality obligor.

It is interesting to note, however, that while standard-form securities lending transactions generally require the posting of collateral by the borrower to the lender, section 1058 does not require collateralization of the borrower's obligations in order to benefit from nonrecognition treatment. The failure to include collateralization among the requirements in section 1058(b) was not an oversight. As part of the same legislation that included section 1058, Congress enacted

⁸⁶ When a market participant effects a transaction in cryptocurrency on the blockchain, the transaction generally is placed into the applicable cryptocurrency protocol's pending transactions pool. The transaction is settled when a network participant (for example, in the case of the Bitcoin protocol, a "miner") selects a "block" of pending transactions from the pool, runs a software algorithm to validate the transactions, and then adds the block to the blockchain. Because of the possibility of malicious attacks on the blockchain, merchants and other market participants that accept blockchain-based digital asset payments typically wait for several additional blocks to be added to the blockchain before accepting a particular transaction as final. The details of validation and blockchain-based settlement are described in more detail in the discussion of staking rewards in Part III.H, below.

additional rules providing beneficial treatment to tax-exempt organizations and regulated investment companies receiving lending fees and substitute payments, but only if the lending agreement provides for:

reasonable procedures to implement the obligation of the transferee to furnish to the transferor, for each business day during such period, collateral with a fair market value not less than the fair market value of the security at the close of business on the preceding business day⁸⁷

The relevant legislative history states that “[i]n most cases, the loan of securities is fully collateralized (with adjustments made on a daily basis) by cash or marketable securities However, no collateral is provided if securities are borrowed from margin accounts.”⁸⁸ It thus appears that Congress understood that most securities loans were fully collateralized, yet it generally did not make tax-free treatment dependent on the presence of collateral. This is particularly relevant because the legislative history indicates that the section 1058(b) requirements were intended to ensure that the right to a return of the securities would not be materially different from the securities themselves.

Of course, regulations could require collateralization of a cryptocurrency loan in order for the loan to satisfy the materially different standard. It is unclear, however, what tax policy would support requiring collateralization for cryptocurrency loans as a pre-condition for tax-free treatment, while not requiring collateralization in the case of comparable securities loans.

Lastly, we note that as described in the introduction, the Green Book contains a legislative proposal that would amend the securities loan nonrecognition rules under section 1058 to provide that they apply to loans of actively traded digital assets, provided that the loan has terms similar to those currently required for loans of securities. Although we generally endorse this proposal (and would prefer a legislative approach to address loans of cryptocurrency), we recommend that if Congress enacts the proposal, the requirement to pass through all property received in a hard fork, air drop or similar event in respect of the lent cryptocurrency be loosened in the manner discussed above in light of the potential difficulty in passing through certain immaterial property received in respect of the lent cryptocurrency. Further, we believe that the Service could achieve a similar result in the absence of new legislation by issuing regulations in the manner described above.

F. Treatment of Stablecoins

1. Overview

In general, the term “stablecoin” is used broadly to refer to a digital asset whose value is tied to the value of another asset. The assets referenced by stablecoins are most often fiat currency (for example, U.S. dollars or euros), but they can also consist of commodities or other digital assets. In general, stablecoins are used to transact and transfer value on the blockchain without exposing the holder to the price volatility of cryptocurrencies like Bitcoin and Ether. Stablecoins

⁸⁷ Sections 512(a)(5)(B)(i) and 851(b)(2)(A).

⁸⁸ S. Rep. No. 95-762, 95th Cong., 2d Sess. (1978).

are a competitor to traditional payment processors. Stablecoins can also be used to engage in DeFi transactions including loans that could not be executed with fiat currency due to their on-blockchain nature.

Most stablecoins are pegged to the value of the U.S. dollar. U.S.-dollar pegged stablecoins saw substantial growth in 2021, with a combined circulating supply of nearly \$130 billion as of September 2021 (reflecting a year-over-year increase of more than 500 percent).⁸⁹ U.S.-dollar pegged stablecoins typically are tied to the value of the U.S. dollar through an off-blockchain arrangement in which a sponsoring legal entity permits holders to convert each stablecoin into one U.S. dollar on demand through an account maintained by the sponsor (hereinafter, “*Sponsored USD Stablecoins*”). No interest is paid to holders by the issuer of Sponsored USD Stablecoins. This Report only addresses the treatment of Sponsored USD Stablecoins.⁹⁰

The sponsor of a Sponsored USD Stablecoin may hold reserves to ensure repayment of the stablecoin. The nature and extent of such reserves, and the information provided by the sponsor about the reserves, can vary significantly. In certain cases, sponsors have retained independent accounting firms to publish periodic audits substantiating that each dollar of stablecoin outstanding is backed by liquid reserves including bank deposits, money market funds and other high-quality debt instruments. However, in the case of at least one prominent sponsor, there is considerable uncertainty regarding the nature and extent of its reserves, and the CFTC and other governmental authorities have challenged its representations with respect to its reserves.⁹¹

The legal rights of a holder of a Sponsored USD Stablecoin against the sponsor or any reserve assets also vary widely by stablecoin. In certain cases, it is not clear that a holder has an enforceable legal claim against the sponsor, as the sponsor’s user agreement appears to permit the sponsor to suspend redemptions at any time and for any reason. In other cases, holders appear to have enforceable legal rights against the sponsor, although it is not necessarily clear whether the obligation is a full-recourse claim against the sponsor or a non-recourse claim to the reserve assets,

⁸⁹ Gordon Liao & John Caramichael, *Stablecoins: Growth Potential and Impact on Banking*, Board of Governors of the Federal Reserve System, International Finance Discussion Papers, Number 1334 at 1 (Jan. 2022), available at <https://doi.org/10.17016/IFDP.2022.1334>.

⁹⁰ The Report does not address other digital assets commonly referred to as “stablecoins,” including stablecoins that reference fiat currency other than the U.S. dollar, cryptocurrency-backed stablecoins or so-called “algorithmic” stablecoins, which have no off-blockchain sponsor but instead algorithmically “burn” (delete) or create units of currency as necessary to maintain price stability relative to the dollar. Such instruments currently account for only a small fraction of the aggregate value and transaction volume of all stablecoins. *See id.* at 3.

⁹¹ *See* CFT Release Number 8450-21, CFTC Orders Tether and Bitfinex to Pay fines Totaling \$42.5 Million (Oct. 15, 2021), available at <https://www.cftc.gov/PressRoom/PressReleases/8450-21>; Press Release, Office of New York Attorney General Letitia James, Attorney General James Ends Virtual Currency Trading Platform Bitfinex’s Illegal Activities in New York (Feb. 23, 2021), available at <https://ag.ny.gov/press-release/2021/attorney-general-james-ends-virtual-currency-trading-platform-bitfinex-illegal>.

or whether holders have a security interest in the reserve assets or otherwise have priority in bankruptcy to the reserve assets.⁹²

2. Tax Characterization of Sponsored USD Stablecoin

Under current law, the tax characterization of Sponsored USD Stablecoin is unclear. Possible characterizations include (1) indebtedness of the sponsor, (2) ownership of a pro rata portion of the reserve assets held by the sponsor, (3) ownership of the referenced U.S. dollars or (4) a financial contract taxable as property.

a. *Characterization as Indebtedness*

The principal hallmarks of indebtedness for federal income tax purposes are that the holder has a legally enforceable right to the repayment of a sum certain on demand or on a maturity date in the reasonably foreseeable future.⁹³ Although instruments treated as indebtedness for federal income tax purposes typically have a positive yield in the form of stated interest or original issue discount, a non-yield bearing instrument such as a bank deposit or negative yield-bond can be debt for federal income tax purposes.⁹⁴

Accordingly, in cases where a holder of a Sponsored USD Stablecoin has a legally enforceable claim to demand that the sponsor redeem its stablecoin for U.S. dollars, and has a reasonable expectation that the sponsor will have sufficient liquid assets to meet a redemption demand, we believe that it would be reasonable to characterize the stablecoin as indebtedness of the sponsor for federal income tax purposes. However, in cases where the holder does not have a legally enforceable claim against the sponsor, or where it is uncertain whether the sponsor maintains sufficient liquid reserve assets to meet its redemption obligations, the classification of the stablecoin as indebtedness of the sponsor is less clear.

As a practical matter, even if the holder does not have an enforceable legal claim against the sponsor, it may have a reasonable expectation that the sponsor will not suspend or delay redemptions for commercial or reputational reasons. However, we believe it would be difficult to take the view that Sponsored USD Stablecoins that do not give the holder an enforceable legal claim against the sponsor are indebtedness under current law, particularly in cases where the

⁹² For a general discussion of stablecoins and the variation in holders' legal rights and sponsors' reserves, see President's Working Group on Financial Markets, The Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency, *Report on Stablecoins* (Nov. 2021), available at <https://home.treasury.gov/news/press-releases/jy0454> (hereinafter, "*President's Working Group Report*").

⁹³ See Notice 94-47, 1994-1 C.B. 357; see also Field Service Advice 199940007 ("The presence of a sum certain payable at maturity is a sine qua non of debt treatment under the Code.").

⁹⁴ See David Garlock, *Federal Income Taxation of Debt Instruments* (2022) at ¶ 101.02[F] (discussing negative interest on government bonds and bank deposits); see also William T. Plumb Jr., *The Federal Income Tax Significance of Corporate Debt: A Critical Analysis and a Proposal*, 26 Tax L. Rev. 369, 434 (1971) ("[C]ourts intent on sustaining a purported indebtedness have no difficulty in brushing aside the absence or inadequacy of interest as perhaps an adverse, but certainly not a conclusive, factor").

sponsor's reserves are uncertain. This may lead to different tax treatment for instruments that are perceived as substantially equivalent by the market.

b. *Other Possible Characterizations*

i. Ownership of Reserve Assets

Under general principles of tax ownership, a contractual interest that gives the holder a legal claim on an underlying asset may be treated for tax purposes as ownership of the underlying asset if the holder possesses benefits and burdens substantially equivalent to those a legal owner of the asset would have. Thus, for example (and as described in Part III.G below), an American Depositary Receipt (“*ADR*”) — which gives the holder a claim on an underlying share of stock of a non-U.S. issuer held by a depositary, including the right to vote the stock and exercise other shareholder rights, and is readily exchangeable for the stock — is generally treated for federal income tax purposes as ownership of the underlying stock.⁹⁵

As discussed above, sponsors of Sponsored USD Stablecoins may hold reserves to back their redemption obligations, typically in the form of bank deposits or other high-quality debt instruments. Accordingly, another possible characterization of a Sponsored USD Stablecoin is as direct ownership of a pro rata portion of the debt instruments or other reserve assets held by the sponsor. In general, we believe this characterization is inappropriate, as the holder of a Sponsored USD Stablecoin typically has no direct claim on, or rights with respect to, any assets held by the sponsor as reserves (including any right to income generated by those assets) and no control over what assets are held in reserve.⁹⁶ In addition, as noted above, the nature and extent of a sponsor's reserves may be subject to considerable uncertainty.

ii. Ownership of Dollars

Another possible characterization of Sponsored USD Stablecoin is as ownership of dollars pursuant to a bailment or similar arrangement. In general, however, loans of money including bank deposits and similar instruments are treated as indebtedness rather than as bailments, both for federal income tax purposes⁹⁷ and for applicable legal and regulatory purposes.⁹⁸ In contrast, bailments may arise with respect to a loan of non-cash property.⁹⁹ In addition, because the reserve assets of a sponsor generally consist of dollar-denominated debt instruments, and not dollars

⁹⁵ See Revenue Ruling 65-218, 1965-2 C.B. 566; Revenue Ruling 72-271, 1972-1 C.B. 369; see also Private Letter Ruling 199931005; Private Letter Ruling 200322005.

⁹⁶ See President's Working Group Report at 4.

⁹⁷ See, e.g., Revenue Ruling 61-222, 1961-2 C.B. 58 (concluding that “interest paid on indebtedness represented by deposits in banks engaged in the general banking business” are not subject to section 265).

⁹⁸ See Timothy C. Harker, *Bailment Ailment: An Analysis of the Legal Status of Ordinary Demand Deposits in the Shadow of the Financial Crisis of 2008*, 19 Fordham J. of Corp. & Fin. L. 543 (2014).

⁹⁹ Cf. General Counsel Memorandum 35183 (concluding that a loan of fungible property may give rise to a bailment even where the borrower commingles the lent assets with other assets).

themselves, it is difficult to see how Sponsored USD Stablecoin could be treated as ownership of dollars for federal income tax purposes.

iii. Other Property

To the extent that a Sponsored USD Stablecoin is not classified as indebtedness of the sponsor, as ownership of the underlying reserve assets or as dollars, it should be classified as non-debt property for federal income tax purposes like other cryptocurrencies.

3. Recommendation

Because the characterization of an instrument as indebtedness for federal income tax purposes can have a variety of important consequences even where no interest is paid, we recommend that the Service issue guidance providing that Sponsored USD Stablecoins having certain features (including legal enforceability and collateralization with high-quality debt instruments) will be characterized as indebtedness for federal income tax purposes.¹⁰⁰ We also recommend that guidance be issued clarifying that Sponsored USD Stablecoins that are not treated as indebtedness for federal income tax purposes should be treated as property other than debt, and not as ownership of reserve assets or dollars.

G. Treatment of Wrapping

1. Background

Certain cryptocurrencies may be “wrapped” in order to convert those cryptocurrencies into a form that is compatible with, and thus usable on, a different blockchain. Wrapping thus provides a “bridge” between different blockchains, allowing the holder of the wrapped digital asset to continue to have the economics of the asset being wrapped, but with functionality that otherwise is unavailable for the asset. Similarly, wrapping may be used to convert a cryptocurrency into a different token traded on the same blockchain that can be used in smart contracts that do not permit the original cryptocurrency to be used directly.¹⁰¹

While there can be significant variations in how a cryptocurrency is converted into a wrapped version of the cryptocurrency, it is useful to consider for illustrative purposes how Bitcoin may be converted into “wrapped Bitcoin” or “wBTC.” wBTC is an ERC-20 token (that is, a token

¹⁰⁰ Given the current uncertainty regarding the appropriate tax characterization of USD Sponsored Stablecoins, we think the Service should consider whether to allow taxpayers to apply any guidance regarding such characterization on a prospective basis only. In particular, we recognize that the characterization of Sponsored USD Stablecoins as debt for federal income tax purposes could implicate information reporting requirements for periods prior to the implementation of the new digital asset information reporting regime enacted as part of the Infrastructure Bill. We believe that at least in cases where such characterization was not clear as a matter of existing law, it would be unreasonable for taxpayers to be held liable for penalties due to the failure to provide information reporting statements with respect to transactions in USD Sponsored Stablecoins in light of confusion regarding their tax characterization and, more broadly, the uncertain application of information reporting rules to digital assets prior to the enactment of the Infrastructure Bill.

¹⁰¹ For example, a taxpayer may convert Ether into wETH for broader use on the Ethereum blockchain.

that is compatible with the Ethereum blockchain) that exists because holders of Bitcoin may not use their Bitcoin on the Ethereum blockchain due to a lack of compatibility. If Bitcoin is wrapped (thus becoming wBTC), however, the wBTC becomes usable on the Ethereum blockchain, without losing or otherwise altering the holder's original economic exposure to Bitcoin. We understand that wBTC is backed on a one-for-one basis by Bitcoin held in a segregated wallet by a custodian, which can be publicly verified at all times by merchants and other market participants.

A holder of Bitcoin may request through a "merchant" to convert its Bitcoin into wBTC at any time. The merchant then makes a request to a custodian to "mint" a number of wBTC units equal to the number of Bitcoins being converted. The custodian will receive the user's Bitcoin, which it will hold in custody, and will issue the wBTC to the merchant to be transferred to the holder. If a holder of wBTC would rather hold the underlying Bitcoin (that is, it would like to unwrap the wBTC), it may request through a merchant that the custodian release an equivalent amount of Bitcoin from custody in exchange for the wBTC, in which case the wBTC will be "burned" or eliminated. The process of minting new wBTC or burning wBTC generally occurs within 48 hours of instructions being received.

While understanding the relationship between Bitcoin and wBTC is useful, we note that the manner in which the minting and burning of wrapped cryptocurrency occurs can vary significantly. For example, it is possible that the minting and burning of wrapped cryptocurrency may occur through the use of smart contracts, where in lieu of a custodian receiving and re-delivering the underlying cryptocurrency, computer code is used to accomplish such transfers. As another example, it is conceivable that a custodian that receives cryptocurrency and issues corresponding wrapped cryptocurrency may have discretion to transfer the underlying cryptocurrency.

2. Tax Treatment of Wrapping, Unwrapping and Exchanging Wrapped Cryptocurrency

An important issue related to wrapping is whether gain or loss is recognized when (i) a holder of cryptocurrency exchanges it for a wrapped version of the same cryptocurrency (that is, "wrapping" or "minting"), (ii) a holder of a wrapped cryptocurrency exchanges the wrapped cryptocurrency for the underlying cryptocurrency (that is, "unwrapping" or "burning") or (iii) a holder of a wrapped cryptocurrency engages in an exchange of the wrapped cryptocurrency for the underlying cryptocurrency in a market transaction (as opposed to unwrapping or burning). For federal income tax purposes, a taxpayer should recognize gain or loss in connection with such a wrapping, unwrapping or exchange transaction only if both (i) the transaction results in a transfer of ownership of the asset treated as held by the taxpayer to another person as determined for federal income tax purposes and (ii) the transfer of ownership occurs pursuant to an exchange of property for other property differing materially in kind or in extent.¹⁰²

Courts and the Service have generally applied a "benefits and burdens" test to determine whether tax ownership of an item of property has been shifted to another party. Under this test, the party that possesses the benefits and burdens of ownership of an item of property is considered

¹⁰² See Treasury regulation section 1.1001-1(a).

to be the tax owner of that property.¹⁰³ In the context of financial assets, the benefits and burdens typically considered in determining tax ownership include (i) the ability to benefit from appreciation in the asset, (ii) the detriment of suffering depreciation in the asset, (iii) the right to receive distributions or other payments with respect to the asset, (iv) the right to exercise any voting or similar rights with respect to the asset and (v) the ability to control the disposition of the asset.¹⁰⁴

In a variety of contexts, a taxpayer is treated as maintaining tax ownership of property when (i) the taxpayer transfers the property to another person, (ii) the transferee has no ability to rehypothecate or otherwise dispose of the property and (iii) the taxpayer has the right to demand a return of the property. For example, an ADR serves a function similar to that of wrapped cryptocurrency by allowing the ADR holder to receive the economic profile of owning the share of stock underlying the ADR while providing the holder with the ability to transfer the ADR on an exchange where the underlying share is not traded. The Service has consistently held that for federal income tax purposes the holder of an ADR is treated as directly owning one share of the underlying stock.¹⁰⁵

Similarly, where a taxpayer's transfer of property is coupled with the recipient's obligation to return identical property to the transferor, a bailment, as opposed to a sale or exchange, of the property is generally found to exist.¹⁰⁶ Further, where a bailee retains a portion of the fungible good as payment for the services rendered, this does not prevent the finding of a bailment.¹⁰⁷

In each of the cases noted above, the ADR or bailment arrangement does not alter the benefits and burdens of ownership possessed by the beneficial owner. Cryptocurrency wrapping arrangements are meant to serve a similar purpose and, subject to the discussion below, allow the holder of the wrapped cryptocurrency to maintain the benefits and burdens of ownership of the underlying cryptocurrency.

As an initial matter, we observe that the wrapping of cryptocurrency should only result in a transfer of tax ownership (which could potentially be a realization event) if another person becomes the owner of the cryptocurrency for federal income tax purposes. Accordingly, in cases

¹⁰³ See, e.g., Revenue Ruling 82-144, 1982-2 C.B. 34; *Frank Lyon Co. v. United States*, 435 U.S. 561, 582-84 (1978); *Grodt & McKay Realty, Inc. v. Commissioner*, 77 T.C. 1221, 1237-38 (1981).

¹⁰⁴ *Miami National Bank v. Commissioner*, 67 T.C. 793 (1977); Revenue Ruling 82-144, 1982-2 C.B. 34.

¹⁰⁵ See sources cited *supra* note 95.

¹⁰⁶ See, e.g., General Counsel Memorandum 35183 (Jan. 2, 1973) (“... where a product is delivered to a refinery or mill and the processed product of the identical article delivered is to be returned to the original owner in a new form, it is a bailment, and title never vests in the manufacturer.”).

¹⁰⁷ See, e.g., *San Carlos Milling Co., Ltd. v. Commissioner*, 24 B.T.A. 1132, 1140-41 (1931), *aff'd*, 63 F.2d 153 (9th Cir. 1933) (where sugar factory received sugar cane and processed it but retained a percentage of the cane as compensation for its services, the Board of Tax Appeals concluded it was irrelevant that the sugar cane was commingled); General Counsel Memorandum 35183 (“... the fact that a manufacturer is paid in a share of the manufactured article, or a share of net profits, or on a stated sum, does not change a bailment into a sale.”) (citing 8 C.J.S. Bailment, sec 3(7)).

where a custodian receives the cryptocurrency being wrapped and has no right to transfer the cryptocurrency to another person, the relevant question is whether the custodian or the original holder of the cryptocurrency possesses the benefits and burdens of its ownership. Notably, this can be contrasted with the lending of cryptocurrency described in Part III.E above, where the borrower has the unfettered ability to transfer the cryptocurrency to a third party, which would clearly be the tax owner thereof by virtue of possessing the benefits and burdens of the cryptocurrency. It is this ability of the transferee (that is, the borrower) of borrowed cryptocurrency to vest ownership in third parties through transfer that necessitates analysis of the lending using the materially different standard in section 1001, rather than a comparison of the benefits and burdens held by the cryptocurrency lender and borrower.

In cases where the custodian has no right to transfer the underlying cryptocurrency, the original holder (or its successor) (i) experiences all economic appreciation or depreciation in the value of the cryptocurrency and (ii) has the ability to control the disposition of the cryptocurrency by unwrapping the wrapped cryptocurrency at any time. The only potentially meaningful right relating to the cryptocurrency that may not be possessed *in full* by the holder of the wrapped cryptocurrency is the ability to benefit from hard forks or airdrops that are received by the holder of the cryptocurrency. For example, while wBTC custodians indicate that they generally intend to provide the holders of wBTC with hard forks and airdrops received with respect to the underlying Bitcoin, in some circumstances they may not pass these items through to the wBTC holder either (i) due to safety or security concerns or (ii) because the cost of supporting the new asset outweighs its value to wBTC holders. Nevertheless, even where the holder of wrapped cryptocurrency does not benefit from all hard forks and airdrops distributed in respect of the underlying cryptocurrency, the benefits and burdens of the cryptocurrency held by the holder (including all appreciation and depreciation in value in, and the right to dispose of, the cryptocurrency) should substantially outweigh the benefits and burdens held by the custodian (in this case, whatever right the custodian may have to any hard forks or airdrops that it does not pass through to holders).¹⁰⁸

Where the wrapped cryptocurrency is issued by a smart contract (rather than a custodian), it would appear even less likely that tax ownership would be viewed as transferred because a smart contract should not be treated as a person that can possess tax ownership.

Finally, even if tax ownership is transferred in connection with the minting or burning of wrapped cryptocurrency (for example, where the custodian has the right to transfer the underlying cryptocurrency to third parties), it would appear that the exchange of the cryptocurrency for the wrapped cryptocurrency (or *vice versa*) should be analyzed using the materially different standard under Treasury regulation section 1.1001-1(a) to determine whether the transferor realizes gain or loss.

3. Recommendation

For the reasons discussed above, we recommend that the Service issue guidance clarifying that the holder of wrapped cryptocurrency is treated as the owner of the underlying cryptocurrency

¹⁰⁸ It would appear that any hard forks or airdrops retained by the custodian in such a case would be appropriately characterized as additional fees received by the custodian.

for federal income tax purposes so long as (i) the custodian or other holder of the underlying cryptocurrency has no right to transfer the cryptocurrency to any other party and (ii) the holder has the ability to exchange the wrapped cryptocurrency for the underlying cryptocurrency at any time.¹⁰⁹ In any circumstance where a wrapping arrangement does not satisfy either of the requirements in our recommendation, and the failure to satisfy such requirement causes the holder of the wrapped cryptocurrency not to be treated as the owner of the underlying cryptocurrency, we believe that the exchange of the cryptocurrency for the wrapped cryptocurrency should be analyzed using the materially different standard in Treasury regulation section 1.1001-1(a) in a manner substantially similar to that used in determining whether a loan of cryptocurrency results in a realization event under section 1001.

H. Treatment of Staking Rewards

As discussed in the introduction to this Report, the use of proof-of-stake cryptocurrencies has risen significantly in recent years. The increased use of proof-of-stake cryptocurrencies has given greater urgency to questions about the tax treatment of the staking rewards received by holders who deposit (“stake”) their cryptocurrency with the underlying software protocol, validate transactions and add those transactions to the protocol’s blockchain as part of its proof-of-stake consensus mechanism. In particular, guidance is needed on whether staking rewards should be included in gross income when received, and if so, how they should be sourced.

In order to provide a sound foundation for determining the appropriate tax treatment of staking rewards, it is helpful to understand how proof-of-stake cryptocurrency protocols operate, including the role that staking rewards play in a proof-of-stake protocol’s consensus mechanism and how they compare to the mining rewards distributed by proof-of-work protocols like Bitcoin and Ethereum. Accordingly, we begin by providing an overview of cryptocurrency consensus mechanisms based on our understanding of how those consensus mechanisms operate, then turn to consider how existing principles relevant to the determination of whether a particular item constitutes gross income — and the source of that income — should apply to staking rewards.

1. Overview

a. *Cryptocurrency Consensus Mechanisms*

As discussed in the introduction, the two essential features of a cryptocurrency protocol that enable the decentralized network of participants to agree on the transfer and ownership of the cryptocurrency without the involvement of a trusted third-party intermediary are the distributed ledger and the consensus mechanism.

Generally, a distributed ledger can be thought of as a spreadsheet that is broadcast to network participants and describes every transaction that has occurred on the blockchain (and, as a corollary, the public network address of the current owner of each digital asset on the blockchain). A distributed ledger is not itself sufficient for reaching trustless consensus on the

¹⁰⁹ Note that for the reasons described above, we believe that the holder of wrapped cryptocurrency should be treated as the owner of the underlying cryptocurrency regardless of the extent to which hard forks and air drops are passed through to the holder.

validity of the transactions reflected on the ledger — it is simply a mechanism for distributing and preserving the transaction history on which the network has agreed. For example, if each network participant could freely modify the ledger, nothing would prevent an unscrupulous participant from transferring cryptocurrency for physical goods or services, erasing the transaction from the distributed ledger once the goods or services are received and then spending the same cryptocurrency on other goods or services a second time (the so-called “double spending” problem).

To solve this problem, blockchain protocols require a consensus mechanism — a decentralized, tamper-resistant process of agreement through which a majority of network participants can assent to one “true” global dataset of ownership and transaction history.

i. Proof of Work

Bitcoin and Ethereum — the two most popular cryptocurrency protocols as measured by market capitalization — currently use a proof-of-work consensus mechanism. Very generally, in a proof-of-work cryptocurrency protocol, the right to validate new transactions and add them to the blockchain is allocated to so-called “miners” in exchange for finding an acceptable solution to an arbitrary cryptographic puzzle (the “work” or “mining”). The level of difficulty of this puzzle may be algorithmically adjusted by the protocol as necessary to ensure that the network’s transaction settlement speed remains constant.¹¹⁰

The mining process typically begins when a miner selects a batch of transactions (a “block”) from the protocol’s pending transaction pool and runs an automated cryptographic process that compares the proposed transactions to the existing blockchain and identifies any double spending or other invalid transactions (a process referred to as “validation”). Importantly, validation is a computational process separate from (and far less energy intensive than) solving the cryptographic puzzle. Once the miner has validated the transactions included on its proposed block and computed an acceptable solution to the mining puzzle, the proposed block is broadcast to other network participants, which verify the validation process.

If the network accepts the proposed block, it is added to the blockchain, and the miner is rewarded with additional units of the relevant cryptocurrency (generally referred to as “block rewards” or “mining rewards”). Mining rewards generally consist of both transaction fees paid by the users whose transactions are validated as well as new units of cryptocurrency generated (“minted”) by the protocol. If the proposed block is instead rejected by the network because it contains one or more fraudulent or otherwise invalid transactions, the miner receives no rewards, but has still incurred the sunk costs required to mine the rejected block. This incentive structure punishes miners that propose invalid transactions and rewards miners who perform accurate validation.

¹¹⁰ The puzzle is solved by computers through an iterative process of guess and check. As an example, in the case of the Bitcoin protocol’s mining puzzle, it would take a retail PC many decades or even centuries to mine a single Bitcoin at the puzzle’s current level of difficulty.

Although proof of work appears to be effective as a blockchain consensus mechanism, it consumes an enormous amount of energy.¹¹¹ Accordingly, a number of more recently developed cryptocurrencies like Cardano, Solana, Polkadot and Tezos utilize a so-called “proof-of-stake” consensus mechanism, which solves the energy inefficiency of proof-of-work mechanisms while purporting to offer comparable security.

ii. Proof of Stake

In a proof-of-stake protocol, the right to validate a block of new transactions and add it to the blockchain is generally allocated to network participants in proportion to the number of units of cryptocurrency they stake with the network. Although proof-of-stake protocols vary, certain protocols “lock up” the staked cryptocurrency for some period of time, meaning that it cannot be transferred or otherwise used (for example, the staker forgoes the opportunity to lend the cryptocurrency to a third party during the lock-up period to generate loan fees).

Upon being allocated a validation right in respect of its staked cryptocurrency, a network participant selects and validates a block of pending transactions from the protocol’s pending transaction pool. The validation process is substantially similar to validation in proof-of-work protocols: that is, the participant runs a cryptographic computational process that compares the proposed transactions to the current state of the blockchain and identifies any double spending or other invalid transactions. The validator then broadcasts the proposed block to other network participants, which verify the validation process.

If the proposed block is accepted by the network, the validator typically receives staking rewards. As in the case of mining rewards, staking rewards generally consist of both transaction fees paid by the users whose transaction fees are validated as well as new units of cryptocurrency minted by the protocol. If the proposed block is rejected by the network, the validator does not receive staking rewards and its staked cryptocurrency may be reduced (“slashed”) as a penalty. The validator’s staked tokens can thus be thought of as a security deposit intended to ensure accurate validation.

In summary, whereas proof-of-work protocols allocate the right to validate transactions to miners based on the ability to solve arbitrary, energy-intensive computations, proof-of-stake protocols typically allocate validation rights to holders of the protocol’s cryptocurrency based on how much of that cryptocurrency they stake with the network. In the former case, validators are incentivized to record transactions accurately both because of the uncompensated energy and hardware costs they incur if they propose an invalid block (the stick) and because the protocol distributes mining rewards for accurate validation (the carrot). In the latter case, validators are incentivized to accurately record transactions both because of the risk that their staked cryptocurrency will be slashed for inaccurate validation (the stick) and because the protocol distributes staking rewards for accurate validation (the carrot).

¹¹¹ Jon Huang et al., *Bitcoin Uses More Electricity Than Many Countries. How Is That Possible?*, N.Y. Times (Sept. 3, 2021).

b. *Composition of Mining and Staking Rewards*

As discussed above, both mining and staking rewards generally consist of two components: (x) new units of cryptocurrency minted by the protocol and (y) fees paid by the network participants whose transactions are included on the block of transactions that is validated by the miner or staker, denominated in existing units of the cryptocurrency.

The proportion of staking rewards that consists of transaction fees as opposed to newly minted cryptocurrency varies significantly by protocol and over time. For example, when a cryptocurrency protocol experiences a period of high transaction volume, transaction fees typically spike and may account for a larger proportion of the value of the mining or staking rewards issued during such periods. In addition, certain cryptocurrency protocols, including Bitcoin and Cardano, have a fixed limit on the supply of cryptocurrency that can be issued. As the protocol approaches this limit over time, it formulaically reduces the units of newly minted cryptocurrency issued to a miner or staker for validating a new block. Once the protocol has issued substantially all of the newly generated units it is programmed to issue, mining or staking rewards will consist almost entirely of transaction fees.

We understand that currently, transaction fees typically comprise a relatively small proportion of mining or staking rewards. For example, in the case of the Bitcoin protocol, transaction fees typically account for between 10 and 15 percent of the value of mining rewards. However, during periods of peak network usage, transaction fees have accounted for up to 78 percent of the value of Bitcoin mining rewards.¹¹²

c. *Proof-of-Stake Delegation*

Because many holders of proof-of-stake cryptocurrencies are retail or institutional investors that lack the technology, know-how or desire to directly validate transactions or interface with the relevant blockchain protocol, they are generally permitted to “delegate” their validation rights to a third-party validator. The third-party validator then uses the delegated validation rights to earn staking rewards, typically in exchange for an agreed percentage of the staking rewards (typically between 5 and 10 percent but sometimes up to 25 percent).

Although the mechanics of delegation depend on the particular cryptocurrency protocol and third-party validator, the validator does not necessarily gain access to the private keys necessary to transfer or otherwise dispose of the underlying staked cryptocurrency. In certain cases, the beneficial owner can use its private keys to create separate managerial keys, which can then be delegated to the validator solely for the purpose of performing the validation. However, a third-party validator’s actions may cause delegated cryptocurrency to be “slashed,” in which case the beneficial owner’s staked cryptocurrency may be reduced by the protocol.

Notably, there are variations between proof-of-stake protocols in how staking rewards are distributed in the case of delegated validation. In certain cases, staking rewards for delegated units of cryptocurrency are credited directly to the account of the third-party validator, which in turn transfers a portion of the rewards to the beneficial owner. In other cases, the staking rewards are

¹¹² See <https://stats.buybitcoinworldwide.com/fees-percent-of-reward/>

credited to the beneficial owner of the cryptocurrency, which then pays a portion of the rewards to the validator. In either case, the payments between the validator and the beneficial owner may occur automatically on the applicable blockchain (for example, through a smart contract), although the parties may also enter into a traditional legal agreement setting out the terms of the delegation arrangement.

Delegation may also occur on a “pooled” basis, in which case multiple beneficial owners of a proof-of-stake cryptocurrency delegate their cryptocurrency to a pool (which may be maintained by a third-party validator or jointly by some or all of the contributing beneficial owners) and receive a pro rata share of the total staking rewards earned by the pool over a period of time, generally after allocating a portion of the staking rewards earned by the pool to the person or persons that maintain the pool.

2. Treatment as Gross Income

a. *Current Law*

In the 2014 Notice, the Service stated, without analysis, that mining rewards received by miners from a proof-of-work protocol are includable in gross income when received at their fair market value on the date of receipt.¹¹³ Although the Service has not issued any specific guidance on the tax treatment of staking rewards, it is difficult to identify a strong basis for treating staking rewards differently than mining rewards for purposes of measuring gross income (other than arguably in relation to the dilutive aspect of staking rewards, as discussed below). Economically, both types of rewards are generated by the protocol or transferred by other network participants in exchange for validating transactions and participating in the protocol’s consensus mechanism, thereby ensuring the security of the protocol’s blockchain.

Certain practitioners and taxpayers have asserted that staking rewards earned directly by a beneficial owner of proof-of-stake cryptocurrency that stakes its cryptocurrency and performs validation should not be includable in gross income, advancing two separate rationales in support of that position. First, they argue that in this context, staking rewards are akin to manufactured property or another type of self-created property and should therefore be excluded from income until disposed of by the taxpayer.¹¹⁴ Second, they assert that staking rewards should not be includable in income to the extent the rewards are “inflationary” or “dilutive” — that is, to the extent the receipt of the rewards dilutes the value of the recipient’s total holdings of the applicable proof-of-stake cryptocurrency (an argument predicated on the assumption that the aggregate value

¹¹³ See 2014 Notice, Q&A 8 (“when a taxpayer successfully ‘mines’ virtual currency, the fair market value of the virtual currency as of the date of receipt is includable in gross income”).

¹¹⁴ A taxpayer has made this argument in a case currently pending in the U.S. district court for the Middle District of Tennessee. See *Joshua Jarrett et al. v. United States*, No. 3:21-cv-00419. The government recently moved to dismiss the case as moot after granting the taxpayer’s requested refund of approximately \$4000. The taxpayer opposed the motion, which remains pending before the district court. The government’s decision to grant a refund has led at least one cryptocurrency industry group to declare that “the IRS may no longer attempt to tax tokens created through staking.” Nathan J. Richman & Mary Katherine Browne, *Tax Pros Burst Overeager Cryptocurrency Community Bubble*, Tax Notes (Feb. 21, 2022).

of all units of a particular cryptocurrency is static at any given point in time, such that issuing more units dilutes the value of the existing units). We discuss each of these arguments in turn below.¹¹⁵

As a threshold matter, it should be clear that to the extent staking rewards are attributable to transaction fees transferred by other network participants, as described in Part III.H.1.b above, those amounts should constitute gross income. Specifically, the argument that staking rewards should be viewed as manufactured property is not applicable to property that previously existed in the hands of another participant. Similarly, staking rewards funded by transaction fees paid by other network participants are not dilutive, because the increase of the recipient's share of the total cryptocurrency outstanding is equal and offsetting to the decrease in the payor's proportionate interest in the cryptocurrency. Consequently, the arguments described below to exclude the receipt of staking rewards from gross income should reasonably be applied only to the portion of the rewards consisting of new units of cryptocurrency minted by the protocol (and not to the portion of the rewards consisting of transaction fees).

Turning to the arguments for excluding newly minted staking rewards from gross income, proponents of the manufactured-property argument assert that the party engaged in the staking activity should be treated as creating the newly minted cryptocurrency, which should accordingly not be taxed until a disposition. In support of this view, proponents observe that the software protocol that generates the new units of cryptocurrency is not a "person" in the tax sense, and thus, for example, no individual or entity would have the potential to receive a deduction for the issuance of the newly minted cryptocurrency. For the same reason, they observe, the new cryptocurrency cannot be treated as received in a barter exchange, because a barter necessarily involves an exchange between two persons, where the item received in the barter exchange serves as a substitute for cash or other remuneration. Rather, staking activity involves the interaction of the holder of the cryptocurrency with the cryptocurrency protocol with the intention and reasonable expectation of creating additional cryptocurrency, which is created out of whole cloth as a result of the actions of the recipient and should therefore be viewed as a form of manufactured property.¹¹⁶

We believe that even accepting that it is technically unclear whether the receipt of newly minted cryptocurrency can be a barter exchange, it is more appropriate to analogize the receipt of staking rewards to a barter exchange than to manufacturing, because the protocol is a decentralized computer network that reflects the collective will of its participants, and the rewards are received for participating in its consensus mechanism and thereby securing the integrity of its blockchain. In addition, we believe that staking rewards should constitute gross income irrespective of whether they are received in a barter exchange. That is, the treatment of staking rewards as gross income

¹¹⁵ We note that the argument for excluding staking rewards from gross income as manufactured property should apply with equal force to block rewards received by miners. Therefore, given the lack of analysis in the 2014 Notice concerning the treatment of mining rewards, it would be helpful for any guidance addressing the treatment of the receipt of staking rewards to address mining rewards as well.

¹¹⁶ In accordance with the normal tax accounting rules for manufactured property, income would be realized under this view only upon the sale, exchange or disposition of the cryptocurrency. *See* Treasury regulation sections 1.61-3 (deriving gross income from "total sales" in the context of a manufacturing business); 1.61-6 ("Gain realized on the sale or exchange of property is included in gross income.").

upon receipt should be appropriate as long as (i) the receipt of the rewards is treated as income under general principles (including the standard set forth by the Supreme Court in *Commissioner v. Glenshaw Glass Co.*¹¹⁷) and (ii) the rewards are not affirmatively treated as manufactured property or self-created property subject to specific tax rules that defer recognition of income until the property is sold.¹¹⁸

In *Glenshaw Glass*, the Supreme Court concluded that property generally was includible in gross income when there is an “undeniable accession[] to wealth, clearly realized, and over which the taxpayers have complete dominion.”¹¹⁹ Where staking rewards are received, the recipient has an accession to wealth (subject to the discussion below regarding whether the rewards are dilutive), the amount is clearly realized, and the staker has dominion and control over the staking rewards. Thus, in the absence of an exception, staking rewards would appear to be gross income when received.¹²⁰

We recognize that for certain classes of created property — such as manufactured goods, extracted natural resources, farmed crops and self-created intellectual property — specific tax rules provide or suggest that recognition of income is deferred until the property is sold.¹²¹ However, these rules relate to property that is manufactured, produced or created directly through the actions of the taxpayer, like widgets in the case of a manufacturer or crops in the case of a farmer. In contrast, staking rewards are generated by a software protocol and then delivered to the taxpayer in exchange for taking certain actions relating to the software protocol’s consensus mechanism. In other words, while the taxpayer’s actions led to its receipt of the staking rewards, the staking rewards were not created by the taxpayer’s actions (which simply involve validating transactions involving other units of the same cryptocurrency). By way of analogy, suppose a machine existed that could create valuable assets (for example, diamonds) but required periodic maintenance, and that the machine automatically issued the assets to any person who successfully performed the maintenance. We believe that the maintenance reward would be currently includable in income, and that the analogy — however far-fetched it may currently be as a technological matter — is simply an illustration of how blockchain protocols operate.

Commentators have also suggested that the receipt of staking rewards should not give rise to gross income because they are at least partially dilutive and thus are akin to pro rata stock

¹¹⁷ 348 U.S. 426 (1955).

¹¹⁸ See Treasury regulation section 1.61-3 (manufactured goods, natural resources); Treasury regulation section 1.61-4 (crops); cf. section 197 (providing that only acquired intangibles are eligible for amortization).

¹¹⁹ 348 U.S. at 431.

¹²⁰ As another application of the *Glenshaw Glass* principle, we observe that “treasure trove” — that is, found property — is includable in gross income when found “to the extent of its value in United States currency,” irrespective of the fact that there is no identifiable counterparty and no barter exchange. See Treasury regulation section 1.61-14(a); cf. Lawrence A. Zelenak and Martin J. McMahon, Jr., *Professors Look at Taxing Baseballs and Other Found Property*, Tax Notes (Aug. 30, 1999) at 1299 (observing the “unanimity of expert opinion” among tax practitioners that catching a record-breaking baseball is treasure trove).

¹²¹ See sources cited *supra* note 118.

dividends.¹²² Under this view, staking rewards and mining rewards are somewhat different in that the former are transferred by the applicable cryptocurrency protocol roughly in proportion to existing holdings of the relevant cryptocurrency — at least to the extent that a holder of the cryptocurrency participates in staking — whereas the latter are transferred to miners based on computing power regardless of whether they hold existing units of the underlying cryptocurrency.

The proponents of the second argument for excluding staking rewards from gross income assert, in effect, that there has been no accession to wealth to the extent the value of the staking rewards is offset by a decrease in value of the aggregate cryptocurrency held by the recipient and point by analogy to the treatment of pro rata stock dividends. We acknowledged the potential merit of this argument in the Prior Report, at least in the case of proof-of-stake networks in which participation in staking is high. In general, however, staking rewards are not paid pro rata to all holders of the relevant cryptocurrency, since not all holders participate in staking,¹²³ different holders may stake their currency in different proportions and participation in staking can change over time.¹²⁴ In addition, holders who participate in staking will not receive staking rewards if they fail to validate transactions or perform improper validation, and may also have their staked currency reduced as a consequence.

For these reasons, we believe it would be difficult to craft rules that appropriately isolate the dilutive component of staking rewards and treat it differently than the component that reflects an accretion to wealth, and that any such rules would likely be very burdensome for the Service and taxpayers to apply. In addition, we find the analogy to pro rata stock distributions unconvincing. From an economic perspective, neither pro rata cash dividends nor pro rata stock dividends result in an accretion to wealth, yet cash dividends are taxable when received.¹²⁵ Thus, in the context of corporate distributions, the technical rules are less concerned with whether the taxpayer is richer than with whether a particular event is an appropriate time for a shareholder level tax on corporate earnings to be imposed. In this regard, the legislative history of section 305(a) states that “as long as a shareholder’s interest remains in corporate solution, there is no appropriate occasion for the imposition of a tax.”¹²⁶ In other words, in the context of the rules for pro rata

¹²² See, e.g., Abraham Sutherland, *Cryptocurrency Economics and the Taxation of Block Rewards*, Tax Notes (Nov. 19, 2019).

¹²³ Holders may choose not to participate in staking for a variety of reasons, including the risk of slashing, the fact that they hold their cryptocurrency through a custodian that does not support staking with respect to that cryptocurrency or minimum staking requirements set by the applicable protocol.

¹²⁴ See, e.g., Galaxy Digital Research, *Ready Layer One: Ethereum & Other Smart Contract Platforms* (Nov. 4, 2021), available at <https://www.galaxydigital.io/our-research/> (indicating that as of November 2021, participation in staking for major proof-of-stake protocols like Polkadot, Cardano and Solana ranges between 56.9 percent in the case of Polkadot to 78 percent in the case of Solana).

¹²⁵ In the case of pro rata cash dividends, this result obtains because the shareholder’s direct interest in the distributed cash or property is offset by a decrease in the value of its shares. In the case of pro rata stock dividends, this result obtains because each shareholder’s percentage interest in corporate assets and earnings remains unchanged.

¹²⁶ See S. Rep. No. 1622, 83d Cong., 2d Sess. 44 (1954) (“As long as a shareholder's interest remains in corporate solution, there is no appropriate occasion for the imposition of a tax. Accordingly, the general rule is that no tax is imposed upon the distribution of stock rights and stock dividends whether or not a particular

stock dividends, Congress focused on the lack of any change in the legal rights of the shareholder vis-à-vis the distributing corporation's assets and earnings, which is conceptually distinct from the question of whether or not the taxpayer has an economic accretion to wealth. It is not clear that this rationale translates readily to the context of staking rewards issued by a cryptocurrency protocol, which do not reflect a claim on underlying corporate assets or earnings but instead have intrinsic value like fiat currency, gold or other commodities. In any event, unlike pro rata stock dividends, staking rewards will almost invariably have an accretion-to-wealth component for the reasons described above, and we believe that the mere fact that they may also have a dilutive component is not a sufficient basis to exclude them from gross income.¹²⁷

Even if one does accept, as a conceptual matter, the merits of either or both arguments discussed above for excluding newly minted cryptocurrency received as staking rewards from gross income, an approach that bifurcates staking rewards into transaction fees (which should be gross income) and newly minted units of the cryptocurrency would be difficult to administer, as it may not be technically possible or practically feasible for reward recipients to determine what portion of their rewards were newly minted as opposed to representing transaction fees, particularly in the case of delegated staking.¹²⁸

Lastly, we observe that the preceding discussion may not apply in the same manner where the beneficial owner of a proof-of-stake cryptocurrency does not directly stake its cryptocurrency with the underlying protocol and itself perform the validation activities. As noted in Part III.H.1.c above, many holders of proof-of-stake cryptocurrency delegate their cryptocurrency to a third-party validator, which performs the validation that results in the staking rewards. In this context, the question of whether the beneficial owner of the staked cryptocurrency has gross income depends in the first instance on the appropriate characterization of the delegation arrangement. As discussed in more detail in Part III.H.3 below, it may be reasonable to characterize the arrangement between the beneficial owner and the validator as a license and the amounts ultimately received by the beneficial owner as a royalty. This characterization would appear to foreclose both the manufactured property argument and the dilution argument in respect of the amounts received by the beneficial owner.¹²⁹ In addition, the amounts retained or otherwise received by the validator

shareholder's proportionate interest in the corporation is varied, but rather is postponed through the application of the pertinent basis provisions.").

¹²⁷ In addition, as noted above, a premise of the dilution argument is that the aggregate value of all units of a particular cryptocurrency is static at any given point in time. However, unlike in the case of pro rata stock dividends by a corporation that has discrete assets and earnings, it is not entirely clear as an economic matter that this is the case in the context of staking rewards distributed by a cryptocurrency protocol.

¹²⁸ We acknowledge that if one accepts the premise of the dilution argument that a cryptocurrency protocol has a fixed aggregate value at any given point in time, it may be possible to develop a formulaic approach that arguably results in a clearer reflection of income (for example, an approach that periodically calculates the percentage of the total outstanding units of a cryptocurrency that are staked and treats a portion of any newly minted staking rewards as tax free determined by reference to that percentage). In practice, however, we believe such an approach could be difficult for the Service to administer and for taxpayers to apply, including because the factual inputs to any formulaic approach would vary by protocol and over time.

¹²⁹ In contrast, under other potential characterizations that may be available in respect of a delegation arrangement, the manufactured property and dilution arguments are not necessarily precluded (for example,

should not be viewed as dilutive, because the rewards earned by the validator are not a function of the amount of the underlying cryptocurrency beneficially owned by the validator.

b. *Recommendation*

For the reasons discussed above, we recommend that the Service issue further guidance clarifying that staking rewards are includable as gross income when received at their fair market value at such time.¹³⁰

3. Sourcing

a. *Current Law*

There is currently no direct guidance on the source of staking rewards that are includible in gross income. Where the rules do not address how to determine the source of a particular type of income, the source of such income generally is determined by analogy (that is, by using the sourcing rules applicable to the type of income that is most like the income in issue).¹³¹ For this purpose, in determining what type of income is generated by a relevant transaction, courts look to the economic substance of the transaction.¹³²

Economically, it is not entirely clear what type of income staking rewards reflect. On the one hand, one might view the entire amount of staking rewards as compensation for validation services, with staked cryptocurrency simply viewed as a security deposit intended to ensure accurate validation. On the other hand, the economics of typical delegation arrangements (that is, arrangements whereby a beneficial owner of a proof-of-stake cryptocurrency delegates the cryptocurrency to a third-party validator to perform the validation, discussed in more detail in Part III.H.1.c above) suggest that the value of the actual validation services is relatively low in comparison to the overall value of staking rewards, as delegation arrangements generally leave the

if the delegation arrangement is viewed as a services agreement or subcontract, or, in the case of a “pooled” staking arrangement, if the arrangement is viewed for federal income tax purposes as a partnership).

¹³⁰ We note that this recommendation does not necessarily extend to all rewards that may be distributed by cryptocurrency protocols. For example, there are strong arguments that when the Algorand protocol periodically issues participation rewards to all holders of its cryptocurrency pro rata in proportion to their existing holdings (as described in greater detail in Part III.E.5 above), nothing meaningful has changed in the legal or economic rights of the holders. That is, to the extent that a cryptocurrency protocol can be thought of as having an aggregate value, or as allocating to a holder of its cryptocurrency a proportionate share of its governance rights, the holder’s receipt of the participation reward has no effect on its percentage share of the protocol’s aggregate value or governance rights. Accordingly, we believe that participation rewards could reasonably be excluded from gross income.

¹³¹ See *Container Corp. v. Commissioner*, 134 T.C. 122, 131 (2010), *affd. per curiam in unpublished opinion*, 2011-1 U.S.T.C. para. 50,351 (5th Cir. 2011) (explaining that the source of income not covered by a sourcing rule is determined by analogy to the most similar type of income for which there is a sourcing rule) (citing *Hunt v. Commissioner*, 90 T.C. 1289, 1301 (1988); *Howkins v. Commissioner*, 49 T.C. 689, 693-95 (1968); *Bank of Am. v. United States*, 680 F.2d 142, 147 (Ct. Cl. 1982)).

¹³² See *Bank of Am. v. United States*, 680 F.2d at 147; *Container Corp. v. Commissioner*, 2011-1 U.S.T.C. para. 50,351.

validator with only a small fraction of any staking rewards resulting from its validation activity (typically between 5 and 10 percent but sometimes up to 25 percent). The economics of such delegation arrangements suggest that at least some component of staking rewards (and potentially the greater component) is more akin to passive income, which is supported by the fact that staked cryptocurrency may be subject to a “lock up” period during which it cannot be transferred or loaned to generate lending fees.¹³³ Accordingly, it is not readily apparent whether or to what extent any existing category of income could serve as a reasonable analogy for purposes of determining the source of staking rewards.

To the extent that staking rewards are treated as income from the performance of services, such services income should be sourced to the location where the services are “performed.”¹³⁴ This approach would require taxpayers and withholding agents to make highly factual and potentially difficult determinations regarding the location where the validator “performs” the validation. Although validation is principally an automated computational process performed by software that runs on servers, human support personnel may be required to keep the servers and software running. Accordingly, it is not clear whether the validation should be treated as performed in the location of the servers or in the location of the support personnel, raising the possibility that taxpayers will simply take the most favorable position under their circumstances. Thus, sourcing staking rewards as services income could create significant differences in tax outcomes as a consequence of potentially trivial and easily manipulable factual distinctions (consider, for example, whether a domestic recipient of staking rewards should be able to change the source of the rewards merely by running its validation software on offshore servers).

Another possible approach would be to source staking rewards by analogy to passive investment income like interest paid for the use of money (which generally is sourced to the tax residence of the payor¹³⁵) or royalties paid for the use of intangible property (which are sourced to the location where the payor “uses” the intangible property¹³⁶). An obvious difficulty with such an approach is that it generally would render the source of staking rewards indeterminate, because the payor is an open-source software protocol that does not have a tax residence and is not housed in a legal entity or geographically limited to any particular jurisdiction.

A third approach would be to bifurcate the rewards into services income and passive income. However, aside from the fact that this approach would suffer from both of the deficiencies identified above, it is not clear that there is an economically sensible or practically feasible way to

¹³³ Consider an extreme analogy in which three shareholders each own one third of the stock of a corporation and randomly get chosen by the corporation to perform a ministerial task (say, walking into the office and pushing a button). Suppose further that the corporation pays a shareholder \$100 each time it gets selected to push the button, that shareholders get selected to push the button randomly in proportion to how much stock they own and that a random person on the street would be willing to push the button for \$10. On these facts, it would arguably be reasonable to treat \$90 of the payment as a non-pro-rata distribution of some kind, rather than as services income.

¹³⁴ See section 861(a)(3).

¹³⁵ See section 861(a)(1).

¹³⁶ See section 861(a)(4).

achieve such bifurcation. One possible approach would be to bifurcate the rewards by reference to the portion attributable to transaction fees and treat that portion as paid for validation services. However, it is not clear that it is technically possible or practically feasible for taxpayers and withholding agents to determine what portion of a staking reward is attributable to transaction fees as opposed to newly minted cryptocurrency. Moreover, it is not clear that the portion of staking rewards attributable to transaction fees necessarily corresponds to the portion of the staking rewards that economically constitute remuneration for validation services (consider, for example, the case of a limited-supply cryptocurrency protocol that has reached its limit of newly minted cryptocurrency and distributes staking rewards that consist entirely of transaction fees).

The sourcing analysis for staking rewards is further complicated by the fact that a proof-of-stake cryptocurrency is often delegated by its beneficial owner to a third-party validator. In such a case, it may be reasonable to view the arrangement between the beneficial owner and the validator as a license, since right to validate transactions embedded in the cryptocurrency is an intangible property right that is transferred to the validator and used by the validator to earn staking rewards.¹³⁷ Under this characterization, the portion of the staking rewards received by the beneficial owner should be viewed as a royalty sourced to the location where the intangible property is “used” by the validator.¹³⁸ Alternatively, the delegation arrangement could be viewed as a services agreement or subcontract under which the third-party validator performs services on behalf of the beneficial owner — a view under which the staking rewards are services income and should retain their character as such in the hands of the beneficial owner. Under this characterization, the payments would be sourced to the location where the validator “performs” the services.

Under either characterization, taxpayers and withholding agents would need to make difficult and highly factual determinations regarding the location where the third-party validator “uses” the delegated cryptocurrency or “performs” the validation services, which we believe raises legitimate concerns about taxpayer electivity and administrability. In this regard, we observe that it may not be possible or practically feasible for taxpayers or withholding agents to determine where the validator’s servers or support personnel are located.

b. *Recommendation*

For the reasons described above, determining the source of staking rewards using the direct application of existing sourcing rules (or applying such rules by analogy) is extremely challenging. Specifically, (i) the character of staking reward income is unclear and could potentially involve a mix of different types of income, (ii) the character of such income might be determined in a different manner where the staking activities are delegated to a third-party validator and (iii) even if the character of such income were readily determinable, the existing sourcing provisions do not provide clear rules to determine the source of income given the particular manner in which staking

¹³⁷ This characterization may be more compelling in a case where the applicable cryptocurrency protocol distributes reward payments directly to the third-party validator, which then pays a percentage of the rewards to the beneficial owner. As discussed above, certain protocols may instead pay the rewards directly to the beneficial owner, which then pays a portion of the rewards to the validator.

¹³⁸ See section 861(a)(4).

rewards are earned. Nevertheless, it is important to both taxpayers and withholding agents to have clear rules addressing sourcing in this context.

Further, while strong arguments can be made that staking rewards should be treated, at least in part, as services income, that approach may not result in meaningful withholding tax being collected because we understand it is relatively easy for foreign holders of proof-of-stake cryptocurrencies to stake their cryptocurrency and perform validation solely through offshore servers using offshore support personnel without meaningfully affecting the validation activities.

In view of the foregoing, one approach we believe merits consideration is for the Service to issue guidance providing that the source of staking rewards, and any amounts transferred by a beneficial owner or validator in respect of staking rewards under a delegation arrangement, is determined by reference to the tax residence of the recipient.¹³⁹ A recipient-based sourcing rule may be appropriate in this context, given that a payor-based sourcing rule would definitionally result in indeterminate outcomes in many circumstances, and that the sourcing rules for other analogous categories of income like services income or royalties raises difficult legal and factual questions, resulting in uncertainty, taxpayer electivity and sourcing outcomes based on trivial and easily manipulable factual distinctions.¹⁴⁰

In this regard, we view the legal and factual uncertainty regarding the source of staking rewards as comparable, in at least in some respects, to the uncertainty that historically existed with respect to the sourcing of foreign currency exchange gain or loss on financial instruments and swap payments. In 1986, section 988 was enacted, providing among other things that exchange gain or loss on certain financial instruments is sourced by reference to the residence of the recipient. Notice 87-4¹⁴¹ then adopted a similar residence-based sourcing approach to payments on certain interest rate swaps, which was expanded in 1989 by the predecessor to current Treasury regulation section 1.863-7 to payments on notional principal contracts. We believe these residence-based sourcing regimes generally have served well in providing certainty to taxpayers and reducing electivity, reducing withholding complexity on financial instruments held by non-U.S. persons

¹³⁹ If the source of staking rewards is determined by reference to the residence of the recipient, we suggest that the principles of section 988(a)(3)(B) and Treasury regulation section 1.988-4(d) apply for purposes of determining a taxpayer's residence.

¹⁴⁰ Cf. H. Rep. 99-426 at 360 (1985), 1986-3 C.B. (Vol. 2) 1 (observing, in the context of explaining the enactment of the sourcing rules for sales of personal property under section 865, that "source rules should operate clearly without the necessity for burdensome factual determinations, limit erosion of the U.S. tax base and, in connection with the foreign tax credit limitation, generally not treat as foreign income any income that foreign countries do not or should not tax"). We note that in our 2019 report on the proposed regulations under section 861, we declined to provide a definitive recommendation with respect to determining the source of income from cloud computing transactions, which raises similar legal and factual uncertainties. See New York State Bar Association Tax Section, *Report on Proposed Section 861 Regulations* (Nov. 12, 2019). We believe, however, that the determination of source for cloud computing income is different than in the context of staking rewards, in part because the initial payor of staking rewards is a decentralized software protocol rather than an identifiable tax "person," as in the case of cloud computing income.

¹⁴¹ 1987-1 C.B. 416.

while at the same time ensuring that U.S. taxpayers who receive such payments must treat them as U.S.-source income.

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We appreciate your consideration of our recommendations. If you have any questions or comments regarding this Report, please feel free to contact us and we will be glad to discuss or assist in any way.