UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

BLOCKCHAIN ASSOCIATION, TEXAS BLOCKCHAIN COUNCIL, DEFI EDUCATION FUND

Plaintiffs,

v.

INTERNAL REVENUE SERVICE, UNITED STATES OF AMERICA, UNITED STATES DEPARTMENT OF THE TREASURY, and JANET YELLEN, in her official capacity as Secretary of the Department of the Treasury,

Defendants.

CASE NO.:

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

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**Pro hac vice motion forthcoming*

Plaintiffs Blockchain Association, Texas Blockchain Council, and DeFi Education Fund bring this action for violations of the Administrative Procedure Act (APA), 5 U.S.C. § 500 *et seq.*, and the U.S. Constitution, and allege as follows:

INTRODUCTION

1. This case is about unlawful and unconstitutional overreach by the Department of the Treasury and the Internal Revenue Service (IRS) that threatens to destroy one of America's cutting-edge, innovative technologies: decentralized finance (DeFi). DeFi software allows people to buy, sell, and exchange digital assets directly with each other, without the need for expensive and unsecure third-party intermediaries—*i.e.*, brokers. These technological advances provide significant benefits for countless Americans, including the ability to transact quickly, securely, and cheaply across the globe.

2. Many of those benefits are possible only because DeFi enables direct user-to-user transactions, without brokers. Traditional finance and banking depend on intermediaries like brokers, and that is exactly why they are often inaccessible, expensive, or unattractive for many Americans, especially those who value their privacy from large institutions and the government. DeFi, in contrast, does not rely on intermediaries like brokers. Instead, users maintain custody over their own digital assets and transact directly with each other using software. There is simply no broker-like entity involved in a decentralized transaction.

3. Despite many comments explaining that point and urging it to reconsider its proposed course, Treasury adopted a rule, Doc. No. 2024-30496, *Gross Proceeds Reporting by Brokers that Regularly Provide Services Effectuating Digital Asset Sales* (Dec. 27, 2024) (Final Rule), requiring DeFi industry participants that are not brokers to act as brokers—a requirement that will effectively end the DeFi industry. Specifically, Treasury has purported to redefine the statutory term "broker," which *Congress* defined to reach only those who, "for consideration," "effectuat[e] transfers of digital assets on behalf of another person," 26 U.S.C. § 6045(c)(1)(D), to reach anyone who provides a "trading front-end

service" or "other effectuating services," even if they do so for free and even if the service does not itself effectuate transfers. Final Rule ¶ (a)(21)(iii)(B). The Final Rule purports to require DeFi industry participants to follow onerous reporting requirements, which Congress designed for actual brokers, for *every transaction*.

4. Complying with those requirements is impossible if DeFi is to remain what it is, because complying with those requirements would require DeFi entities to *become* brokers when their defining characteristic is that they are not intermediaries. That is, the Final Rule requires the creation and insertion of intermediaries that do not exist—indeed, whose absence is the entire crux of DeFi's innovation—and whose existence would destroy DeFi's direct user-to-user framework, subject users to all the risks inherent with intermediated transactions, and deprive people of their choice to transact without relying on expensive, unsecure third-party intermediaries. But even if DeFi industry participants could somehow comply, doing so would be so cost-prohibitive—requiring participants to spend many billions of dollars, in the aggregate, to fill out billions of IRS forms—that it would functionally destroy the industry. Many if not most DeFi companies and developers will move overseas or shutter altogether, with drastic consequences for DeFi users.

5. That all will have been the result of a rule that is both unlawful and unconstitutional. It is unlawful in violation of the Administrative Procedure Act (APA), 5 U.S.C. § 500 *et seq*, because it exceeds Treasury's authority by rewriting the statute Congress wrote. That statute authorizes the IRS to require reporting from entities who "effectuat[e] transfers of digital assets," 26 U.S.C. § 6045(c)(1)(D), but DeFi's innovation is that users effectuate their own transactions with each other. The Final Rule also violates the APA's procedural requirements, because Treasury failed to engage in reasoned decisionmaking: In its haste to enact its misguided Rule, Treasury failed to consider the substantive comments made by thousands of parties during the comment period, detailing how the Proposed Rule would result in the elimination of America's DeFi industry. *See Gross Proceeds and Basis*

Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, 88 Fed. Reg. 59,576 (Aug. 29, 2023) (Proposed Rule). And when Treasury did try to justify the Final Rule, it failed to conduct the required cost–benefit analysis. That violates the APA's requirement that an agency action be "reasonable and reasonably explained." *Ohio v. EPA*, 603 U.S. 279, 292 (2024).

6. It is helpful to provide some context. America's blockchain technology companies, including DeFi industry participants, are carrying on a storied tradition of financial innovation that America has long encouraged and protected. From mutual funds to digital payment technologies, American startups have made a major difference in the lives of Americans and American businesses and communities concerned about privacy, limited government, and efficient and reliable financial transactions. Digital assets and DeFi software protocols represent another step forward, as leaders from across the political spectrum have recognized: Former President (and President-elect) Donald Trump declared that "[c]rypto is the future" and is an "incredible technology,"[1] while Vice President Kamala Harris pledged to "encourage innovative technologies like … digital assets."[2]

7. Digital assets, including cryptocurrencies like Bitcoin, are digital representations of value. In simple terms, this is how they work: Anyone with an internet connection can purchase a digital asset, store it, and send or receive currency anywhere in the world without involving a third party. Digital assets exist on blockchains, which are decentralized, digital databases that record and store transactions. Every transaction is recorded in a block added to the end of an existing chain—the blockchain—producing a ledger of every transaction. The resulting blockchain is public: anyone can see the "blocks" on the chain. The technology prevents fraud because the blocks cannot be tampered

[1] Donald Trump (@realDonaldTrump), Twitter/X (Oct. 15, 2024, 7:04 PM), https://x.com/realDonaldTrump/status/1846326266011762820.

[2] Mike Allen, *Harris Embraces Crypto, in Overture to Young Men*, AXIOS (Sept. 23, 2024), https://www.axios.com/2024/09/23/harris-embraces-crypto-overture-young-men

with and are available for all to see. The result is that unlike traditional banking, which relies on intermediaries, digital asset transactions can be virtually instant, costless, and secure—because they can go from user to user, without the wasted time, expense, and security vulnerabilities of third parties.[3]

8. Holders of digital assets can use either centralized businesses or decentralized protocols to transact with their assets. Centralized businesses are akin to traditional financial intermediaries. Users make an account with the business and deposit their assets to the business. The business then stores users' digital assets on their behalf in a wallet application that the business controls. Those businesses hold custody of users' assets in order to effectuate transactions—be it a payment, exchange, etc.—on behalf of their customers.

9. Holders of digital assets can also use decentralized trading protocols. As the name suggests, those protocols do not involve a third-party centralized operator. Instead, decentralized protocols allow users to transact with their digital assets while maintaining custody over them using "self-custodial" or "non-custodial" wallet applications, so named because no institution or entity takes or maintains custody of the assets in the wallet applications, similar to keeping cash in a physical wallet. To transfer digital assets to or from non-custodial wallet applications, users rely not on platforms or other intermediaries, but on open-source protocols accessible through their personal devices. Those protocols are sometimes built into non-custodial wallet applications, but may also be accessible via separate websites. A key aspect of these decentralized protocols is that they do not have "account" relationships with their users.

[3] For more background on blockchain technology, *see, e.g.*, Resources, BLOCKCHAIN ASSOCIATION (last visited Dec. 27, 2024), https://theblockchainassociation.org/resources-2/; Education, COIN CENTER (last visited Dec. 27, 2024), https://www.coincenter.org/education/; Learn, COINDESK (last visited Dec. 27, 2024), https://www.coindesk.com/learn/.

10. Given the benefits of transacting with digital assets, it is not surprising that the sector has grown rapidly and considerably. Digital assets are valued at over $3 trillion, and American companies are leading the way to ensure that the technology continues to develop, allowing Americans with limited or no access to traditional finance to transact with significantly fewer costs and increased privacy.

11. But all of that will come to naught if the Court does not put an end to Treasury's unlawful and unconstitutional Rule requiring DeFi industry participants who are not brokers to act and report to the IRS as brokers. Congress requires brokers to submit reports to the IRS. In the 2021 Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, § 80603, 135 Stat. 1339 (2021), Congress added a new definition of broker specific to digital assets, defining it as "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person." 26 U.S.C. § 6045(c)(1)(D).

12. Critically, Congress considered trying to apply these rules to DeFi, but ultimately decided not to—and for good reason, since DeFi does not involve brokers. BA Comment Letter 5. But Treasury paid no heed to the definition Congress enacted. In a misguided effort to apply the "broker" rules to DeFi, Treasury redefined "broker" to reach any entity that provides a "trading front-end service" and is "in a position to know the nature of the transaction potentially giving rise to" proceeds. Final Rule p. 109. That executive lawmaking goes far beyond Congress's definition—and all where Congress has delegated Treasury no authority to define who a broker is, much less to destroy an industry in the process to which Congress decided *not* to apply broker-based reporting requirements.

13. The consequence of Treasury's expansive and atextual interpretation is that entities that would never be considered brokers under *Congress's* definition now face the risk of being subject to the onerous—and in many cases, impossible—reporting requirements of Treasury's regime. By definition, DeFi involves decentralized transactions that lack a "broker." Treasury cannot extend its

power over entities that Congress has not given it authority to regulate. *Cf. National Association of Private Fund Managers v. SEC*, No. 4:24-CV-00250-O, 2024 WL 4858589, at *2 (N.D. Tex. Nov. 21, 2024). In fact, as explained further below, the Final Rule raises serious Fifth Amendment concerns because it is unclear just how far the Final Rule reaches.

14. And the Final Rule imposes a crushing burden: It requires DeFi industry participants to collect and store users' sensitive personal identifying information and file reports with the Internal Revenue Service (IRS) documenting *each and every transaction* in which users of their technology engage, as well as including cost-basis information the participants entirely lack, even though it may be impossible for them to do so precisely because they are not brokers in the ordinary (and Congress's) sense of the term. And it is just as time consuming as it sounds—in the IRS's own estimation, the compliance time burden for the digital asset industry will be more than *four billion hours annually* with an expected compliance financial burden of more than *$260 billion annually*. Joint Second Paperwork Reduction Act Letter (Exhibit 5) 4, 6; BA Paperwork Reduction Act Letter (Exhibit 3) 2-3. For perspective, the forms required by the Final Rule will increase the total paperwork burden created by the entire United States government by about one-third. BA Paperwork Reduction Act Letter 3.

15. Burden aside, the Final Rule makes no sense, and compliance is impossible even if it is not cost-prohibitive, given how DeFi and blockchain technology works. DeFi represents a transformative technology that allows consumers to transact directly with each other—without the need for third-party intermediaries like banks or other financial service companies. Transactions are recorded and verified on a publicly available ledger, without any intermediary. DeFi transactions occur on open-source protocols that, once published, are not owned or controlled. Those protocols include standards, codes, and procedures written by software developers that self-execute the transaction between two or more users once the conditions are met. Put simply, the essence of blockchain and DeFi—and what makes them capable of providing liquidity and privacy while mitigating intermediary

risk and opening up and revolutionizing low-cost finance—is that they remove the very bank-like intermediaries that might be in a position to report on transactions.

16. If the Final Rule stands, America's DeFi community will be unable to comply, because it is technologically impossible to do so; because most participants—many of them startups—cannot afford the staggering costs of compliance; or both. And even if software companies can afford to comply, compliance will existentially change the software offerings, which are not designed to collect identifying information, monitor transactions, or report information to the IRS. As a result, many, if not most, DeFi-related companies caught up in the Final Rule will either relocate overseas or will shutter entirely. That will hurt users, who will transition to using offshore services that may be less trustworthy and do not have to comply with IRS reporting requirements. That would be a devastating blow to America's role in the continued modernization of finance.

17. Fortunately, it is this Court's job, not Treasury's, to "determine the best reading" of the term "broker." *Loper Bright Enterprises v. Raimondo*, 144 S. Ct. 2244, 2247 (2024). And because the Final Rule goes beyond what Congress required in purporting to impose burdensome reporting requirements on DeFi, it exceeds Treasury's authority. The major questions doctrine underscores that point by requiring clear congressional authorization before presuming an agency's authority to impose such a drastic result as wiping out an enormous and emerging industry that has support from both sides of the aisle. There is no such clear authorization here.

18. The Final Rule is also arbitrary and capricious, in violation of the APA, 5 U.S.C. § 706(2)(A), because it does not reflect reasoned decisionmaking. Indeed, Plaintiffs and other commenters explained to Treasury that the Proposed Rule was outside Treasury's authority, did not make sense given the nature of DeFi, and would impose billions of hours and hundreds of millions of dollars in compliance burdens. As Plaintiffs explained, because some DeFi industry participants are decentralized by design, developers of such software may not know the identity of the users who transact

using such systems or stand in a position to collect or store the names and taxpayer ID numbers of those who transact in digital assets. What is more, amending the software code to require collection of such information is simply not feasible in most cases, or would fundamentally change the business model of the DeFi participant. For these same reasons, the Final Rule is arbitrary and capricious because it treats DeFi and traditional finance similarly without any recognition of the critical differences between the two, much less substantial evidence showing how the Final Rule's benefits could possibly be worth its costs. In concluding otherwise, Treasury failed to adequately respond to substantial comments and ignored an important aspect of the problem.

19. Finally, the Final Rule is unconstitutional. It is contrary to the Fourth Amendment twice over: It invades the privacy rights of the participants to a transaction, and it amounts to an unconstitutional search of the entities who are required to first collect, and then report, vast quantities of information. And the Final Rule is contrary to the Fifth Amendment because it is so vague that it does not give fair notice to regulated parties as to whether the extremely onerous reporting regimes even apply to those parties at all—not least of all because the Final Rule purports to extend to an entity "in a position to know the nature of the transaction potentially giving rise to gross proceeds from a sale of digital assets."

PARTIES

20. Plaintiff Blockchain Association is a 501(c)(6) nonprofit organization with over 100 members, including members in the Northern District of Texas. As the leading nonprofit membership organization dedicated to promoting a pro-innovation policy environment for the digital assets economy, Blockchain Association comprises leading software developers, infrastructure providers, exchanges, custodians, investors, and others supporting the public blockchain ecosystem. Blockchain Association endeavors to achieve regulatory clarity and to educate policymakers, regulators, and the courts about how blockchain technology can pave the way for a more secure, competitive, and

consumer-friendly digital marketplace. Blockchain Association is dedicated to fostering a thoughtful public policy environment for public blockchain networks so that they can develop and prosper in the United States.

21. Plaintiff Texas Blockchain Council (TBC) is a nonprofit industry association that works to make the State of Texas the jurisdiction of choice for cryptocurrency, blockchain, and digital asset innovation. Its efforts are focused on advocating for blockchain-centric public policy initiatives, and it is committed to being the leading professional association and networking venue for the cryptocurrency industry. Its members include individuals and companies interested or engaged in digital asset and blockchain technology.

22. Plaintiff DeFi Education Fund (DEF) is a 501(c)(4) nonpartisan nonprofit based in Washington, D.C., that advocates for and educates the public about sound DeFi policy. DEF focuses on explaining the benefits of decentralized finance to the public, achieving regulatory clarity for decentralized finance technology, and advocating for decentralized finance users, participants, and software and protocol developers working to create new decentralized finance products. DEF also owns and trades digital assets, including cryptocurrency, and receives donations of digital assets. DEF does not have members.

23. Plaintiffs bring this action to safeguard their interests, as well as the interests of the entire blockchain industry and American consumers. As Plaintiffs expressed in their comment letters on the Proposed Rule, Plaintiffs are concerned about the sweeping and arbitrary nature of the Final Rule, which is the latest attempt by the Treasury Department to regulate the blockchain industry by stretching laws beyond their text in ways that do not make sense and create uncertainty and unjustified hardship for a major industry.

24. If the Final Rule goes into effect, Plaintiffs, their members, and other participants in the blockchain industry will be subject to onerous regulations and compliance costs that will be so

high as to jeopardize their continued existence. Members of Plaintiffs Blockchain Association and TBC who cannot meet the reporting requirements will be forced to cease operating altogether, relocate overseas, or be subject to IRS enforcement actions. As core entities shutter, the entire U.S. blockchain industry will face the risk of collapsing.

25. For these and other reasons, Plaintiffs and their members strongly opposed the Proposed Rule. *See, e.g.*, Exhibit 1 ("BA Comment Letter"); Exhibit 2 ("DEF Comment Letter").

26. Defendant Internal Revenue Service (IRS) is a federal government agency located within the Department of the Treasury and charged with administering and supervising the execution and application of the internal revenue laws. The IRS maintains its principal offices in Washington, D.C.

27. Defendant the Department of the Treasury is a federal government agency that oversees the Internal Revenue Service. The Department maintains its principal offices in Washington, D.C.

28. Defendant United States of America acted through its agencies, the Department of the Treasury and the Internal Revenue Service.

29. Defendant Janet Yellen is the United States Secretary of the Treasury, and is sued in her official capacity.

JURISDICTION AND VENUE

30. Plaintiffs bring this action under the APA, 5 U.S.C. § 500 *et seq.* This Court has subject matter jurisdiction under 28 U.S.C. § 1331.

31. Plaintiffs have standing to challenge the Final Rule because, as detailed below, the Final Rule will directly and adversely affect and injure the members of Plaintiffs Blockchain Association and TBC, groups with associational standing, and will injure Plaintiff DEF's organizational purposes.

32. The Final Rule will require Blockchain Association's and TBC's members to spend significant resources to comply with the Final Rule. Treasury itself estimates that the average annual "time burden" to comply with the disclosure rule is 425 hours. 88 Fed. Reg. at 59,619. The result, the IRS's own Director of Digital Assets anticipates, is that the IRS will receive *eight billion* Form 1099-DA submissions. Indeed, Blockchain Association's and TBC's members will engage in many transactions each year, with each transaction requiring a new form. The Final Rule will thus require members to spend significant time filling out forms, as the IRS itself recognized. Blockchain Association's and TBC's members will also suffer significant financial harm and loss of time and resources, because the Final Rule will require them to develop new, bespoke software to attempt to comply. The Final Rule will force members, which include DeFi software and protocol developers, to write entirely new code and to edit existing code to comply with the Final Rule's mandatory reporting requirements. For some members, the Final Rule will require an immense expenditure of time; for others, it will impose a tremendous financial burden. In short, the Final Rule will fundamentally alter, and in many respects destroy, the DeFi community.

33. Blockchain Association's and TBC's members also have standing to seek redress for their constitutional injuries, including Fourth and Fifth Amendment injuries. These members include individual users transacting on the blockchain who will suffer Fourth Amendment injuries from un-constitutional searches that would reveal their entire transaction histories and entities who likely fall into the Final Rule's expansive and vague definition of "broker," and thus will be compelled—many times redundantly—to collect and report vast quantities of information about parties to a transaction. Members will also suffer Fifth Amendment injuries because the vague and open-ended definitions in the Final Rule will leave them guessing as to whether they are covered by the Final Rule, in violation of their due process rights to fair notice of the law.

34. Moreover, the interests Plaintiffs Blockchain Association and TBC seek to protect are germane to their organizational purposes, and neither the claims asserted nor the relief requested requires any individual members to participate in the suit.

35. Separately, Plaintiff DEF has organizational standing because the Final Rule injures its organizational purposes. DEF's mission is to explain the benefits of decentralized finance to the public, achieve regulatory clarity for decentralized finance technology, and realize the transformative potential of decentralized finance for everyone. It advocates for decentralized finance users, participants, and developers working to create new decentralized finance products using blockchain technology. Among other things, DEF educates the public about decentralized finance; submits public comments on proposed rulemakings that impact decentralized finance; and meets with members of Congress to discuss decentralized finance and related issues.

36. The Final Rule also causes DEF direct economic harms. DEF owns and trades digital assets, including cryptocurrency, and receives the vast majority of its donations in digital assets. By threatening the existence of the industry these digital assets operate in, the Final Rule has devalued Plaintiff DEF's digital assets. Moreover, as a holder of digital assets, DEF will suffer constitutional harms to its privacy, including Fourth Amendment harms, as a result of the Final Rule. DEF also holds governance tokens, and thus could be subject to the reporting requirements under the Final Rule.

37. Venue is proper in this district under 28 U.S.C. § 1391(e) because defendants are agencies of the United States, no real property is involved, and Plaintiff Texas Blockchain Council resides in the Northern District of Texas, because its principal place of business is in Richardson, Texas, within the district. 28 U.S.C. § 1391(c).

STATEMENT

I. Factual background

A. The blockchain industry and digital assets

38. Blockchains are a revolutionary technology that enable safe, secure, costless, and virtually instantaneous transactions. As the name suggests, blockchains comprise "blocks" and "chains." Blocks typically are data of transactional records. The blocks are linked together into a chain, block after block after block. Chains can be thought of as databases consisting of the blocks. Common examples of blockchains are Bitcoin, Ethereum, and Solana. (These terms also refer to the native digital assets associated with these blockchains.) Although blockchains may employ similar technology, different blockchains may have different user bases and different features.

39. Blockchains are secure because they are specifically designed to prevent tampering with digital asset transaction records. Start with security through transparency. Blockchains are visible to everyone, and therefore also auditable by everyone, but no one can unilaterally alter the chain. That is because blockchain technology requires consensus to validate each transaction. To explain, every transaction involving a digital asset must be authorized by special members of the network ("validators") who authenticate each block that is added to the chain. Moreover, blockchains are decentralized: transaction data is stored in multiple copies in many places simultaneously, as opposed to one centralized entity or location. That makes tampering extremely difficult.

40. Digital assets are digital representations of value recorded on a blockchain, including digital currencies and digital content, such as pictures, videos, music, and other art. Two of the most well-known types of digital assets are cryptocurrencies (digital currency) and non-fungible tokens, or NFTs (digital content such as art). Digital assets can be securely transferred, sold, or stored as collectibles.

41. People acquire digital assets for all kinds of reasons. Some people prefer digital currencies over traditional money because digital currencies provide more privacy and can be transferred more easily. And even if a user typically uses traditional money, digital currencies can help diversify a financial portfolio. Other people seek out digital art as memorabilia.

42. Anyone can create a digital asset. The process is similar to publishing any other piece of content.

43. Transactions of digital assets are recorded in the blocks of a blockchain, which function as transactional records. For example, when an owner engages in a digital asset transaction, that transaction is included in a new block. When someone transfers a digital asset to someone else, the transaction is also included in a block. When someone buys a digital asset with U.S. dollars, the transaction is included in a block. The blocks are linked together into a chain, block after block after block.

44. Cryptocurrencies are an important kind of digital asset. Anyone can purchase cryptocurrency with U.S. dollars so long as they have access to an internet connection. *See infra* ¶¶ 57-64 (describing centralized and decentralized exchanges). That cryptocurrency can then be used to purchase goods and services from household items to airline tickets as well as real estate.[4] Indeed, companies from Disney to Expedia to Walmart accept cryptocurrency.

45. Bitcoin was the first cryptocurrency. The maximum total supply of bitcoin is 21 million, and there are approximately 19 million bitcoin currently in circulation. Thus, no more than 2 million additional bitcoin will ever be minted. This scarcity contributes to bitcoin's value.

46. There are many other kinds of digital assets, including NFTs. NFTs are unique digital products whose authenticity and ownership can be verified by looking at the blockchain (which is

[4] *Where can I spend Bitcoin*, COINBASE HELP (last visited Dec. 27, 2024), help.coinbase.com/en/coinbase/getting-started/crypto-education/where-can-i-spend-bitcoin; Jenna Hall, *Can you buy a house with Bitcoin?*, BITCOIN MAGAZINE (May 26, 2022), bitcoinmagazine.com/business/can-you-buy-a-house-with-bitcoin.

publicly available), and which can typically point to a unique digital artwork or image. Purchasers of NFTs typically do not receive any physical asset; rather, the NFT itself is the collectible. For example, Nike launched a digital sneaker collection, Our Force 1, in 2023, which is available to members of its digital platform, .SWOOSH.[5] The digital sneakers are digital versions of Nike's most iconic Air Force 1s.[6]

47. NFTs, like cryptocurrency, use blockchain technology and can be purchased on specialized secondary marketplaces. Once purchased, NFTs may be stored in a user's digital wallet application or transferred.

B. Digital wallet applications

48. Once a user acquires digital assets, those assets are stored in a digital wallet application. Users can engage in digital asset transactions through that digital wallet application.

49. Digital wallet applications are software programs, typically browser extensions or mobile applications. Wallet applications use digital addresses called "public keys" and "private keys."

50. Public keys are typically a pair of numbers used to identify a user on the blockchain. These keys are similar to a username—they can be shared with others to allow them to send assets to the user's wallet application. Public keys are typically derived from private keys.

51. Private keys, in contrast, are more similar to PINs or passwords used in traditional banking—they are not to be shared. A user randomly selects a private key from an astronomically large range of numbers (approximately 1 through numbers 78 digits long), which makes it practically impossible that any two users will have the same private key. Often, wallet software will prompt users to use a mnemonic phrase, and then convert that phrase into a private key using an algorithm.

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[5] *.SWOOSH Drops First Virtual Collection, Accelerating Nike's Digital Transformation*, NIKE (April 17, 2023), about.nike.com/en/newsroom/releases/swoosh-drops-first-virtual-collection.

[6] *Id.*

52. The blockchain uses private keys to verify transactions and prove the user's ownership of the assets they are transacting with. Private keys can be used to determine a public key, but a public key can never expose a private key. Both the private and public keys are necessary to transact on the assets in a wallet application, providing an extra layer of security. As Treasury explained, only the private key holder has "the ability to transfer th[e] assets" in the wallet application. Final Rule p. 11 n.7.

53. If a user chooses to involve a centralized business, that business maintains custody over the user's wallet application and the assets in it, including the private key. That wallet application is therefore considered "custodial."

54. Decentralized finance uses non-custodial wallet applications, meaning the owner of the digital assets holds custody of the assets in their wallet application and controls those assets directly. With a non-custodial wallet application, the user typically stores their private keys locally on a device, such as a USB drive. This infrastructure enables the user to determine when and how to initiate the movement of their digital assets without using a third party. For many Americans, this technology provides an extra layer of security: a user can access the digital assets only with a particular personal digital device.

55. Many non-custodial wallet applications offer some additional functionality beyond allowing users to control their private keys. For example, non-custodial wallet applications may include an interface through which users can access other platforms or protocols, such as centralized trading platforms or decentralized software protocols that enable users to engage in transactions involving digital assets directly with other users. Non-custodial wallet applications might also help a user translate a desired transaction into the proper and necessary computer language with which they interact with a protocol. DeFi participants can also use software extensions compatible with the non-custodial wallet application to make users' interactions with a protocol easier. Neither the wallet applications

nor their compatible extensions collect information about users, set up user accounts, or track user transactions. Nor do they give those who create and publish wallet software and tools (who are colloquially known as "wallet software developers") access to the user's wallet application; nor does it give wallet software developers access to any user or transaction information.

56. To set up a non-custodial digital wallet, the user first selects the private key, and the software uses that private key to select a public key. No third party is needed to establish the wallet application or its keys. Neither the wallet software itself nor the software developers have control over the assets in the wallet application, and even the software developers are unable to access a user's private keys.

C. Centralized and decentralized exchanges and transactions

57. People who hold digital assets can trade them through centralized businesses or decentralized protocols. Centralized businesses are intermediaries—similar to a digital version of a marketplace or stock exchange. Decentralized protocols involve no intermediary, just two users transacting with the protocol.

58. Certain centralized parties create and operate platforms where users can send and receive digital assets. When a centralized entity holds user assets, customers typically reveal some personal information to the business when creating an account. These centralized businesses serve as intermediaries—similar to a digital version of a marketplace.

59. To enlist the exchange's assistance, a user typically creates an account with the exchange. When a user involves a centralized exchange, the centralized exchange typically will take custody of the user's assets in the account.

60. Centralized exchanges help alleviate the challenges users may experience trying to transact on a blockchain directly. Many new or more casual digital asset owners may not want to or have the time to learn how to conduct transactions on a blockchain themselves.

61. Decentralized exchanges, in contrast, are peer-to-peer systems that do not involve any intermediary. Users keep their assets and private keys to themselves, and they transact directly with other users through the self-executing code of the DeFi system.

62. Decentralized transactions work through "smart contracts." Despite the name, smart contracts are not like legal contracts. *Van Loon v. Department of Treasury*, 122 F.4th 549, 568-70 (5th Cir. 2024). Rather, smart contracts are self-executing software programs that automate the actions required to execute a blockchain transaction and permit users to safely and pseudonymously transact without any external authority, permission, or intermediary. The smart contract typically cannot be altered. *Id.* at 565. The code typically is also open-source and publicly available to review, use, and deploy by anyone in the world—once the code is published, nobody owns or controls it. *Id.* at 565-68. Indeed, that is why the Fifth Circuit in *Van Loon* held that smart contracts are not property: "they are not capable of being owned." *Id.* at 565.

63. On decentralized exchanges, the user interacts with the system's smart contracts, which can be accessed with the help of software such as their non-custodial wallet application, through wallet extensions, or through other software. The Final Rule appears to characterize this software as "trading front-end services." None of this software is organized to collect reportable data, as it is maintained by software developers, not traditional intermediaries. This software is often free.

64. The same users can transact on both centralized and decentralized exchanges—that is, digital assets can be traded and transferred on both types of exchanges, just as money or tangible assets can be traded through intermediaries or person to person.

D. Benefits of blockchains and digital assets

65. Blockchains and digital assets have produced a number of critical benefits, from economic value and jobs to more widely available, cost-effective, and efficient transactions for individuals who might otherwise lack adequate access to financial services.

66. Collectively, the digital asset market is valued at over $3 trillion. And Bitcoin alone is valued at approximately $1.9 trillion.[7] This industry has also generated hundreds of thousands of jobs for skilled workers, including programmers, engineers, and entrepreneurs.

67. Blockchains and digital assets allow users to transact more quickly and with minimal transaction costs. Blockchain networks can handle international transactions in mere minutes as opposed to the hours or even days needed with traditional finance.[8] Moreover, it typically costs around $1 to transact on a blockchain network, and international transaction fees range from 1% to 3%.[9] Banks, by contrast, charge on average 12% in transaction fees.[10] The availability of lower transaction fees has driven down the transaction costs of sending money globally from 9.7% in 2009 to 6.2% in 2023.[11]

[7] Pablo D. Azar et al., *The Financial Stability Implications of Digital Assets* at 8 (Sept. 2022), newyorkfed.org/medialibrary/media/research/staff_reports/sr1034.pdf?sc_lang=en; *Bitcoin Price (BTC)*, COINBASE (last visited Dec. 27, 2024), coinbase.com/price/bitcoin.

[8] Rana Kortam, *Cryptocurrencies can improve speed, cost and ease of access of payments*, OMFIF (Jan. 2, 2023), https://www.omfif.org/2023/01/cryptocurrencies-can-improve-speed-cost-and-ease-of-access-of-payments/.

[9] Liz Mills, *10 Facts That Will Change Your Mind About Remittances and Crypto*, CRYPTO COUNCIL FOR INNOVATION (June 8, 2024), https://cryptoforinnovation.org/10-facts-that-will-change-your-mind-about-remittances-and-crypto/#:~:text=The%20use%20of%20crypto%20to,the%20US%20were%20in%20crypto.

[10] *Id.*

[11] *Id.*

68. Blockchains and digital assets therefore open up access to financing for the nearly 20% of American adults who have limited or no access to traditional finance,[12] particularly among racial minorities.[13] Indeed, approximately 40% of Black Americans have traded in or used cryptocurrency.[14]

69. Blockchains and digital assets likewise enable borrowers to obtain loans at lower interest rates, which decreases their risk of falling victim to predatory and discriminatory lending practices.[15]

70. Americans with dependents living abroad also benefit from using cryptocurrencies to send financial support across borders without burdensome remittance fees.[16]

71. Digital assets are used to support philanthropic goals. Over $2 billion has been donated to nonprofit organizations using cryptocurrency as of January 2024.[17] Some organizations have

[12] *2021 FDIC National Survey of Unbanked and Underbanked Households*, FEDERAL DEPOSIT INSURANCE CORPORATION (last updated July 24, 2023), fdic.gov/household-survey.

[13] Andrew Perrin, *16% of Americans say they have ever invested in, traded or used cryptocurrency*, PEW RESEARCH CENTER (Nov. 11, 2021), https://www.pewresearch.org/short-reads/2021/11/11/16-of-americans-say-they-have-ever-invested-in-traded-or-used-cryptocurrency/; Cecilia Chapiro, *Working Toward Financial Inclusion with Blockchain*, STANFORD SOCIAL INNOVATION REVIEW (Nov. 24, 2021), ssir.org/articles/entry/working_toward_financial_inclusion_with_blockchain.

[14] Thomas Franck, *One in 5 adults has invested in, traded in, or used cryptocurrency, NBC News poll shows*, NBC NEWS (Mar. 31, 2022), https://www.nbcnews.com/tech/tech-news/one-five-adults-invested-traded-used-cryptocurrency-nbc-news-poll-show-rcna22380.

[15] Testimony of Sheila Warren, *Joint Hearing of the California Assembly Banking & Finance Committee and the Senate Banking & Financial Institutions Committee* at 11 (Feb. 22, 2023), https://cryptoforinnovation.org/wp-content/uploads/2023/03/Sheila-Warren-Testimony-CA.pdf.

[16] *Crypto could help save people in the US billions of dollars a year in remittance fees*, COINBASE (Apr. 3, 2023), coinbase.com/blog/crypto-could-help-save-billions-of-dollars-remittance-fees.

[17] *2024 Annual Report: Crypto Philanthropy Data, Trends & Predictions* 4, THE GIVING BLOCK, go.thegivingblock.com/hubfs/Annual%20Report/TGB%20Annual%20Report%20-%20PREVIEW.pdf

used digital assets to host charitable auctions, and in doing so, have raised over $120,000 for pediatric cancer research and over $500,000 for Parkinson's and ALS research, as two examples.[18]

72. Cryptocurrencies have also enabled individuals to more quickly donate to relief from international disasters and other crises. For example, approximately $6 million was donated to victims of earthquakes in Turkey and Syria in 2023[19], and the Ukrainian government has raised over $225 million in cryptocurrencies to support its Russian defense efforts[20].

II. Legal background

A. Congress's history of defining "broker"

73. Since 1917, Congress has authorized the IRS and its predecessor agency to request information returns from "brokers" on Form 1099.

74. The basic theory is that information returns from brokers will allow the IRS, if necessary, to doublecheck the returns from traders. For instance, say a trader used their Charles Schwab account to sell shares in a publicly traded company and made a profit. Charles Schwab, as the broker to that sale, is required to file a Form 1099 with the IRS reporting the trader's name, their identifying information, and the gains they made on the trade. When the trader files their taxes, the IRS can cross-check the trader's self-reported information against the broker's Form 1099.

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[18] *Id.* at 19.

[19] *Crypto Donations Provide Fast Relief for Earthquake Victims in Turkey and Syria*, CHAINALYSIS (Feb. 21, 2023), chainalysis.com/blog/cryptocurrency-donations-provide-fast-relief-for-turkey-syria-earthquake-victims/#:~text=Crypto%20the%20same$20potential,to%20transfer%20funds%20across%20borders.

[20] Anna Baydakova, *Ukraine Has Raised $225M in Crypto to Fight Russian Invasion, but Donations Have Stagnated Over the Last Year: Crystal*, COINDESK (July 27, 2023), coindesk.com/consensus-magazine/2023/07/27/Ukraine-has-raised-225m-in-crypto-to-fight-russian-invasion-but-donations-have-stagnated-over-the-last-year-crystal/.

75. For much of the history between 1917 and today, the IRS defined "broker" by reference to the Securities Exchange Act of 1934, which defined broker as "any person engaged in the business of effecting transactions in securities for the account of others." 15 U.S.C. § 78c(a)(4). Thus, a broker was someone, like Charles Schwab, E-Trade, or JPMorgan, with whom customers would place trades that the broker would carry out.

76. Until recently, brokers subject to IRS reporting requirements have always been limited to persons carrying out trades on behalf of customers on regulated and centralized marketplaces, or, beginning in 1983, acting for customers in a trade or business in either an agency role (a person directing payments on behalf of customers), or as a principal (a person providing liquidity to the market).

77. Thus, federal statute requires any person "doing business as a broker" to file a form with the IRS that reveals particular information about each customer who does business with the broker. 26 U.S.C. § 6045(a).

78. A broker who does not file the required form is subject to monetary penalties. 26 U.S.C. § 6721.

79. Before 2021, Section 6045 defined, in part, "broker" to include any person "who (for a consideration) regularly acts as a middleman with respect to property or services." 26 U.S.C. § 6045(c)(1)(C).

80. In 2021, Congress considered legislation to add an additional definition of broker to capture the work of some third-parties that work in the blockchain industry. During that process, Congress considered, but ultimately did not adopt, legislation that would have amended the definition of broker to include "any person who (for consideration) regularly provides any service responsible for effectuating transfers of digital assets, *including any decentralized exchange or peer-to-peer marketplace*." BA Comment Letter 5 (emphasis added). Congress did not move forward with that legislation.

81. Instead, that same Congress ultimately passed the Infrastructure Investment and Jobs Act (IIJA), which added a fourth definition of broker: "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person." 26 U.S.C. § 6045(c)(1)(D). The prior language, "including any decentralized exchange or peer-to-peer marketplace," was intentionally excluded, BA Comment Letter 5, but Congress reinforced that brokers are defined in relationship to "another person." This new provision was intended to address the "lack of clarity" on how the broker "rules apply to digital asset transactions" by providing that entities *already* "functioning as brokers" must report as such. Section 80603(a) was not intended "to impose new reporting requirements" nor to broaden the "definition of brokers."[21]

B. Treasury proposes regulations interpreting Section 6045.

82. Congress expressly delegated some authority to Treasury to implement rules around brokers—for instance, the Secretary "may prescribe" regulations governing what information a broker needs to report. *See* 26 U.S.C. § 6045(a). But Congress did not expressly delegate any authority to Treasury to define the term "broker" in the first place. Instead, as noted, Congress defined the term itself: A broker is "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person." *Id.* § 6045(c)(1)(D).

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[21] *Press Releases: On Senate Floor, Warner, Portman Conduct Colloquy Clarifying Cryptocurrency Provision in Infrastructure Investment & Jobs Act*, MARK R. WARNER: U.S. SENATOR FROM THE COMMONWEALTH OF VIRGINIA (Aug. 9, 2021), https://www.warner.senate.gov/public/index.cfm/2021/8/on-senate-floor-warner-portman-conduct-colloquy-clarifying-cryptocurrency-provision-in-infrastructure-investment-jobs-act.

Indeed, Treasury itself planned to consider crafting a regulation "based on principles broadly similar to those applicable under current law," which "impose[s] reporting obligations only on market participants engaged in business activities that provide them with access to information" necessary to report. Jonathan C. Davidson, *Letter from Department of the Treasury to United States Senate* 2-3 (Feb. 11, 2022), https://www.stradley.com/-/media/files/publications/2022/02/crypto-davidson-letter.pdf?la=en&rev=b70305b.

83. Nonetheless, in 2023, the Secretary of the Treasury issued a Notice of Proposed Rule-making purporting to interpret and implement the definition of "broker" in the newly amended § 6045.

84. The Proposed Rule offered an expansive definition of the term "broker" through a series of nested definitions that lead further and further away from Congress's definition of the term. As described below, the Proposed Rule purported to transform the definition of "broker" Congress adopted in the IIJA to include DeFi industry participants who create or offer technology that may be used to facilitate sales, for free, including by providing "access to digital asset trading platforms" (like websites or software developers) and "services to discover the most competitive buy and sell prices."

85. Before the Proposed Rule, Treasury defined broker as "any person … that, in the ordinary course of a trade or business during the calendar year, stands ready to *effect* sales to be made by others." 26 C.F.R. § 1.6045-1(a)(1) (emphasis added). To "effect" means "to put into operation." *Effect*, Merriam-Webster's Online Dictionary (last visited Dec. 27, 2024), https://www.merriam-webster.com/dictionary/effect. Under this definition, Treasury's own "view" was that "ancillary parties who cannot get access to information that is useful to the IRS"—such as "persons who are only selling storage devices used to hold private keys or persons who merely write software code"—"are not carrying out broker activities."[22]

86. Through successive definitions of "effect," "digital asset middleman," and "facilitative service," however, the Proposed Rule purported to transform the term "broker" to be completely unrecognizable when compared to Congress's definition in 26 U.S.C. § 6045(c)(1)(D). While Congress required brokers to effectuate transfers of digital assets, the Proposed Rule purported to define brokers as any parties capable of providing facilitative services to a digital asset transaction.

[22] *Letter from Department of the Treasury to United States Senate* 2.

87. The Proposed Rule began its trail away from Congress's definition by defining the word "effect" in the IRS's then-current definition of broker to include acting as "a digital asset middleman as defined in [the Proposed Rule] for a party in a sale of digital assets." 89 Fed. Reg. at 59,632 (Prop. Treas. Reg. § 1.6045-1(a)(10)(ii) & (iv)).

88. Then, the proposed regulations defined "digital asset middleman" as any "person who provides a facilitative service as described in [the proposed regulations] with respect to a sale of digital assets wherein the nature of the service arrangement is such that the person ordinarily would know or be in a position to know the identity of the party that makes the sale and the nature of the transaction potentially giving rise to gross proceeds from the sale." *Id.* at 59,633 (Prop. Treas. Reg. § 1.6045-1(a)(21)(i)). To "facilitate" means "to make (something) easier" or "to help bring (something) about." *Facilitate*, Merriam-Webster's, https://www.merriam-webster.com/dictionary/facilitate.

89. The Proposed Rule then explained that a person ordinarily knows, or is in a position to know, the identity of a party that makes the sale "if that person maintains sufficient control or influence over the facilitative services provided to have the ability to set or change the terms under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request." 89 Fed. Reg at 59,633 (Prop. Treas. Reg. § 1.6045-1(a)(21)(ii)(A)).

90. Then, the Proposed Rule explained that a person ordinarily knows, or is in a position to know, the nature of the transaction potentially giving rise to gross proceeds from a sale if "that person maintains sufficient control or influence over the facilitative services provided to have the ability to determine whether and the extent to which the transfer of digital assets involved in a transaction gives rise to gross proceeds, including by reference to the consideration that the person receives or pursuant to the operations of or modifications to an automatically executing contract or protocol to which the person provides access." *Id.* at 59,634 (Prop. Treas. Reg. § 1.6045-1(a)(21)(ii)(B)).

91. The Proposed Rule also provided examples of what, in Treasury's view, counts as a facilitative service. Facilitative services include providing access to digital asset trading services, providing market-making functions, and providing services to discover the most competitive buy and sell prices. *Id.* (Prop. Treas. Reg. § 1.6045-1(a)(21)(ii)(B)).

92. In addition to altering the definition of "broker," the Proposed Rule also adopted a new definition of the term "sales" that includes "[a]ny disposition of a digital asset in exchange for a different digital asset." *Id.* at 59,632 (Prop. Treas. Reg. § 1.6045-1(a)(9)(ii)(A)).

93. The proposed definition of "sales" differed from the Treasury's treatment of sales used for non-digital assets; Treasury defines sales in that context "only to the extent any of [the enumerated] dispositions are conducted for cash." *Id.* at 59,631 (Treas. Reg. § 1.6045-1(a)(9)).

C. Plaintiffs warn Treasury that its Proposed Rule is unlawful.

94. While Plaintiffs and their members fall outside Congress's statutory definition of "broker," because they do not effectuate transactions for consideration on behalf of third parties, they arguably fall inside Treasury's Proposed Rule. So Blockchain Association and DEF, along with thousands of others, each filed comment letters in response to the Proposed Rule, detailing how the Proposed Rule, if promulgated, would be unlawful and unconstitutional. *See* BA Comment Letter; DEF Comment Letter.

95. The comment letters detailed the significant harm that the Proposed Rule, if issued, would have on Plaintiffs and their members. Specifically, Blockchain Association told Treasury that decentralized participants would be "fundamentally unable to comply" with the Proposed Rule, because there is no centralized party who can edit software and instances of protocols to comply with the Proposed Rule's requirements. *See* BA Comment Letter 21-22. Thus, Blockchain Association told Treasury, treating DeFi entities as "brokers" would destroy the fundamental benefit of the DeFi industry—that it operates *without* intermediaries. Likewise, DEF told Treasury that "it is highly probable

that, in many situations, the Proposed Rule would impose insurmountable costs on market participants that deprive them of the ability to continue operating." DEF Comment Letter 16. And even if DeFi could comply, doing so would destroy its fundamental premise—allowing users to transact directly with each other. BA Comment Letter 22. Specifically, commenters told Treasury that wallet software developers and other developers of software used to transact on the blockchain do not collect information about users, hold assets, set up user accounts, or track user transactions. *See id.* Moreover, imposing such requirements on products that are not set up in any way to do so would be to impose a massive, and in many cases impossible, burden. *See id.*

96. Plaintiffs also submitted two letters under the Paperwork Reduction Act explaining that complying with the Proposed Rule each year would take approximately 4 billion hours and would cost $260 billion based on the IRS's own estimates. BA Paperwork Reduction Act Letter 3-4; Joint Second Paperwork Reduction Act Letter 4, 6.

97. The comment letters also argued that the Proposed Rule would exceed Treasury's statutory authority and be unconstitutional. *See* BA Comment Letter 26-33; DEF Comment Letter 4-12.

98. The Proposed Rule would exceed Treasury's statutory authority, the letters explained, because it would expand the definition of "broker" far beyond the text of the IIJA. While Congress limited the definition of broker to entities who are "responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person," 26 U.S.C. § 6045(c)(1)(D), the regulations explicitly define as brokers entities who do not actually effectuate transactions. BA Comment Letter 27-28; DEF Comment Letter 7-9; *see* Consensys Software Comment Letter 7-11. While the statute requires brokers to "effectuat[e] transfers of digital assets," the regulations define as a broker all entities who might provide "facilitative services" related to transactions, including apps and internet service providers who might help users transact. BA Comment Letter 27-28. And while the statute requires the entity to "regularly provid[e]" broker services, the regulations sweep in entities

who "stand[] ready" to provide facilitative services. *Id.* Thus, Blockchain Association explained, the regulations exceed statutory authority.

99. Blockchain Association and DEF also explained that the Proposed Rule would be unconstitutional. *See* BA Comment Letter 29-33; DEF Comment Letter 12-14.

100. The Proposed Rule, if promulgated, would violate the Fourth Amendment rights of two separate parties: the participants in digital asset transactions and the entities who would be labeled as brokers. As to participants, the Proposed Rule would result in the linking of wallet application addresses to personal identities, thus exposing each user's entire transaction history—how much every digital asset holder bought, sold, transferred, or donated, and to whom—to anyone around the world. BA Comment Letter 10. That large quantity of information would reveal information about the traders' most intimate activities. *See Riley v. California*, 573 U.S. 373, 395 (2014). As to those who could be labeled brokers, the Proposed Rule violates the Fourth Amendment rights of those parties by requiring them to collect and report to the government vast quantities of information. *See, e.g.*, *Patel v. City of Los Angeles*, 738 F.3d 1058, 1061 (9th Cir. 2013) (en banc), *aff'd*, 576 U.S. 409 (2015). Those entities have a possessory and ownership interest in the records of transacting parties, and the entities have no opportunity to challenge the reporting requirement before a neutral decisionmaker. That, too, violates the Fourth Amendment. BA Comment Letter 30-31; DEF Comment Letter 12-14.

101. The Proposed Rule, if promulgated, would violate the Fifth Amendment's Due Process Clause because the expansive and vague definitions of "broker" do not give fair notice to regulated parties. BA Comment Letter 31; DEF Comment Letter 14; *see* Consensys Software Comment Letter 11. Indeed, commenters warned that the regulations could sweep in validators or block builders—adding additional uncertainty. *See* BA Comment Letter 24-25; DEF Comment Letter 27.

102. Finally, Blockchain Association argued that the Proposed Rule violated the APA in three additional ways: (1) It was not supported by substantial evidence, because Treasury failed to

quantify the benefits (it did not quantify the tax gap from digital asset transactions) and failed to adequately consider the burdens on regulated parties, BA Comment Letter 32; (2) it treated traditional finance and decentralized finance differently without justification, including in adopting different definitions of "sales" for digital and non-digital assets without explanation, *id.* at 7, 32; and (3) the vagueness problems that render the Proposed Rule unconstitutional also rendered it arbitrary and capricious, *id.* at 32-33.

D. Plaintiffs warn Treasury that its Proposed Rule represents an existential threat to the DeFi community.

103. Both Blockchain Association and DEF's comment letters also detailed the harms that the Proposed Rule would cause, particularly to decentralized finance industry participants.

104. The letters described how decentralized finance participants are "fundamentally unable to comply" with the regulations. *See* BA Comment Letter 9; DEF Comment Letter 16. As described above, once the "smart contracts" that make up a DeFi protocol are written by developers and then deployed, they operate automatically, *see Van Loon*, 122 F.4th at 553; governance of the protocols is distributed to users, so altering the protocols to comply with the regulations is impossible. BA Comment Letter 10.

105. Blockchain Association also explained that requiring DeFi industry participants to collect user data would destroy the very purposes of DeFi: that users can transact without intermediaries and without revealing their identities. *Accord* Consensys Software Comment Letter 20-23. Because all transactions that occur under the DeFi model typically are public (but pseudonymous), creating an intermediary responsible for collecting and disclosing the identities of parties associated with those transactions would represent a fundamental shift in the DeFi model. *Id.* at 10. Thus, Blockchain Association explained, if the Proposed Rule was enacted, DeFi "would ultimately cease to exist." *Id.* at 22; *see also* DEF Comment Letter 16; Comment from Uniswap Foundation at 7-8, IRS Doc. No. IRS-2023-0041-0001, *available at* https://www.regulations.gov/comment/IRS-2023-0041-44266.

106. So too with non-custodial wallet software developers, Blockchain Association explained. *See* BA Comment Letter 19-21. Only the digital asset owners can access the assets inside their non-custodial wallet applications. But the Proposed Rule would seemingly require non-custodial wallet developers and providers to perform back-up withholding (that is, a tax withholding from a payment when the recipient fails to provide certain information), which would require the non-custodial wallet developers and providers to actually be able to access the assets inside the account. That would fundamentally change the nature of non-custodial wallet applications, making them custodial. *Id.*; *accord* Uniswap Comment Letter 7-8; Consensys Software Comment Letter 14.

107. Both Blockchain Association and DEF also submitted letters in response to the Department of the Treasury's release of a draft Form 1099-DA, which required public comment under the Paperwork Reduction Act. *See* BA Paperwork Reduction Act Letter; DEF Paperwork Reduction Act Letter (Exhibit 4).

108. In those letters, Plaintiffs explained that the Proposed Rule would impose existential harms on regulated parties.

109. Blockchain Association explained that the Proposed Rule would result in "at least four billion total annual burden hours" for regulated parties to prepare Forms 1099-DA. BA Paperwork Reduction Act Letter 3. That is because the IRS itself estimated that filling out each form takes approximately 30 minutes, and that as a result of the Proposed Rule, regulated parties will complete approximately eight billion forms. *See id.*; Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, TAX NOTES (Oct. 26, 2023), www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/23/7hhdp. The IRS also estimated the human cost of preparing the required form is around $63 an hour—so the total financial burden on regulated parties is on the order of $260 billion per year. Joint Second Paperwork Reduction Act Letter 6.

110. DEF calculated that the regulations would impose "an annualized cost on brokers of approximately $75.2 billion in the aggregate, or $14.9 million per broker, in each case disregarding startup costs." DEF Paperwork Reduction Act Letter 5. These costs would be "insurmountable" for many decentralized finance industry participants, who would be put out of business (or would move overseas) if the regulations were adopted. *Id.* at 6; *see* Joint Second Paperwork Reduction Act Letter 5.

E. Treasury promulgates a final rule as to centralized parties.

111. On June 28, 2024, Treasury announced that it had finalized a rule as to centralized exchanges. Treasury explained that it would "focus its enforcement resources on taxpayers who are more likely to have underreported their income from digital asset transactions and custodial brokers … who may not be meeting their reporting obligations." *Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions*, 89 Fed. Reg. 56,480, 56,492 (July 9, 2024). In contrast, Treasury declined to finalize rules "that apply to non-custodial industry participants"; as for those entities, Treasury would "continue to study th[e] area" and would issue a final rule after further consideration. *Id.*

112. As for centralized exchanges, the rule defines "broker" as including any person who "in the ordinary course of a trade or business during the calendar year, stands ready to effect sales to be made by others." *Id.* at 56,550 (§ 1.6045-1(a)(1)).

113. The rule then defines "effect." To effect a sale means to act as an "agent for a party in the sale wherein the nature of the agency is such that the agent ordinarily would know the gross proceeds from the sale," or a "principal that is a dealer in such sale," or a "digital asset middleman as defined in paragraph (a)(21) of this section." *Id.* at 56,552 (§ 1.6045-1(a)(10)).

114. The rule defines "digital asset middleman" as "any person who provides a facilitative service as described in paragraph (a)(21)(iii) of this section," *id.* at 56,553 (§ 1.6045-1(a)(21)), but the rule then reserves the definition of "facilitative service," *id.* (§ 1.6045-1(a)(21)(iii)).

115. The rule provided particular rules that apply to the sale of digital assets. For those sales, the rules define "broker" as including "*only* a U.S. digital asset broker as defined in paragraph (g)(4)(i)(A)(*1*) of this section," cross-referencing a later definition that provides that a "digital asset broker is a person that effects sales of digital assets on behalf of others and that is … a U.S. payor or U.S. middleman as defined in § 1.6049-5(c)(5)(i)(B) or (F)." *Id.* at 56,550, 56,574 (emphasis added).

116. For sales of digital assets, the rule defines providing a facilitative service as including five activities, including any "payment service performed by a processor of digital asset payments described in paragraph (a)(22) of this section, provided the processor of digital asset payments has actual knowledge or ordinarily would know the nature of the transaction and the gross proceeds therefrom." *Id.* at 56,553 (§ 1.6045-1(a)(21)(iii)(B)(4)). Paragraph (a)(22) defines a "processor of digital asset payments" as a person "who in the ordinary course of a trade or business stands ready to effect sales of digital assets … by regularly facilitating payments from one party to a second party by receiving digital assets from the first party and paying those digital assets, cash, or different digital assets to the second party." *Id.* (§ 1.6045-1(a)(22)).

117. "In the case of a sale of a digital asset," the rule defines broker as including only "a person that effects sales of digital assets on behalf of others and that is … [a] U.S. payor or U.S. middleman as defined in § 1.6049-5(c)(5)(i)(A)." *Id.* at 56,574 (§ 1.6045-1(g)(4)(i)(A)(1)). The cross-referenced definition of middleman is any person "who makes payment of interest for, or collects interest on behalf of, another person, or otherwise acts in a capacity as intermediary between a payor and a payee." 26 C.F.R. § 1.6049-4(f)(4).

F. Treasury promulgates its Final Rule for decentralized finance industry participants.

118. On December 27, 2024, Treasury announced its rule for DeFi participants. The Final Rule replaces the Proposed Rule's definition of "facilitative service" with the terms "effectuating

service" and "trading front-end service." Final Rule ¶ (a)(21)(i), (iii). Despite the new term, the Final Rule poses the same statutory and constitutional problems as the Proposed Rule.

119. The Final Rule takes the same nesting-definitions approach as the Proposed Rule. A broker is someone who acts as a "digital asset middleman," which the Final Rule defines as any person "who is responsible for providing an effectuating service." *Id.* ¶ (a)(21). An "effectuating service," in turn, is defined in part as any service with respect to the sale of digital assets that is a "trading front-end service," and the "nature of the service arrangement is such that the person providing the service ordinarily would know or be in a position to know … the nature of the transaction." *Id.* ¶ (a)(21)(i)(A).

120. The Final Rule then defines a "trading front-end service" as a service that "receives a person's order to sell and processes that order for execution by providing user interface services" that are designed to "[e]nable" the user "to input order details with respect to a transaction to be carried out or settled" on a distributed ledger, and "transmits order details so that the transaction can be carried out or settled" on the distributed ledger. *Id.* ¶ (a)(21)(iii)(A).

121. The Final Rule covers providers of trading front-end services who "ordinarily would know or be in a position to know" the nature of the transaction that results in proceeds from the sale of digital assets. *Id.* ¶ (a)(21)(i)(A). The Final Rule defines "position to know" as maintaining "control or sufficient influence over the trading front-end services to have the ability to determine" whether the transaction resulted in gross proceeds. *Id.* ¶ (a)(21)(i)(B)(ii). The Final Rule measures maintaining control or influence as the "ability to collect the fees charged for those services… whether or not the person actually collects fees in this manner." *Id.*

122. As with the Proposed Rule, the Final Rule uses all of the above nested definitions to significantly expand Congress's statutory definition of "broker" well beyond what Congress intended. Congress's constrained definition reaches only entities that "effectuate[]" transactions "for consideration." Conversely, the Final Rule's definition sweeps in both software providers that do not effectuate

transactions as well as software providers that do not collect consideration. For example, the definition of "trading front-end services" sweeps in providers of software tools, including graphical user interfaces, that do not themselves effectuate transfers but instead merely enable users to engage with smart contracts to make transfers of assets in their custody without using third-party intermediaries. Users effectuate the transfers using their private keys, the front-end interface software does not. Moreover, the Final Rule's definition of "position to know" sweeps in front-end software that is free to use, disregarding Congress's requirement that brokers provide their services "for consideration." 26 U.S.C. § 6045(c)(1)(D).

123. By sweeping under the definition of "broker" any software provider that merely enables users to effectuate their own transactions using other DeFi software, the Final Rule broadens the definition to include service providers (potentially even Internet Service Providers) that "indirectly" effectuate transactions—precisely what Treasury and the IRS agree "is too broad" under the statutory definition of broker. *See* Final Rule pp. 20, 43.

124. Moreover, non-custodial software providers do not act as agents of users who transact in digital assets. They also do not act as principals in those transactions. And they do not take custody or have access to a user's private keys or digital assets. At most, they may make it easier for users to effectuate their own DeFi transactions. But that does not mean the software providers "effectuate" those transactions.

125. In short, just like the Proposed Rule, the Final Rule rests on nesting definitions to apply to parties who are not those who regularly "effectuat[es] transfers of digital assets" "for consideration" "on behalf of another person" (what *Congress* said, 26 U.S.C. § 6045(c)(1)(D)). Put differently, the Final Rule confuses a tool that digital asset holders can use for free to engage with smart contracts themselves, on the one hand, with brokers who regularly and actually carry out transactions for consideration, on the other. Those are not the same thing. Treasury's attempt to redefine "broker" exceeds

Treasury's authority, because the Final Rule's definition goes beyond the statute's, and Congress did not delegate to Treasury any authority to redefine the term, meaning Treasury's definition is entitled to no deference. *See Loper Bright Enterprises*, 144 S. Ct. 2244.

G. Treasury's Final Rule fails to consider substantive comments raised during notice-and-comment.

126. In its haste to enact a Final Rule, Treasury failed to adequately consider several substantive comments raised by commenters.

127. For example, Treasury failed to consider that the Final Rule will require some new "brokers" to fundamentally change their business models. *See* DEF Comment Letter 18-21 (explaining front ends).

128. Likewise, Treasury failed to consider Plaintiffs' concern that the Proposed Rule did not clarify when a sale by a non-U.S. "broker" would be "treated as effected from *within* the United States." DEF Comment Letter 34-35; *see* BA Comment Letter 22. DEF recommended that Treasury "clearly delineate the criteria necessary to avoid application of the Proposed Regulations to entities outside the United States," DEF Comment Letter 35, but Treasury failed to respond.

129. Treasury also failed to conduct an adequate cost-benefit analysis in the Final Rule. Instead, Treasury merely acknowledged that it "understand[s] that these final regulations will impose costs on DeFi participants," Final Rule p. 98—an understatement—but failed to explain how, in its view, these costs are outweighed by benefits.

CAUSES OF ACTION

COUNT I

Violation of Administrative Procedure Act, 5 U.S.C. § 706: Exceeds Statutory Authority

130. Plaintiffs repeat and incorporate by reference all of the allegations above.

131. The APA provides that "[t]he reviewing court shall … hold unlawful and set aside agency action, findings, and conclusions found to be … in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 5 U.S.C. § 706(2)(C).

132. The IIJA defines "broker" as "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person." 26 U.S.C. § 6045(c)(1)(D).

133. The Final Rule exceeds Treasury's statutory authority to interpret the term "broker" through a series of definitions that, taken together, define as "brokers" persons and entities that are not covered under Congress's definition of that term. *See Loper Bright Enterprises*, 141 S. Ct. at 2247.

134. Treasury's interpretation of "broker," and its definitions, including "effect," "digital asset middleman," "trading front-end service," and "position to know," conflict with the IIJA and exceed Treasury's statutory authority.

135. For these reasons, Treasury's adoption of the Final Rule was not in accordance with law. The court should therefore "hold unlawful and set aside" the Final Rule. 5 U.S.C. § 706.

COUNT II

Violation of Administrative Procedure Act, 5 U.S.C. § 706: Arbitrary and Capricious, Lack of Substantial Evidence, Lack of Reasoned Decisionmaking

136. Plaintiffs repeat and incorporate by reference all of the above allegations.

137. The APA requires a reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be … unsupported by substantial evidence." 5 U.S.C. § 706(2)(E).

138. An agency fails substantial evidence review if it ignores evidence that undercuts its judgment or discounts evidence without adequate explanation. *Morall v. Drug Enforcement Administration*, 412 F.3d 165, 179-80 (D.C. Cir. 2005).

139. The APA also requires federal agencies to "articulate a satisfactory explanation for [their] action[s]" and establish a "rational connection between the facts found and the choice made."

Motor Vehicle Manufacturers Association of U.S. v. State Farm Mutual Automobile Insurance, 463 U.S. 29, 43 (1983).

140. In addition, the reviewing court must decide "whether the agency addressed any significant points … raised by the public comments." *Mexican Gulf Fishing Co. v. United States Department of Commerce*, 60 F.4th 956, 971 (5th Cir. 2023).

141. The Final Rule violates the APA for all these reasons.

142. The Final Rule is unsupported by substantial evidence as to both the benefits of the regulation and the burdens on the parties. Treasury did not quantify the "tax gap" that result from digital asset transactions, and it did not accurately quantify the substantial burdens that the Final Rule imposes on regulated parties. Indeed, Treasury estimated the burden to be approximately 2 million hours, but a more accurate estimation is at least four billion hours. BA Paperwork Reduction Act Letter 2-3; Joint Second Paperwork Reduction Act Letter 4. And Treasury estimated the financial burden to be approximately $136 million, but a more accurate estimate is $260 billion. Joint Second Paperwork Reduction Act Letter 6. What's more, those estimates do not include the time and money necessary for DeFi industry participants to collect and store users' personal information.

143. Relatedly, Treasury failed to meaningfully respond to the concerns Plaintiffs raised in their comment letters, and adequately weigh the costs and benefits. Indeed, Treasury failed to consider that the Final Rule will require some front-end services to fundamentally change their business models.

144. As a result, the Final Rule is also arbitrary or capricious because it treats DeFi and traditional finance the same, without recognizing the significant and meaningful differences between the two.

145. The Final Rule is further arbitrary or capricious because it is so vague that it is not reasonable or reasonably explained; it offers no meaningful guidance to regulated parties about whether they are even subject to the reporting requirements.

146. For these reasons, Treasury's adoption of the Final Rule was not in accordance with law. The Court should therefore "hold unlawful and set aside" the Final Rule. 5 U.S.C. § 706.

COUNT III

Violation of Administrative Procedure Act, 5 U.S.C. § 706:
Contrary to Constitutional Right – Fourth Amendment

147. Plaintiffs repeat and incorporate by reference all of the above allegations.

148. The APA requires a reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be … contrary to constitutional right, power, privilege, or immunity." 5 U.S.C. § 706(2)(B).

149. The Final Rule violates the Fourth Amendment for two separate reasons. *First*, it violates the rights of participants to a transaction using decentralized finance, because those participants have a reasonable expectation of privacy in their identifying information, which the Final Rule requires them to disclose to a third party, and ultimately to the government. Connecting personal identities to transactions on the blockchain (which are pseudonymous) would reveal vast troves of personal information to the world, including whom people bought digital assets from and sold them to. *Second*, the Final Rule violates the Fourth Amendment rights of third parties who are required to collect and report vast quantities of information about their users to the government. *See, e.g.*, *Patel*, 738 F.3d at 1061.

150. For these reasons, Treasury's adoption of the Final Rule was not in accordance with law. The court should therefore "hold unlawful and set aside" the Final Rule. 5 U.S.C. § 706.

COUNT IV

Violation of Administrative Procedure Act, 5 U.S.C. § 706:
Contrary to Constitutional Right – Fifth Amendment

151. Plaintiffs repeat and incorporate by reference all of the above allegations.

152. The APA requires a reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be … contrary to constitutional right, power, privilege, or immunity." 5 U.S.C. § 706(2)(B).

153. The Final Rule is unconstitutional in violation of the Fifth Amendment's Due Process Clause, which requires Treasury to "give fair notice of conduct that is forbidden" and establish adequate standards to prevent "seriously discriminatory enforcement." *Federal Communications Commission v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012).

154. The Final Rule fails to give regulated parties fair notice because it requires regulated parties to guess as to whether they must comply with the Final Rule or not. For instance, the Final Rule applies to a party if they "ordinarily would know or be in a position to know the nature of the transaction potentially giving rise to gross proceeds from a sale of digital assets," Final Rule ¶ (a)(21)(B)(ii), but that does not offer clarity to potentially regulated parties. The Final Rule is vague, in violation of the Fifth Amendment.

155. The APA requires a reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be … arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

156. For these reasons, Treasury's adoption of the Final Rule was not in accordance with law. The court should therefore "hold unlawful and set aside" the Final Rule. *Id.*§ 706.

PRAYER FOR RELIEF

157. Plaintiffs respectfully request that this Court enter judgment in their favor against Defendants and provide the following relief:

a. A declaratory judgment that the Final Rule is arbitrary, capricious, or otherwise contrary to law within the meaning of the APA, *see id.* § 706(2)(A);

b. An order vacating and setting aside the Final Rule in its entirety pursuant to the APA, *see id.* § 706(2);

c. An order enjoining Treasury from enforcing the Final Rule against Plaintiffs' members and other blockchain industry participants;

d. An order awarding Plaintiffs their reasonable costs, including attorneys' fees, incurred in bringing this action; and

e. Any other and further relief that the Court deems just and equitable.

DATED: December 27, 2024

Respectfully Submitted,

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Attorneys for Plaintiffs Blockchain Association, Texas Blockchain Council, and DeFi Education Fund
**Pro hac vice motion forthcoming*

Exhibit 1

BLOCKCHAIN ASSOCIATION

November 13, 2023

Via Electronic Upload

CC:PA:LPD:PR (REG–122793–19) Room 5203
Internal Revenue Service
P.O. Box 7604, Ben Franklin Station
Washington, DC 20044

Re: IRS Proposed Rulemaking REG-122793-19; Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions ("Proposed Regulations")

Ladies and Gentlemen:

The Blockchain Association respectfully submits this letter providing comments regarding the Proposed Regulations and the rules therein concerning reporting for digital asset transactions.

The Blockchain Association is the leading nonprofit membership organization dedicated to promoting a pro-innovation policy environment for the digital asset economy. The Blockchain Association endeavors to achieve regulatory clarity and to educate policymakers, regulators, courts, and the public about how blockchain technology can pave the way for a more secure, competitive, and consumer-friendly digital marketplace. The Blockchain Association represents over 100 member companies reflecting the wide range of the dynamic blockchain industry, including software developers, infrastructure providers, exchanges, custodians, investors, and others supporting the public blockchain ecosystem.

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I. INTRODUCTION

The Infrastructure Investment and Jobs Act (the "IIJA"), Pub. L. No. 117-58, was signed into law by President Biden on November 15, 2021. The IIJA set forth the initial reporting requirements for digital assets under Section 6045,[1] but left many details to be determined by the Secretary of the Treasury.

Nearly two years after the IIJA was signed into law, the Secretary of the Treasury issued the Proposed Regulations, which purport to interpret and implement the reporting requirements of Section 6045. *See* 88 Fed. Reg. 59,573 (Aug. 29, 2023). A 60-day period was provided for public comments.

On September 15, 2023, the Blockchain Association submitted a letter in response to the Proposed Regulations, respectfully requesting that the Secretary of the Treasury extend the comment period by at least an additional 60 days for the Proposed Regulations. As noted therein and despite the mere two-week extension, the 74-day comment period is insufficient to address the myriad issues and questions raised by the Proposed Regulations, which are too lengthy, too complex, and too consequential to be rushed. As a result, the Blockchain Association's ability to respond fully to the Proposed Regulations has been hindered by the short amount of time afforded to read, digest, and analyze the Proposed Regulations, understand fully their potential implications, and craft useful comments.

We note that the U.S. Department of the Treasury ("Treasury") requested specific comments from the public about no fewer than 50 discrete topics related to the Proposed Regulations. While we applaud the willingness of Treasury to request comments from the public, and have attempted to answer some of those questions in this comment letter, the sheer number of issues about which Treasury is still uncertain demonstrates how the Proposed Regulations are necessarily riddled with ambiguities and conceptual holes. This provides further reason why 74 days is not a sufficient timeframe to provide adequate comments.

Nonetheless, this comment letter highlights several concerns with the Proposed Regulations. Our comments are limited to the reporting regime laid out in the Proposed Regulations. While certain aspects of the taxation of digital assets could be debated, we do not dispute the basic principle that gains on sales of digital assets should be taxed.

The Proposed Regulations, however, reflect fundamental misunderstandings about the nature of digital assets and decentralized technology. Consistent with the Blockchain Association's goal of educating regulators and policymakers, this comment letter attempts to highlight areas of apparent misunderstanding in order to promote more effective and efficient final regulations.

For entities that are "centralized,"[2] and for whom reporting under the Proposed Regulations may be possible, the Proposed Regulations are in some respects unrealistic or overly burdensome,

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[1] Unless otherwise noted, all section references are to the Internal Revenue Code of 1986, as amended (the "Code") or the Treasury Regulations thereunder.

[2] For purposes of this comment letter, we intend "centralized" entities to mean those who create and operate trading platforms through which users can send and receive digital assets. Funds housed with centralized platforms are maintained in the platform's custody, and customers typically reveal some

particularly with regard to the short timelines given to implement required changes. For decentralized projects, compliance with the Proposed Regulations will be practically impossible for at least two reasons. First, the Proposed Regulations are overbroad, sweeping in parties whose only means of compliance would be to abandon the decentralized technology that makes them unique. This construction will drive all U.S.-based decentralized projects abroad or out of existence, full stop. Second, the Proposed Regulations are unclear as to whether certain participants have a reporting requirement at all.

II. THE PROPOSED REGULATIONS GO BEYOND THE STATUTE IN SEVERAL AREAS.

In general, Section 6045 and the corresponding regulations require a person doing business as a broker to file information returns and furnish payee statements for each customer for whom the broker has transacted business.[3] The IIJA extended Section 6045 to apply to brokers of digital assets.

The Proposed Regulations expand upon the definitions of "digital asset" and "broker" as set forth in the IIJA.[4]

This section provides an overview of the changes undertaken by the Proposed Regulations, while subsequent sections will describe the ruinous effects of those changes on the members of the Blockchain Association and other digital asset market participants.

A. The Proposed Regulations broaden the definition of digital asset.

The IIJA expanded the types of assets subject to information reporting under Section 6045 to include digital assets, and amended Section 6045(g)(3) to define a digital asset:

> Except as otherwise provided by the Secretary, the term "digital asset" means any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology as specified by the Secretary.

Prop. Treas. Reg. § 1.6045-1(a)(19)(i) further expands on the definition of digital asset:

> For purposes of this section, the term digital asset means any digital representation of value that is recorded on a cryptographically secured distributed ledger (or any similar technology), without regard to whether each individual transaction involving that digital asset is actually recorded on that ledger, and that is not cash.

As discussed below, this broad definition of digital asset means that the Proposed Regulations capture not only assets that are held for investment by customers, but also property such as non-fungible tokens ("NFTs"), digital assets whose value is pegged to an underlying commodity, currency, or security (so-called "stablecoins"), tokenized real estate, and tokenized commodities.

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personal information to the platform when creating an account. Some of these parties operate in a similar manner to traditional financial intermediaries.

[3] A broker is generally not required to report sales by foreign persons if the broker can rely on documentation showing that the seller is indeed a foreign person (e.g., an IRS Form W-8).

[4] *See infra* Section VI.B. for a discussion of the surprisingly wide range of participants who may be captured under the expansions of these definitions in the Proposed Regulations.

Because these types of property are used for other functions besides being held for investment, they often are not analogous, either in investment intent or in function, to the types of property previously subject to the broker reporting rules.

B. The Proposed Regulations broaden the definition of broker.

Prior to the IIJA, Section 6045(c)(1) defined "broker" to include a dealer, a barter exchange, and any other person who (for a consideration) regularly acts as a middleman with respect to property or services. The IIJA amended Section 6045(c)(1) to provide that the term broker includes: "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person." Congress expressly described this amendment as a mere "clarification" of the definition of "broker." IIJA, Sec. 80603(a). Accordingly, Congress's revised definition of "broker" is a clarification of what it means to "act[] as a middleman" with respect to digital assets.

Current Treas. Reg. § 1.6045-1(a)(1) provides that the term broker "means any person (other than a person who is required to report a transaction under section 6043), U.S. or foreign, that, in the ordinary course of a trade or business during the calendar year, stands ready to effect sales to be made by others."

We note that while the IIJA was under consideration, a broader formulation of "broker," which would appear at least somewhat closer to what the Proposed Regulations carry out, was proposed in draft form—"any person who (for consideration) regularly provides any service responsible for effectuating transfers of digital assets, *including any decentralized exchange or peer-to-peer marketplace*" (emphasis added).[5] Congress ultimately rejected that language—making it all the more troubling for the Proposed Regulations to now attempt to broadly pull in decentralized participants.

Although the wording used in the definition of "broker" in Prop. Treas. Reg. § 1.6045-1(a)(1) remains the same as in the current regulations, the Proposed Regulations create cascading, expansive definitions of the terms used in the definition of "broker" in a way that dramatically departs from past practice, the concept of a middleman, and the rules applicable to traditional assets. In particular, the Proposed Regulations significantly expand the term "effect" and thereby revise the definition of "broker" beyond the statutory definition. As discussed below, through these expansive definitions, the Proposed Regulations capture parties beyond those contemplated by Congress, such as decentralized finance (DeFi) developers, providers of websites that merely educate users about ways to use DeFi protocols, and even providers of tools that are not specific to digital assets, such as internet service providers.[6]

Specifically, the Proposed Regulations modify the definition of "effect" in Treas. Reg. § 1.6045-1(a)(10) to include acting as "a digital asset middleman as defined in paragraph (a)(21) of this section for a party in a sale of digital assets." Prop. Treas. Reg. § 1.6045-1(a)(10)(ii) & (iv). The Proposed Regulations go on to define "digital asset middleman" as:

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[5] See attached as Exhibit A a copy of July 28, 2021, draft legislation received and reviewed by the Blockchain Association.

[6] *See infra* Section VI.B. for a discussion of the inappropriate way that the Proposed Regulations may sweep in providers, including access service and tool providers.

> any person who provides a facilitative service as described in paragraph (a)(21)(iii) of this section with respect to a sale of digital assets wherein the nature of the service arrangement is such that the person ordinarily would know or be in a position to know the identity of the party that makes the sale and the nature of the transaction potentially giving rise to gross proceeds from the sale.

Prop. Treas. Reg. § 1.6045-1(a)(21)(i).

The Proposed Regulations broadly define a "facilitative service" in Prop. Treas. Reg. § 1.6045-1(a)(21)(iii) to "include" "the provision of a service that directly *or indirectly* effectuates a sale of digital assets" (emphasis added). The Proposed Regulations go on to provide the following non-exclusive examples of facilitative services:

- providing a party in the sale with access to an automatically executing contract or protocol,
- providing access to digital asset trading platforms,
- providing an automated market maker system,
- providing order matching services,
- providing market making functions,
- providing services to discover the most competitive buy and sell prices, or
- providing escrow or escrow-like services to ensure both parties to an exchange act in accordance with their obligations.

The Proposed Regulations then exclude two specific functions from the definition of "facilitative service": "validating distributed ledger transactions . . . without providing other functions or services if provided by a person solely engaged in the business of providing such validating services"; and "the selling of hardware or the licensing of software for which the sole function is to permit persons to control private keys which are used for accessing digital assets on a distributed ledger if such functions are conducted by a person solely engaged in the business of selling such hardware or licensing such software."

The Proposed Regulations provide that a person ordinarily would know or be in a position to know the identity of the party that makes the sale:

> if that person maintains sufficient control or influence over the facilitative services provided to have the ability to set or change the terms under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request.

Prop. Treas. Reg. § 1.6045-1(a)(21)(ii)(A). Under the Proposed Regulations, a person with the ability to change the fees charged for facilitative services automatically meets this standard.

Similarly, the Proposed Regulations provide that a person ordinarily would know or be in a position to know the nature of the transaction potentially giving rise to gross proceeds from a sale:

> if that person maintains sufficient control or influence over the facilitative services provided to have the ability to determine whether and the extent to which the transfer of digital assets involved in a transaction gives rise to gross proceeds, including by reference to the consideration that the person receives or pursuant to the operations of or modifications to an automatically executing contract or protocol to which the person provides access.

Prop. Treas. Reg. § 1.6045-1(a)(21)(ii)(B). Again, the Proposed Regulations provide that a person with the ability to change the fees charged for facilitative services automatically meets this standard.

Aside from the non-sequitur that the ability to change the fees charged for a service constitutes "sufficient control or influence" to cause other types of information to be obtained from users, the Proposed Regulations do not provide guidance as to what else would (or would not) constitute "sufficient control or influence."

Through these cascading definitions, the Proposed Regulations potentially include certain parties, groups, or systems as "brokers" subject to the reporting regime even though they do not—and in many instances, cannot—in fact act as brokers, intermediaries, or middlemen. Consequently, and as discussed further below, a wide swath of participants would be required to comply with the information reporting requirements of the Proposed Regulations despite being ill-suited or unable to do so. This outcome directly contravenes statements made by Treasury that "ancillary parties who cannot get access to information that is useful to the IRS are not intended to be captured by the reporting requirements for brokers."[7]

Moreover, despite the fact that the statutory definition of a "broker" contains the requirement that the person provide a service for consideration on behalf of another person,[8] the Proposed Regulations omit any "for consideration" requirement.

Instead, the Proposed Regulations define a "broker" as a person who effects sales made by others "in the ordinary course of a trade or business." Treasury takes the position in the Preamble to the Proposed Regulations that persons engaged in a trade or business are necessarily performing their services for consideration. However, the regulation that Treasury cites for this conclusion states the exact opposite. *See* Treas. Reg. § 1.6041-1(b)(1) ("all persons engaged in a trade or business" "includes not only those so engaged for gain or profit, but also organizations the activities of which are not for the purpose of gain or profit"). Thus, the Proposed Regulations by their own terms do not contain a "for consideration" requirement and contradict the statutory language, capturing even more parties outside the scope of the text of the IIJA.

C. The Proposed Regulations broaden the definition of sales.

Treas. Reg. § 1.6045-1(a)(9) provides the definition of "sale" for the reporting obligations under Section 6045. The Proposed Regulations add a new subpart to the definition of "sales" and provides that the term sale also includes:

1. Any disposition of a digital asset in exchange for cash or stored-value cards;

2. Any disposition of a digital asset in exchange for a different digital asset; and

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[7] Letter from Jonathan C. Davidson, Department of the Treasury, Assistant Secretary for Legislative Affairs, to various Senators (February 11, 2022), available at https://www.stradley.com/insights/publications/2022/02/-/media/e295168ea3714c528af55eb44cad7e30.ashx.

[8] As amended by the IIJA, Section 6045(c)(1) provides that the term "broker" includes "any person who (*for consideration*) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person" (emphasis added).

> 3. The delivery of a digital asset pursuant to the settlement of a forward contract, option, regulated futures contract, any similar instrument, or any other executory contract which would be treated as a sale of a digital asset under this paragraph (a)(9)(ii) if the contract had not been executory.

Prop. Treas. Reg. § 1.6045-1(a)(9)(ii)(A).

This definition of sale differs from that used for non-digital assets: Treas. Reg. § 1.6045-1(a)(9) provides that for non-digital assets, the term sale means any disposition of securities, commodities, options, regulated futures contracts, securities futures contracts, or forward contracts, *but only to the extent any of these dispositions are conducted for cash*. Thus, in-kind exchanges are expressly carved out from the reporting requirements under Section 6045. The Proposed Regulations include no such exclusion for in-kind exchanges; instead, any disposition of a digital asset in exchange for a different digital asset is a reportable event. To avoid confusion, and to reflect the similarities between digital and non-digital assets, there should be parity in the tax treatment between digital and non-digital assets. This lack of a carve out for in-kind exchanges of digital assets in the Proposed Regulations is unwarranted.

III. A RANGE OF MARKET PARTICIPANTS ARE AFFECTED BY THE PROPOSED REGULATIONS.

As described above, these rules would negatively affect the digital asset landscape if adopted in their current form. Many projects simply will not survive their implementation—Treasury's own estimate is that up to 98 percent of impacted parties could be small businesses, who may not have the resources necessary to achieve compliance.[9] To understand this result, it is helpful to understand some of the various participants that will be affected by the Proposed Regulations.

To that end, we describe below certain participants who will be affected by the rules as currently proposed.

A. Centralized parties will have difficulty complying.

Certain centralized parties create and operate trading platforms through which users can send and receive digital assets. Funds housed with the platforms are maintained in the platform's custody, and customers typically reveal some personal information to the platform when creating an account. Some of these parties operate in a similar manner to traditional middlemen or intermediaries. As such, these centralized platforms arguably fall within the Code and the Proposed Regulations' definition of "broker."

Although we understand the desire to impose reporting obligations on operators of centralized platforms as a general matter, implementing the Proposed Regulations as currently drafted within the contemplated time period will be extremely challenging or impossible for many participants. These issues are discussed in Section IV below.

B. Wallet software developers will have difficulty complying.

Wallets provide the means to store and access digital assets. Wallets use digital addresses called "public keys" (essentially a public address to which digital assets can be directed) and private

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[9] *See* 88 Fed. Reg. 59,621 (Aug. 29, 2023).

passcodes called "private keys" (which are kept private and are used to verify transactions and prove ownership of the assets inside the wallet).

Certain wallets are "custodial," meaning that a third party holds the private keys and thus controls the assets inside the wallet on behalf of their owner. Non-custodial wallets, on the other hand, ensure that only the owner of the digital assets in the wallet holds the private keys. Non-custodial wallets therefore provide a level of security that custodial wallets cannot.

The primary function of most non-custodial wallet software is to provide secure infrastructure to allow users to safely manage their own private keys. This infrastructure enables the user to determine when and how to initiate the movement of their digital assets without the use of an intermediary. Many non-custodial wallets offer some additional functionality beyond allowing users to control their private keys. For example, non-custodial wallets may provide an interface through which users can access other platforms or protocols, such as centralized trading platforms or decentralized software protocols that enable users to engage in disintermediated transactions involving digital assets ("DeFi" or "DEX" systems or protocols).[10] Providing such additional functionality does not give those who create and publish wallet software and tools ("wallet software developers")[11] access to the customer's wallet nor does it give wallet software developers access to any customer or transaction information. The Proposed Regulations would have the effect of creating new cybercriminal attack vectors by requiring non-custodial wallet software developers to alter their software and its primary functionality to collect and store personal financial and identifying information about their users. As another example, non-custodial wallets may help a user translate a desired transaction into the proper and necessary computer language to interact with a protocol. Again, providing such a service does not give wallet software developers access to the customer's wallet nor to any customer or transaction information (beyond what is already publicly available on the blockchain).

C. DeFi participants are fundamentally unable to comply.

Participants in DeFi technology ("DeFi participants") are very different from centralized actors. DeFi protocols, by their nature, are designed to provide a self-executing, self-enforcing protocol through which users can transact directly with one another or with the smart contract without the involvement of any centralized intermediary or middleman. DeFi developers draft the source

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[10] A digital asset "protocol" is a basic set of rules that allow data to be shared between computers. They establish the structure of the blockchain — i.e., the distributed database that allows digital assets to be securely exchanged on the internet. *See* Coinbase, *What is a protocol?*, available at https://www.coinbase.com/learn/crypto-basics/what-is-a-protocol. Such protocols are open-source and entirely transparent, allowing anyone to examine and verify their underlying code. One typical characteristic of digital asset protocols is that they enable the use of "smart contracts," which are "self-executing, self-enforcing programs" that enable the execution of transactions between parties in connection with the protocol — "that is, when a given event occurs, the [transaction] auto-executes, without the need for third-party intervention from banks, lawyers, accountants, or the like." *Risley v. Universal Navigation Inc.*, --- F. Supp. 3d ---, No. 22-CV-2780 (KPF), 2023 WL 5609200, at *5 (S.D.N.Y. Aug. 29, 2023).

[11] In referring to "wallet software developers," this comment letter intends to include both those who create and publish wallet software and tools, and user interfaces that rely on wallet connectivity.

code for, and may initially deploy, the smart contracts that make up a DeFi protocol;[12] once deployed, these contracts execute user commands automatically without the need for any further human intervention or intermediation, operation or maintenance. Governance of the system and "smart contracts" is often distributed amongst holders of "governance tokens," which give their holders the right to vote on certain system changes or other governance matters ("DeFi tokenholders").

DeFi developers do not have access to DeFi user identifying information and, indeed, generally do not interact with DeFi users at all. In some instances, developers may not interact with the protocol in any manner after the drafting of the underlying source code and its deployment. DeFi tokenholders likewise do not have access to DeFi user identifying information and typically interact with the protocol only to the extent of voting on certain specified matters for which their tokens allow them to vote. There is generally no party with the ability to unilaterally alter the parameters of a DeFi system absent such a vote; indeed, this is an essential feature of DeFi. There generally is no one person who can pull the strings to simply "make the changes" necessary to attempt to capture user information in these systems.

To transact on a DeFi system, a DeFi user needs internet access and generally will use one or several types of access tools that are made available by other market participants or for free public use. Internet service providers have access to customer identifying information but do not have access to information regarding digital asset transactions. Those who create and publish DeFi access tools ("DeFi providers") similarly provide tools for accessing a DeFi system but are not intermediaries to transactions and generally do not interact with DeFi users in a way that would allow for the collection of customer identifying information.

All DeFi participants—indeed, all members of the public—have access to information regarding the transactions that occur on a DeFi system. Information regarding transactions on both centralized platforms and decentralized systems is pseudonymous, meaning that each transaction is recorded immutably on a publicly available ledger and linked to a wallet address—but transactions are not linked to personal identities. Due to the public and immutable nature of the vast majority of information regarding digital asset transactions on a blockchain, any attempt to link wallet addresses to personal identities would create a serious and permanent privacy issue for those users. Comparable to having a lifetime of credit card transactions published online, this would mean exposing each user's entire transaction history to the world. It does not take much imagination to understand that this is an unacceptable outcome that would pose risks to both the basic tenet of privacy and, in some cases, a user's physical safety and well-being. Accordingly, the ability to keep user identities private is one of the fundamental concerns of many digital asset holders. This is decidedly different from traditional finance, where providing your bank with a W-9 does not (or at least is not intended to) result in your personal information and transaction history becoming publicly accessible for all those with the technological skills to look.

These privacy concerns explain why DeFi systems add value to digital asset users. They provide a way to transact in digital assets without having to divulge sensitive personal information to a centralized entity that could be vulnerable to security breaches and hacks. Although humans are involved in protocol development, governance, and designing the tools used to access a DeFi

[12] After a protocol is launched, and because the source code is open source, any developer can add software to the base protocol without relying on or needing involvement from the developers who built the base protocol.

system, they do not act as intermediaries in a transaction between DeFi users. Moreover, humans may not be involved in a protocol at all once it is deployed on the blockchain – certain protocols simply exist and cannot be modified.

There is a pervasive misunderstanding on the part of policymakers about whether human beings are necessary for the continued performance of DeFi systems. The latest example of this misunderstanding is the recent report issued by IOSCO.[13] The IOSCO Report states that it is a "common misperception" that "DeFi products and services are offered in a fully automated manner using smart contracts, with no human involvement." On the contrary: this is not a "misperception," it is an accurate description of one of the defining characteristics of DeFi. The IOSCO Report may be trying to articulate the undisputed fact that humans are involved in *creating and deploying* a DeFi system, but after that point, users interact with one another directly. Consequently, there is no person or entity in the middle collecting DeFi user identities that could be used for purposes of information reporting. If there were, the system definitionally ceases to be a DeFi system, and would more closely resemble a centralized platform.

IV. THE PROPOSED REGULATIONS AS APPLIED TO CENTRALIZED PARTIES CREATE SEVERAL CONCERNS.

The Proposed Regulations create enormous obstacles for centralized platforms. Specifically, the Proposed Regulations fail to adequately account for the many implementation challenges that centralized platforms will face and the amount of time and money it will take these parties to comply with the type of reporting described in Section 6045.

A. There is inadequate time to implement the necessary system and documentation requirements.

The timeframe for required compliance with the Proposed Regulations is too short. The Proposed Regulations provide that the information reporting rules regarding gross proceeds are proposed to apply to sales and exchanges of digital assets effected on or after January 1, 2025, and the information reporting requirements relating to adjusted basis are proposed to apply to sales and exchanges of digital assets effected on or after January 1, 2026. The Proposed Regulations were published in the Federal Register on August 29, 2023. Assuming that the regulations are finalized in a timely manner,[14] affected parties would only have a little more than a year to build and implement internal systems in order to ensure compliance.

To see just how inadequate this time period is, compare it with the timelines for implementation under similar reporting rules governing non-digital assets. For example, the Foreign Account Tax

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[13] The Board of the International Organization of Securities Commissions, *Policy Recommendations for Decentralized Finance (DeFi): Consultation Report*, CR/04/2023, September 2023 (the "IOSCO Report").

[14] As a practical matter, centralized parties who are subject to the Proposed Regulations cannot begin to build the internal mechanisms necessary for collecting, processing, tracking, confirming, and reporting the required information without the certainty of finalized regulations. Our members believe that the costs of building out the required reporting systems will be quite significant, and it would be imprudent to begin incurring costs based on guesswork as to how the final regulations will read while there are currently over 50 questions posed for consideration, the answers to many of which could have a fundamental impact on what is or is not required for real-world compliance efforts.

Compliance Act ("FATCA") withholding regime was enacted on March 18, 2010. Treasury and the IRS published proposed regulations in early 2012, which were subsequently finalized and published on January 7, 2013. Although originally intended to take effect in the beginning of 2013, the IRS continued to push back the effective date of the regulations, in large part because commentators indicated that they would need additional time to make the system adjustments necessary to be able to report income and gross proceeds.[15] And although the regulations finally took effect on July 1, 2014, the IRS provided transition relief from IRS enforcement for calendar years 2014 and 2015. Thus, affected parties were given ***nearly four years*** to implement and comply with the rules contained in the FATCA regulations. It is telling that taxpayers in the traditional finance industry needed—and were accordingly given—this much time despite already having robust systems in place with respect to collecting information and withholding from customers that could be used as a starting point for building FATCA compliance systems.

Similarly, the broad application of the Section 871(m) regulations (relating to U.S. source dividend equivalents under Code §§ 871(m), 1441, 1461, and 1473) has yet to take effect. Treasury and the IRS proposed Section 871(m) regulations at the end of 2013, and issued final regulations on September 17, 2015 and January 24, 2017. The Section 871(m) regulations were set to take effect in January of 2017—however, the IRS postponed implementation of the regulations numerous times, again to allow the industry time to develop the necessary systems. The IRS noted that delays in enforcement were necessary to permit dealers, issuers, and other withholding agents additional time to continue to design, build, and test new withholding and reporting systems.[16] Most recently, the IRS further extended until 2025 full implementation of the U.S. withholding regime under the Section 871(m) regulations with respect to "dividend equivalent" amounts (Notice 2022-37). ***Nearly a decade has passed*** since the Section 871(m) regulations were published—and affected parties have still not been subject to enforcement of those requirements.

The implementation of the tax withholding regulations under Chapter 3 (Sections 1441-1464) of the Code were similarly delayed. Those regulations, which were proposed in April 1996 and finalized on October 14, 1997, significantly revised information reporting and backup withholding regulations under Chapter 61 and Section 3406 of the Code. The regulations were meant to apply to all payments made after 1998; however, Treasury and the IRS recognized that the final regulations would "likely require significant changes to business practices and information systems for many U.S. foreign withholding agents."[17] Accordingly, the effective date of the withholding requirements was delayed until January 1, 2001—a little over three years after the final regulations were promulgated.

Like the FATCA regime, the Section 871(m) regulations, and the Chapter 3 withholding regulations, the Proposed Regulations are similarly complex and far-reaching. Yet, parties transacting in digital assets will have far less time to comply with the Proposed Regulations. The constricted time period for implementation of the Proposed Regulations reflects an unacceptable

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[15] Preamble to "Regulations Relating to Information Reporting by Foreign Financial Institutions and Withholding on Certain Payments to Foreign Financial Institutions and Other Foreign Entities," REG-121647-10 (Feb. 8, 2012).

[16] Notice 2018-72.

[17] Notice 98-16.

lack of parity between digital assets and non-digital assets (discussed further below) that must be addressed.

Discussed below are some of the specific difficulties that will make implementation within the allotted time frame impractical or, in some cases, impossible.

1. System Requirements

Centralized brokers will not have the necessary time to put into place all of the required systems to comply with the Proposed Regulations in the time period allotted. The implementation challenges facing centralized brokers subject to Section 6045 are immense. Centralized brokers are not currently required to collect the necessary information for any of their existing customers, requiring remediation efforts for current customer populations, as well as new mechanisms to collect the information from new customers. At a minimum, the steps that centralized brokers need to take include the following, each of which will take significant time:

- **Build systems to capture gross proceeds, cost basis, and other required information regarding transactions.** Centralized brokers will need to develop systems to capture gross proceeds and cost basis information with respect to transactions, which is not currently required.

- **Build systems to capture customer information and maintain required documentation.** The reporting obligations under Section 6045 do not apply to sales effected for a customer that a broker may treat as an exempt recipient or as an exempt foreign person (Treas. Reg. § 1.6045-1(c)(3) and (g)(1)). A broker may treat a customer as an exempt recipient based on a Form W-9, and may treat a customer as an exempt foreign person based on a beneficial owner withholding certificate, such as a Form W-8BEN (Treas. Reg. § 1.6045-1(c)(3)(i)(C)). While determining a customer's status as either an exempt recipient or an exempt foreign recipient obviates the need to report under Section 6045 and the Proposed Regulations, many centralized parties do not have the systems necessary to collect and validate the necessary information reported on Forms W-9 or W-8. Currently, centralized parties are not required to collect this information from their customers—the Proposed Regulations implicitly require such centralized parties to build an additional set of compliance systems in order to validate their customers' status.

- **Collect customer information from existing customers.** All current customers will need to be remediated to ensure that sufficient information is on file to comply with the reporting regulations. This can happen only once the appropriate systems and processes are in place to gather and store the required information and to review the information for completeness. Brokers and their customers should be given sufficient time and opportunity to work through documentation issues prior to imposing backup withholding.

- **Build systems with significant tracking capabilities to monitor US indicia.** For foreign brokers, reporting and potential backup withholding will be required under the Proposed Regulations if certain "U.S. indicia" are present. The list of U.S. indicia in the Proposed Regulations includes indicia such as a customer's association with an IP address within the United States. Because any customer who ever travels to the United States would likely have "U.S. indicia" under this standard, the burden on foreign brokers to track these events and store IP address data—and to obtain Forms W-8 when such events

occur—will be enormous. Another "U.S. indicia" in the Proposed Regulations is that a customer's account is linked to a digital asset broker that the broker has "reason to know" is organized in the United States. Putting systems into place to sufficiently monitor and reliably capture situations where there is "reason to know" will be difficult and time-consuming, if possible at all.

- **Build systems for backup withholding.** To the extent that customers of centralized parties do not complete and turn in the required Forms W-9 or W-8, or other necessary documentation to establish that they are not subject to the Proposed Regulations, centralized parties must impose backup withholding in accordance with Section 3406. Centralized parties do not currently maintain systems capable of withholding; this is an additional requirement imposed by the Proposed Regulations which necessitates further time for compliance.

- **Build systems to track what method customers use for cost basis.** Because taxpayers have the option of using different methods to determine cost basis (e.g., FIFO versus specific identification), brokers need to build systems to assist customers in specifying these methods and tracking basis based on the customer's chosen method.

In the Proposed Regulations, Treasury recognizes that brokers will likely need to build systems to (i) collect and store customers' information, including names, addresses, and tax identification numbers, (ii) collect and store information about customers' digital asset transactions, (iii) report this information to the IRS and taxpayers (or find a service provider to do so), (iv) develop and maintain the ability to backup withhold and (v) deposit withheld tax with the IRS for applicable taxpayers. The burden estimate provided for compliance, however, is only $27,000 per broker, per year. But this figure grossly underestimates the costs involved in creating numerous systems from scratch. Based on information reported by Blockchain Association members, a more realistic figure would be in the tens—if not hundreds—of millions of dollars. Further complicating and slowing the efforts of brokers are the myriad other reporting regimes with which they may need to simultaneously comply (e.g., CARF, DAC8, CESOP).

Another complication is that where withholding is required on digital assets, brokers would presumably need to remit withholding amounts in U.S. dollars, requiring brokers to sell digital assets. We note this is a particular challenge given the lack of an exclusion in the current draft for in-kind exchanges, meaning that there may be numerous reportable transactions where no cash or cash equivalents are part of the exchange. While it would be interesting to explore whether the IRS would consider accepting an in-kind payment for such transactions, we have assumed that backup withholding, when needed, would have to be done in cash. This raises a bevy of unanswered questions and issues: brokers should not be responsible for bearing market losses, but how would that be implemented? And if brokers end up selling digital assets at a gain in order to have sufficient U.S. dollars for withholding, to whom is that gain attributable? As discussed below, moving towards closer parity for non-digital assets, where non-cash exchanges are generally exempt, would aid in allowing brokers to comply.

2. Documentation Requirements

In addition to the required systems needed to comply with the Proposed Regulations, brokers will face a host of documentation challenges when attempting to implement gross proceeds and basis reporting. Many of those documentation challenges are evident from the discussion of systems

challenges above (e.g., after building a system to track U.S. indicia, centralized brokers will need to create and securely store massive amounts of documentation relating to their customers).

Because so many actors may be considered "brokers" under the Proposed Regulations, it is feasible—and indeed likely—that numerous parties to a transaction will provide the end-user with varying documentation attempting to quantify the transaction's gross proceeds and basis. Because of the limited perspectives that each broker has with regard to a transaction, this documentation would be varied, representing each broker's "best guess" as to the nature of the transaction. This would serve to confuse end-user taxpayers, who must report their gains and losses from digital asset transactions, but are relying upon others for the required information and to ensure that information is correct.

For these reasons, the Blockchain Association urges Treasury to provide that the rules regarding gross proceeds reporting take effect no sooner than the taxable year beginning at least *twenty-four months* after any finalized regulations are published, and that the rules regarding cost basis reporting take effect no sooner than the taxable year beginning at least *thirty-six months* after such finalized regulations are published.

B. The retroactive cost basis reporting requirement should be eliminated.

The Proposed Regulations require cost basis reporting for digital assets acquired after January 1, 2023. In reliance on official guidance from Treasury,[18] however, brokers have not yet built systems for tracking the basis of customers' assets. Requiring brokers to retroactively construct cost basis information for assets acquired by customers prior to the finalization of the regulations and without sufficient time to build systems consistent with the final regulations is untenable and inconsistent with the prohibition on retroactive regulations in Section 7805(b).

Requiring cost basis reporting retroactively for digital assets acquired before brokers are able to implement systems consistent with the final regulations will only create more confusion for the IRS and taxpayers. Because brokers have not been tracking customers' elections to use lot relief methods (such as specific identification) when disposing of digital assets, brokers will be forced to apply a "default" tracking method (e.g., FIFO). This "default" method will in many cases not match the actual method used by the taxpayer, leading to inconsistent reporting and confusion. This confusion and inconsistency will last indefinitely; taxpayers could sell an asset years later that the "default" method used by the broker deems as having already been sold, whereas the correct cost basis is different under the taxpayer's specific identification method. Brokers need time to implement systems that will allow them to track customers' selection of lot relief methods and report cost basis accordingly.

C. Stablecoins pegged to the U.S. dollar should be excluded.

As discussed above, the broad definition of "digital asset" in the current Proposed Regulations captures assets whose value is pegged to an underlying currency, commodity, or financial instrument, including stablecoins. Certain stablecoins are pegged to the U.S. dollar and operate as a stand-in for fiat money, particularly in online transactions. Such stablecoins are often backed by a reserve of treasury bonds or other highly secure assets, and afford rights to exchange such

[18] IRS Announcement 2023-2 (stating that "[b]rokers will not be required to report or furnish additional information with respect to dispositions of digital assets under section 6045 . . . until those new final regulations under sections 6045 and 6045A are issued").

stablecoins for fiat, such that holders are confident that the value is essentially locked, in all material respects, to their pegged dollar amount. Holders do not invest in stablecoins for gain through price appreciation, but rather utilize them as a form of payment for digital commerce – in the same way that one would utilize a credit card, a debit card, PayPal, Venmo, or a host of other payment options, in lieu of paying for 21st-century transactions with cash or checks. Notwithstanding that transactions in such stablecoins are functionally equivalent to electronic transfers of dollars, and that it would be extremely unusual for a holder to recognize gain or loss on such stablecoins, the Proposed Regulations would subject stablecoins whose value is pegged to the dollar to the same reporting obligations as other assets held purely for investment.

Transactions in currencies are generally not required to be reported – even foreign exchange transactions where gain or loss may well be present. Under current law, foreign currency transactions are exempted from reporting under Section 6045. It is highly inappropriate to require reporting for stablecoins that are functioning as an equivalent to the U.S. dollar while exempting those transactions on which gain or loss may well occur and where a holder is far more likely to be seeking to profit from value movements.

The Proposed Regulations solicit comments on whether the regulations should "exclude reporting on transactions involving the disposition of U.S. dollar related stablecoins that give rise to no gain or loss, and if so, how should those stablecoin transactions be identified" (Part I.K. of the *Explanation of Provisions*). Digital assets that are pegged to currency should be excluded from the definition of "digital asset" under the Proposed Regulations. We acknowledge the statement in the Preamble to the Proposed Regulations that "the value of a stablecoin may not always be stable and therefore may give rise to gain or loss." However, this approach is essentially throwing the baby out with the bathwater by imposing reporting burdens on billions of transactions out of concern that in a few corner cases, a particular stablecoin may not live up to the name. To the extent that Treasury believes a meaningful number of stablecoin transactions may be effected at a price that does not match the underlying U.S. dollar peg, and hence may give rise to meaningful gain or loss that would not otherwise be reported, we would suggest imposing a broad exception for stablecoins pegged to the U.S. dollar, with a limitation (turning off the exception) for instances where the trading price of the stablecoin at issue varies from its U.S. dollar peg in a meaningful way. Allowing for only a very limited range of value fluctuation (perhaps 1% at the time of the transaction) would address the concerns raised in the Preamble, while eliminating the vast majority of the staggering number of transactions that would otherwise be required to be reported. In addition to improving outcomes for both taxpayers and the IRS by capturing only those transactions with meaningful gain or loss, common-sense approaches of this sort also would appear likely to increase buy-in and compliance from industry participants.

If Treasury will not entertain such an exclusion from the definition of "digital asset," such stablecoins should still largely be excepted from reporting under Section 6045 under a *de minimis* threshold (discussed below). If such stablecoins are not excepted from reporting, compliance may be effectively impossible, given the large number of small value exchanges using stablecoins—potentially billions of transactions per year on a single exchange.

D. A *de minimis* exception is needed.

A meaningful *de minimis* threshold would increase compliance with the Proposed Regulations, help avoid an overwhelming amount of unnecessary information being sent to taxpayers and the IRS, and better reflect Treasury's stated reasons for the new information rules for digital assets.

The Proposed Regulations point to limits on third party information reporting as an important factor contributing to the tax gap. In addition, the Proposed Regulations stipulate that third-party information reporting by brokers would lead to higher levels of compliance.

An annual *de minimis* threshold—both for gross proceeds and for gain or loss—would be a practical solution to address both of these stated goals. A *de minimis* threshold would likely increase compliance with the Proposed Regulations and the practical utility of the information reported to Treasury, as affected parties would not have to wade through the deluge of small-value transactions to ensure each one is accurately reported. And in the event that numerous "brokers" report on the same transaction, taxpayers would not have to spend time determining which Form 1099 they receive is the most accurate reflection of their small-value transaction. Decreasing the amount of unnecessary and inefficient paperwork would also increase end-user compliance with tax requirements.

A *de minimis* threshold under which transactions of digital assets are exempted from reporting would not meaningfully increase or contribute to the tax gap. The foregone income tax from exempting small digital asset transactions is relatively small when compared to the entire universe of taxable digital asset transactions. The large costs of compliance for any broker and any affected taxpayer greatly outweigh the trivial amount of any income tax that would be remitted to the fisc.

We further note that it is not clear whether Treasury has accurately weighed the increased costs that would be placed upon it to attempt to absorb billions and billions of filings per year relating to *de minimis* amounts. Any additional tax collected by reason of reporting such *de minimis* amounts surely would be dwarfed by the costs of attempting to gather, store, and utilize the data.

Accordingly, the Blockchain Association suggests that any final regulations include an annual *de minimis* threshold of $20,000 in gross proceeds and $10,000 in gain or loss—i.e., no reporting would be required if gross proceeds are less than $20,000 and gain or loss is less than $10,000.

E. The Proposed Regulations should provide parity with non-digital assets.

When applying Section 6045 to digital "brokers," the existing reporting standards used for traditional finance and non-digital assets should be replicated unless there is sufficient justification for a deviation from those existing rules. The Proposed Regulations materially deviate in many ways from those existing rules without sufficient justification and in a way that will create additional difficulties, confusion, and implementation issues.

1. Unjustified departures from existing rules

Definition of "sale." Digital assets should be treated no differently from stocks or other securities (as defined by the tax code) when determining what should constitute a "sale" for broker reporting purposes. A "sale" of securities for purposes of broker reporting is generally limited to dispositions for cash, Treas. Reg. § 1.6045-1(a)(9), while a "sale" of digital assets for purposes of broker reporting includes exchanges for other types of property such as different digital assets. The Proposed Regulations do not offer a justification for this disparity.

Documentation requirements. The Proposed Regulations require digital asset brokers to report more information than is required for brokers of traditional assets. For example, reporting for digital assets would require not just reporting of the date of a transaction but also the exact time. Reporting the exact time of a transaction is unnecessary, will add to the voluminous nature

of the reports received by taxpayers and the IRS, creates additional difficulty with implementing the use of a single time zone, and is an unjustified invasion of taxpayer privacy. This information is not required to accurately determine tax liability, as evidenced by the fact that it is not required for transactions of non-digital assets. These types of parity issues could be avoided by using the existing Form 1099-B rather than a new Form 1099-DA.

Another way in which the documentation requirements for digital asset brokers are more onerous than those for brokers of traditional assets is the "U.S. indicia" that foreign brokers of digital assets will need to track. As explained above, foreign brokers will be required to expend massive amounts of resources to build and monitor the systems needed to track "U.S. indicia" such as IP addresses and "reason to know" that a customer's account is interacting with or linked to a U.S. digital asset broker. As further explained above, these "U.S. indicia" are not meaningful (e.g., a user could ping a US IP address while on vacation or using an employer's VPN) and are not used for brokers of traditional assets, despite the fact that a great amount of traditional financial activity now happens via the Internet.

Multiple broker rule. For non-digital assets, the "multiple broker rule" applies to avoid duplicative reporting.[19] This rule should apply to digital assets as well.

In the Preamble to the Proposed Regulations, Treasury explains that this rule should not apply to digital asset brokers for two reasons. First, Treasury states that "it may be difficult for a broker to determine whether a particular digital asset platform also qualifies as a broker for purposes of these proposed regulations." Treasury is thus admittedly aware of the deeply problematic ambiguity in the regulations regarding who qualifies as a "broker" of digital assets. Treasury's failure to draft clear guidance regarding who qualifies as a "broker" does not justify its further failure to mitigate the duplicative reporting of potentially massive amounts of transactions by an unknown number of brokers.

Second, Treasury states that the IRS does not feel assurance that digital asset brokers will comply with their tax reporting obligations. In other words, Treasury is imposing massive duplicative reporting requirements on parties who may be ill-equipped or simply unable to comply with those requirements because of an unsubstantiated fear that the parties who are best equipped to comply will not do so. If Treasury and the IRS do not expect brokers to comply with the Proposed Regulations, and are drafting them with this expectation in mind, this undermines the justification for the entire reporting regime in the first place and punishes the entire ecosystem based on expectations rather than reality.

Additional time to implement. As explained above, the traditional finance industry has historically received time to implement reporting changes well beyond the time anticipated in the Proposed Regulations. Because the digital asset industry is starting from scratch, this is a reason to provide *more* time to the digital asset industry, not less.

2. Necessary departures given the unique aspects of digital assets

Backup withholding guidance and flexibility. Backup withholding for certain digital assets is very different from backup withholding for traditional assets. For example, to the extent that NFTs are included as "digital assets" (which, in general, they should *not* be as explained below),

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[19] *See* Treas. Reg. § 1.6045-1(c)(3)(iii).

backup withholding should not be required. Digital assets such as NFTs are impossible to withhold against directly; in order to comply, brokers would need to set up margin accounts with cash or cash equivalents, or take other assets from the customer's account as the required withholding. Treasury and the IRS have also acknowledged that there are challenges in valuing property such as NFTs, which makes determining the proper amount of withholding difficult or impossible.

De minimis thresholds. For both reporting and backup withholding purposes, *de minimis* thresholds make sense for digital assets, as explained above. Even with *de minimis* thresholds, the sheer number of transactions in digital assets will result in overwhelming reporting for both taxpayers and—perhaps even more so—the IRS.

F. The Proposed Regulations should be inapplicable to NFTs.

Unlike some other digital assets, non-fungible tokens (NFTs) are not representations of value. Each NFT has a unique set of characteristics and is therefore not fungible. Some NFTs are akin to digital collectibles such as a baseball card or a piece of artwork. Other NFTs may represent the digital form of a physical asset. Still others represent a form of media such as a song or video clip. NFTs may also represent a form of digital identity, social media profile or username, admission ticket, digital credential, or participation in a consumer rewards program. The value of each NFT derives from its own particular attributes and from individuals' subjective evaluations of its desirability.

The Proposed Regulations do not grapple with the varied use cases for NFTs. As one example, Starbucks offers its rewards members the opportunity to earn and purchase NFT collectibles, which provide access to benefits and other experiences (such as virtual espresso martini making classes, or visits to coffee farms). Starbucks rewards members earn NFTs by engaging in a series of activities such as interactive games or challenges. Users can also purchase limited-edition NFTs through a marketplace using a credit card. Because the Proposed Regulations sweep all NFTs into its reporting requirements, Starbucks would seemingly need to comply with the broker reporting rules under Section 6045, though it would seem clear that this is not within the scope of what Congress would rationally have intended.

Just as physical collectibles, social media profiles or usernames, songs, video clips, admission tickets, credential certificates, or rewards points are not subject to reporting under Section 6045, NFTs should be similarly exempt.

V. THE PROPOSED REGULATIONS ARE INFEASIBLE WHEN APPLIED TO NON-CUSTODIAL WALLET SOFTWARE DEVELOPERS.

As explained above, non-custodial wallets require the digital asset owner to hold the private keys and therefore provide control and privacy to the owner in contrast to a custodial wallet. Non-custodial wallets eliminate the risk of a third party misusing the private keys because the digital asset owner is not required to share them with anyone. This also decreases the risk of a breach or attack on the digital assets, since the only way to access the private keys to any non-custodial wallet would be to target the specific digital asset owner.

Non-custodial wallet software developers often provide certain additional functionalities for their users. For example, as also explained above, non-custodial wallet software developers often provide some interface or functionality to make exchange protocols or blockchains accessible for users, but they do not act as intermediaries for digital asset transactions and have no visibility

into these transactions. Offering these additional types of functions does not give non-custodial wallet software developers any additional information regarding customers or their transactions.

In the Proposed Regulations, Treasury recognizes that providing wallet functionality does not make a party a "broker" and provides an exception from "broker" status for wallet software developers. But this exception is so limited as to be practically useless. The wallet exception to "broker" status extends only to "the selling of hardware or the licensing of software for which the *sole* function is to permit persons to control private keys which are used for accessing digital assets on a distributed ledger if such functions are conducted by a person solely engaged in the business of selling such hardware or licensing such software" (emphasis added). This exception is unduly narrow given that most non-custodial wallet software offers some supplemental functionality in addition to allowing users to securely control their private keys. The Proposed Regulations also clarify that "[s]oftware that provides users with direct access to trading platforms from the wallet platform is not an example of software with the sole function of providing users with the ability to control private keys to send and receive digital assets." Thus, wallet software developers who do no more than provide a link to a wholly unrelated platform—or who merely provide translation services of English to computer code that users can then use to interact with unrelated platforms on their own—may be considered "brokers" notwithstanding the exception for wallet software developers. We do not believe this is the intention of Congress or Treasury.

These wallet software developers have no more access to customer or transaction information than do wallet software developers who do fall under the regulatory exception. There is no principled reason to distinguish between these types of functionality. When users of non-custodial wallets connect to a trading platform within the wallet software, the software simply provides access to the trading platform through an iframe or API, which is akin to a portal or window within a window. By simply providing a link to a separate trading platform where the transaction actually occurs, the non-custodial wallet software is not actually carrying out a transaction as a traditional broker would. The non-custodial wallet software provider has no insight into the information going in or coming out of the user's activity on the trading platform, thus providing no means by which the software provider could collect or report the information required by the Proposed Regulations.

Non-custodial wallet software developers also cannot perform any necessary backup withholding because they have no ability to reach into a customer's wallet to access funds. A distinctive feature of non-custodial wallets is that the user is the only one with access to the private key. The non-custodial software provider does not maintain access to the private key. To comply with the Proposed Regulations, non-custodial wallet software developers who also provide standard ease-of-access services would need access to the private key in order to conduct any necessary backup withholding. This would result in non-custodial wallet software developers having to provide *custodial* wallets. In other words, compliance would require wallet software developers to fundamentally change the nature of their activities or shut down. The Proposed Regulations do not address this issue nor do they analyze the cost to wallet software developers of theoretical compliance.

Moreover, defining non-custodial wallet software developers as brokers would result in duplicative reporting. In the example above, both the trading platform and the non-custodial wallet software provider would be required to collect and report the same transaction information even though the non-custodial wallet software is not actually carrying out the transaction. This falls out of line with the broker reporting regime in traditional finance, which places reporting obligations onto

the broker actually performing the transactions. Treasury's explanation of the definition of broker as applied to digital assets inappropriately creates disparities between assets solely based on whether or not those assets are stored on a distributed ledger. This is improper and does not align with Congress's intent.[20]

VI. THE PROPOSED REGULATIONS ARE INFEASIBLE WHEN APPLIED TO DEFI.

As explained above, DeFi provides a way for users to transact with one another without involving any intermediary or middleman—i.e., it allows for "peer-to-peer" transactions or transactions directly with a smart contract. As a result, DeFi provides increased efficiency and lower transaction costs, and provides a way to transact without the risk that any third party or intermediary will make a mistake, steal assets, misuse user information, or subject user data or funds to a security breach.

DeFi by its very nature lacks any centralized party who acts as an intermediary or middleman for digital asset transactions and who could be responsible for compliance with the Proposed Regulations. The Proposed Regulations nonetheless attempt to impose obligations on various participants in DeFi. For some such participants, the Proposed Regulations are so vague that it is unclear whether or not the Proposed Regulations apply to them in the first instance. For others, it will be functionally impossible to comply with the Proposed Regulations as currently drafted. The sum result is that the Proposed Regulations would likely cause many DeFi participants to simply cease any activity, or result in their shifting entirely overseas.

Because of the issues inherent in regulating DeFi systems in this manner, we strongly suggest a staged approach that focuses first on centralized trading platforms. Centralized trading platform reporting alone would result in a massive amount of reporting. If a significant tax gap still exists that justifies further regulation after the rollout of tax reporting for centralized trading platforms, we believe that it is imperative for the government to collaborate with DeFi participants to find workable solutions in that space. With more time, and with lessons learned from the roll-out of the digital asset reporting requirements to centralized trading platforms, all parties will be better equipped to consider appropriate tools to help facilitate tax reporting while continuing to safeguard the privacy of DeFi users and allowing DeFi to exist and evolve. Such an approach could help facilitate overall tax compliance by encouraging buy-in from DeFi users.

Practically speaking, attempting to apply the Proposed Regulations to DeFi as they are currently drafted would not likely result in widespread compliance. As noted above, for many DeFi protocols, the system can be altered only by, at a minimum, an affirmative vote of governance tokenholders (many of whom may not be in the United States). There is no party with a unilateral ability to force changes of the sort that would be necessary to comply. Even assuming that parties involved with a given DeFi system (be it a founder, a developer, a holder of governance tokens, or others) wished to attempt to revise the system or protocol such that a user's identifying

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[20] At a minimum, we suggest that the final regulations explicitly exclude from the definition of "broker" unhosted wallets that are linked by users to third-party service providers that facilitate the sale or transfer of digital assets. Such an exception would be an appropriate acknowledgement that (1) non-custodial wallet software developers do not have access to the information required to be disclosed under the Proposed Regulations, and (2) if somehow such non-custodial wallet software developers did have access to the requisite disclosure information, that information would be duplicative of other disclosures made by other parties who fall under the definition of "broker."

information were to be embedded in the blockchain or otherwise tracked, a majority of all governance tokenholders would need to approve such a change, as the system (by its very coding) would not allow such changes without recording the affirmative vote (if at all).

Given the concerns raised below, as well as the fact that many (and in some instances a majority) of the holders of governance tokens may well be located outside the United States, it seems likely, based on The Blockchain Association's discussions with its members and other DeFi participants, that changes of the sort necessary to comply with the Proposed Regulations would not be approved, even if those changes could be made at all. This would leave U.S. parties who are, or may (given the vagueness noted below) be, subject to the Proposed Regulations, and who wish to avoid any risks of noncompliance, in a position of simply having to abandon their projects. Ex-U.S. participants, on the other hand, would presumably continue their activities. Driving tax-compliant U.S. involvement in DeFi out of existence or to a dramatically reduced level would not serve the national interest, but would create a significant risk were the Proposed Regulations enacted in their current form.

A. "Broker" status is contrary to the fundamental premise of DeFi.

To comply with the tax reporting regime, DeFi would have to change its very nature. As explained above, the fundamental premise of DeFi is that users can interact directly with one another and any person who could reasonably be considered a broker—i.e., any type of transactional intermediary or middleman—is eliminated. In other words, the distinguishing feature of DeFi is its decentralized, distributed nature, including the lack of any centralized party who could possibly collect the type of information that the Proposed Regulations requires "brokers" to report.

If any participant—or multiple participants—in DeFi were forced to find a way to collect information from DeFi users in a way that would allow the reporting required by the Proposed Regulations, DeFi would ultimately cease to exist. The centralization required for any party to collect this information is not compatible with the underlying concept of DeFi. In essence, the Proposed Regulations would be *creating* intermediaries where none previously existed in the DeFi space.

Congress did not authorize Treasury to destroy DeFi; it merely "clarifi[ed]" the definition of "broker" for purposes of Section 6045, suggesting that "brokers" with respect to digital assets are statutorily required to be "middlemen." Similarly, even Treasury previously expressed the "view that ancillary parties who cannot get access to information that is useful to the IRS are not intended to be captured by the reporting requirements for brokers."[21] Whether by intended effect or failure to understand the nature of decentralized finance, Treasury has drafted regulations that capture just such parties and that are fundamentally incompatible with DeFi itself rather than regulations that simply regulate DeFi. As discussed in the next section of this comment letter, the issues raised by the flawed drafting here are so profound as to raise significant Constitutional questions.

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[21] Letter from Jonathan C. Davidson, Department of the Treasury, Assistant Secretary for Legislative Affairs, to various Senators (February 11, 2022) [available at https://www.stradley.com/insights/publications/2022/02/-/media/e295168ea3714c528af55eb44cad7e30.ashx].

B. The definition of "broker" is infeasibly overbroad.

Through the nested definitions of "broker," "effect," "digital asset middleman," and "facilitative services" discussed above, the Proposed Regulations include certain parties or platforms as "brokers" subject to the reporting regime even though they do not in fact act as brokers, intermediaries, or middlemen; do not interact with any "customers"; and as such do not have a realistic pathway to compliance.

In particular, the following parties appear to be included in the definition of "broker":

- **Access service providers**. Although unclear, an access service provider—such as an internet service provider ("ISP")—appears to meet the definition of "broker" in the Proposed Regulations. Under Prop. Treas. Reg. § 1.6045-1(a)(iii)(A), a "facilitative service" includes (but is presumably not limited to) "the provision of a service that directly or indirectly effectuates a sale of digital assets," such as "providing access to digital asset trading platforms." An ISP indirectly effectuates such sales by providing access to the websites and internet connection necessary to access a digital asset trading platform. In addition, according to the Proposed Regulations, an ISP "would know or be in a position to know" the identity of the party that makes the sale and the nature of the transaction, because under Prop. Treas. Reg. § 1.6045-1(a)(ii)(A) and (B), an ISP would have the ability to change the fees charged for its facilitative service.

  This example illustrates the overbreadth of the Proposed Regulations, both in the definition of a "facilitative service" and the concept of being in a "position to know" certain information. We believe that it is not the intent of the Proposed Regulations to reach ISPs, but nevertheless the language of the Proposed Regulations brings them within scope.

- **Access tool providers**. Developers of tools and software that allow for more convenient access to a DeFi system or that assist users in their interactions with a DeFi system would appear to be included in the definition of "broker" in the Proposed Regulations, in a similar manner to an ISP. Examples may include browsers, block explorers, wallet applications, and other website or app developers that provide tools for users to help them interact with a DeFi protocol. None of these providers actually transacts on behalf of a customer or is in a position to gather information about customer trades any more than an ISP could theoretically ask its customers to identify digital asset trades accomplished through its internet service as a part of its terms of service.

- **Non-custodial wallet software developers**. As discussed above, most non-custodial wallet software developers also provide other functionality to their customers (such as providing an interface to interact with an unrelated exchange's protocol) and therefore would be "brokers" who do not fall under the Proposed Regulations' extremely narrow exemption for wallet providers. But by providing this additional functionality, these non-custodial wallet software developers do not gain any additional insight into customer or transaction information.

- **DeFi Developers**. DeFi developers create and many times deploy the protocol that may ultimately be accessed by users to effectuate transactions, but this does not give them any awareness of any particular digital asset transactions beyond what is publicly known via the blockchain, and they are not realistically in a position to know the identity of

transacting parties and the nature of those transactions. Indeed, after drafting the code (or part of the code) to establish a DeFi protocol, a DeFi developer may never interact with the protocol again.

- **DeFi Tokenholders**. DeFi tokenholders often act in a decentralized manner that may include voting on certain aspects of a DeFi system. They can vote by virtue of holding governance tokens, but they do not have the ability to unilaterally take action. By voting on certain aspects of the protocol, they, like other DeFi participants, may help to allow users to interact with the system. They do not act as an intermediary for any users.

- **Website Providers**. Websites of various types have information and functionality that can assist holders of digital assets in effectuating trades, but these websites never act as intermediaries for trades and have very limited interaction with customers. Examples include websites that serve as bulletin boards or message boards focused on digital assets; websites that help users "explore" the blockchain and interact with unrelated protocols; websites that "translate" English into potentially usable computer code; and websites that simply explain how to access the blockchain.

- **Web2 Companies**. Various types of web2 companies, such as search engine providers and app stores, have information and functionality that can ostensibly "facilitate" holders of digital assets in effectuating trades. These web2 companies do not act as intermediaries for trades and likewise have very limited interaction with customers.

None of the parties in the categories above are serving a role that would generally be thought of as a broker or middleman, or that falls within the statutory definition. While their activities are forced into the scope of "middleman" via the Proposed Regulations, a plain English reading of the Code ("any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person") forecloses finding that any of these parties meet such standard.

C. The definition of "broker" is infeasibly vague.

Another major problem with the Proposed Regulations is their lack of clarity. The definition of "broker"—and its subsidiary definitions, such as "facilitative service" and "position to know"—are so vague that they leave many digital asset participants with no clear understanding of whether they are subject to the reporting requirements.

One example in the Proposed Regulations of a "facilitative service" is "providing an automated market maker system." It is unclear whether writing and publishing computer code for an automated market maker would constitute "providing" the system to customers. Similarly, it is unclear whether an individual who publishes a website or wallet application that allows access to a DeFi system would be considered to be "providing access to an automatically executing contract or protocol" or digital asset trading platform. What about a website or wallet application that merely describes what functions a user should input to effectuate transfers on a DeFi system? The definition of "facilitative service" is not limited to its examples, covering any service that "directly or indirectly effectuates a sale of digital assets."

As another example, the definition of "facilitative service" excludes certain types of validating transactions. However, the concept of "validating" is much more nuanced than the Proposed

Regulations appear to contemplate. For example, in many systems there are separate parties called "block builders," who arrange the transactions into blocks for validators to validate. These entities facilitate validation, but do not perform validation themselves. As currently drafted, the Proposed Regulations contain a broad definition of "facilitative service" with a narrow exclusion for "validating," indicating that block builders may be providing "facilitative services" as the Proposed Regulations are currently drafted, as illogical as that may be.

Another source of uncertainty is the definition of "person" for purposes of the regulations. Although the Proposed Regulations themselves do not contain a definition of "person," the Preamble states that the term "person" "generally has the meaning provided by section 7701(a)(1), which provides that the term generally includes an individual, a legal entity, and an unincorporated group or organization through which any business, financial operation, or venture is carried on." Putting aside the lack of clarity in the word "generally" used in the Preamble, this definition of "person" inserts significant uncertainty into the operation of the Proposed Regulations. Especially in decentralized contexts, groups of individuals who may not even be aware of each others' identities may, collectively, engage in common behavior (such as independently voting their tokens in connection with a DeFi system).[22] In the context of DeFi, there is no precedent to help determine whether such distributed groups could potentially constitute a partnership or "unincorporated group" for U.S. federal income tax purposes—and, to our knowledge, there has been no consideration given to the broader impact of such a characterization on DeFi and its participants.

One of the most troublesome sources of uncertainty in the Proposed Regulations is the definition of persons who "ordinarily would know or be in a position to know the identity of the party that makes the sale and the nature of the transaction potentially giving rise to gross proceeds from the sale." This "position to know" standard is met, according to the Proposed Regulations, if the person "maintains sufficient control or influence over the facilitative services provided" such that they have "the ability to change the fees charged for facilitative services." Several issues arise from this standard.

First, the purported ability to change the fees charged for facilitative services does not translate into actually knowing or being in a position to know identifying customer information. Practically speaking, to be in a position to know the identities of customers, therefore, DeFi participants would need to put into place sophisticated systems for collecting and storing DeFi user data—which, as discussed above, would fundamentally change the very nature of DeFi.

Second, the concept of "sufficient control or influence" to change the fees charged is also hopelessly vague. With respect to "sufficient control," it is unclear whether and to what extent holders of governance tokens would be viewed as having "sufficient control or influence" under the regulations. Would any group of governance token holders with over 50% of the voting share have "sufficient control" in the aggregate—even if these token holders do not know each other, or do not generally act in concert? What about a governance holder with veto power over protocol changes but not the power to initiate a change?

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[22] The Preamble specifically requests comments regarding "the extent to which holders of governance tokens should be treated as operating a digital asset trading platform business as an unincorporated group or organization."

The "sufficient influence" standard is equally, if not more, problematic. Practical ability to "influence" a protocol—e.g., through social media—should never subject a party to "broker" status (assuming this is even what is meant, which is unclear from the text of the Proposed Regulations). It is also unclear how this would be measured – if an individual (be it a founder, celebrity, or otherwise) believes that their voice would carry weight with holders of governance tokens, would this then make them a broker? How would a taxpayer ever know the true motivations of governance token holders for voting on a certain matter, and how would the government confirm or challenge that determination? Regardless of such "influence," such a party would not have access to customer information and thus never actually be in a "position to know." However, the Proposed Regulations would require parties to determine whether they have "sufficient" "influence" in the absence of any guidance regarding what level of influence could subject that party to the reporting requirements, let alone how those parties could possibly comply. Simply put, the Proposed Regulations once again create great uncertainty about what DeFi entities would even be covered by the Proposed Regulations.

We note that in other areas of the tax law, when measuring "control" or "relatedness" for purposes of imposing particular tax consequences, objective percentage standards are used – be that for purposes of defining a "controlled foreign corporation" and/or a "United States shareholder" under Sections 951(b) and 957(a), for purposes of defining related parties under Sections 267 and 707, and for purposes of defining "control" under Section 304, among a myriad of other places. Providing the public with clear, measurable standards (rather than subjective standards of "influence", or undefined levels of "control") is an essential feature for workable rules. Tokenholders and other participants in DeFi systems should not be "brokers" in the first place for the reasons outlined above; the vagueness of the Proposed Regulations only compounds the problem.

VII. THE PROPOSED REGULATIONS OVERSTEP TREASURY'S LEGAL AUTHORITY.

The Administrative Procedure Act, 5 U.S.C. §§ 551 *et seq.*, requires a reviewing court to set aside agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," "contrary to constitutional right," "in excess of statutory jurisdiction," or "unsupported by substantial evidence." 5 U.S.C. § 706(2)(A), (B), (C). The Proposed Regulations, if finalized, would fail each requirement.

First, the Proposed Regulations exceed Treasury's statutory authority because they expand the definition of "broker" far beyond the text of the IIJA. As discussed, the Proposed Regulations would accomplish by regulation what Congress explicitly considered, but rejected, by legislation. The Proposed Regulations expand the IRS's regulatory authority far beyond the bounds authorized by the IIJA. But the IRS "literally has no power to act … unless and until Congress confers power upon it," *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986), and Congress's use of the term "broker" did not authorize the IRS to impose onerous requirements on every person tangentially involved in cryptocurrency or other digital assets. The Major Questions Doctrine bolsters this argument: Absent clear Congressional authorization, Treasury acts in a way that would eliminate DeFi and fundamentally transform non-custodial wallet services. For good reason Congress withheld that authorization here.

Second, the Proposed Regulations violate the First, Fourth, and Fifth Amendment rights of regulated parties. The Proposed Regulations compel developers to write new code. That is expressive conduct that cuts to the heart of the DeFi and non-custodial wallet industries by

eliminating certain features of anonymity designed to protect participants. The Proposed Regulations impose content-based compelled speech, and are not narrowly tailored; they are likely to be struck down as contrary to the First Amendment. The Proposed Regulations also violate the Due Process Clause's fair notice requirement, because they fail to clearly specify who must comply with the reporting requirements.

Third, Treasury has not supported the Proposed Regulations with substantial evidence. The Proposed Regulations fail to quantify the costs or the benefits of the Proposed Regulations. On the costs side, as discussed above, the Proposed Regulations (1) vastly underestimate the costs of compliance by centralized parties, and (2) fail to grapple altogether with the likelihood that the Proposed Regulations will force the shuttering of regulated DeFi participants, or the likelihood that those parties will move any activities overseas. Nor do the Proposed Regulations estimate the burden on Treasury to process potentially billions of new filings. On the benefits side, the Proposed Regulations do not quantify the supposed "tax gap" or the benefits that third-party reporting would bring in closing that gap.

Fourth, the Proposed Regulations are arbitrary and capricious because they treat digital and non-digital assets differently without justification. As the D.C. Circuit recently explained vacating an SEC order, "dissimilar treatment of evidently identical cases is the quintessence of arbitrariness and caprice." *Grayscale Invs., LLC v. SEC*, No. 22-1142, 2023 WL 5536704, at *3 (D.C. Cir. Aug. 29, 2023). The Proposed Regulations impose more onerous reporting requirements on DeFi participants than traditional finance entities by broadening the scope of reporting entities and requiring brokers in the digital assets ecosystem to report more transactions, and at greater specificity, than brokers in traditional finance.

A. The Proposed Regulations are in excess of statutory jurisdiction.

The Proposed Regulations' application to DeFi participants and non-custodial wallet software developers exceeds Treasury's statutory jurisdiction set out in the IIJA. The Proposed Regulations contravene the text of the IIJA, which defines "brokers" as entities that "regularly provid[e] any service effectuating transfers of digital assets." Through a set of cascading definitions, Treasury's Proposed Regulations sweep in as "brokers" entities that have the ability to influence transactions, even if they never exercise that ability at all. That is contrary to the text of the IIJA. Congress does not "hide elephants in mouseholes," *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001), and its use of the term "brokers" did not authorize the IRS to impose requirements on every participant who could potentially influence a transaction involving digital assets. Separately, the Major Questions Doctrine requires that the Proposed Regulations be struck down. The Proposed Regulations threaten to wipe out the DeFi and non-custodial wallet industries in the United States. Under the Major Questions Doctrine, that would require a clear Congressional authorization. Congress did not provide any such authorization here. In fact, Congress affirmatively considered, and ultimately rejected, legislation that would have extended the IRS's authority to require reporting to DeFi participants. Basic application of the Major Questions Doctrine would require setting aside these Proposed Regulations.

More specifically, the Proposed Regulations' roundabout definition of "broker" sweeps significantly more broadly than the IIJA's definition, exceeding Treasury's statutory authority in at least two ways. *First*, through nested definitions of "broker," "effect," and "digital asset middleman," the regulations define as brokers entities that do not effectuate transactions. The Proposed Regulations conflate the term "affect" (to influence or have an effect on) with "effect" or "effectuate" (to cause to happen, to bring about, to give effect to, or to bring into effect). *See*

Bryan A. Garner, A Dictionary of Modern Legal Usage 305-06 (2001). By using the term "effectuate," Congress sensibly limited the reporting requirement to parties who actually carry out transactions. But the Proposed Regulations sweep much broader, capturing all entities who might provide "facilitative services" related to transactions. Thus, the Proposed Regulations sweep in entities like internet service providers and app marketplaces who may "provid[e] access to digital asset trading platforms." *See supra* pp. 23–24. But internet service providers and app marketplaces are not "service[s] effectuating transfers of digital assets on behalf of another person," as required by the IIJA. 135 Stat. 1340. While the "facilitative service[s]" described in the Proposed Regulations may *influence* transactions, they do not *cause* or *bring about* transactions. Moreover, these entities are ill-suited or unable to comply with the reporting requirements, *see supra* p. 7, which contravenes Treasury's insistence that the regulations are not meant to extend to ancillary parties who cannot access information useful to the IRS, *see id.* Because the Proposed Regulations require reporting from a host of entities who do not carry out transactions, they exceed Treasury's statutory jurisdiction.

Second, the Proposed Regulations define as a broker an entity who "stands ready" to effect sales. Prop. Treas. Reg. § 1.6045-1(a)(1). But the IIJA defines a broker only to include entities who are "responsible for regularly providing" effectuating services. 135 Stat. 1340. While Congress sensibly limited the scope of Treasury's authority to include only entities that actually provide transactional services, the Proposed Regulations exceed that definitional limitation to include entities who have never effectuated transactions before, but because they possess the technical ability to do so, are subject to onerous reporting requirements. The "stands ready" provision stretches the reporting requirement beyond the IIJA.

Each of these arguments would lead a court to invalidate the Proposed Regulations based on ordinary principles of statutory construction and the APA. That's because the "starting point in any case involving the meaning of the statute is the language of the statute itself." *Group Life & Health Ins. Co. v. Royal Drug Co.*, 440 U.S. 205, 210 (1979). The Proposed Regulations are inconsistent with the plain text of the IIJA, and there is no ambiguity in the term "brokers" that could authorize the sweeping approach that Treasury has taken to DeFi and non-custodial wallet entities.

What's more, the Major Questions Doctrine lends even more force to both of these arguments. In certain cases, "separation of powers principles and a practical understanding of legislative intent make [the Court] reluctant to read into ambiguous statutory text the delegation claimed to be lurking there." *West Virginia v. EPA*, 142 S. Ct. 2587, 2609 (2022). The Court has explained that the doctrine applies depending on the "economic and political significance" of the regulation, and that when it applies, the agency "must point to clear congressional authorization for the power it claims." *Id.*

Because Congress did not authorize Treasury to require DeFi entities or non-custodial wallet software developers to report, a court would invalidate the Proposed Regulations (if enacted). The Proposed Regulations would have the practical effect of driving many U.S.-based DeFi entities to cease activity or to restructure overseas. *See supra* pp. 21–22. In either event, the Proposed Regulations will eliminate innovation in decentralized technology in the United States. A result of that magnitude requires clear Congressional authorization. *See West Virginia*, 142 S. Ct. at 2612.

The Major Questions Doctrine would also apply for another reason: Congress considered, but ultimately rejected, the very authority now sought by Treasury. *See supra* pp. 5–6. Congress considered a draft of the IIJA that defined "broker" to include "any decentralized exchange or

peer-to-peer marketplace," but rejected that provision. That fact, coupled with "[t]he importance of the issue" to DeFi, calls for the doctrine's application. *West Virginia*, 142 S. Ct. at 2614.

Applying the Major Questions Doctrine here would require setting aside the Proposed Regulations. Congress did not give clear congressional authorization to Treasury to require reporting from DeFi entities or non-custodial wallet software developers. Congress certainly did not do so in a definitional provision, especially when it considered and rejected the very definition that Treasury now seeks to impose. *See West Virginia*, 142 S. Ct. at 2613. If enacted, the Major Questions Doctrine would require vacatur of the Proposed Regulations' application to DeFi participants.

B. The Proposed Regulations are contrary to constitutional right.

The Proposed Regulations are also "contrary to constitutional right." 5 U.S.C. § 706(2)(B). The Proposed Regulations raise at least three significant constitutional issues: violations under the First, Fourth, and Fifth Amendments.

First, the Proposed Regulations violate the First Amendment right against compelled speech. The First Amendment protects the "right to speak and the right to refrain from speaking." *Wooley v. Maynard*, 430 U.S. 705, 713 (1977). "There is certainly some difference between compelled speech and compelled silence, but in the context of protected speech, the difference is without constitutional significance." *Riley v. Nat'l Fed'n of the Blind of N.C., Inc.*, 487 U.S. 781, 793 (1988). Computer code "must be viewed as expressive for First Amendment purposes." *Bernstein v. United States Dept. of Justice*, 176 F.3d 1132, 1141 (9th Cir. 1999); *see also Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 448 n.22 (2d Cir. 2001). Computer code is, therefore, "protected speech," and programmers have the right to determine for themselves "what *not* to say." *Riley*, 487 U.S. at 797. Content-based compelled speech is subject to strict scrutiny, *see id.* at 797–98, and so may only be upheld if it is narrowly tailored to obtain a compelling state interest, *see Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 662 (1994).

The Proposed Regulations compel speech from DeFi developers and non-custodial wallet software developers. The Proposed Regulations require these developers to include code in their products that would reveal customer data. *See supra* pp. 19-21. That is expressive speech, *see Bernstein*, 176 F.3d, at 1141, and it is expressive speech that goes to the very heart of DeFi as well as the ability to self-custody one's assets: *see supra* pp. 22-23. Compelling coders to write new language that violates that core principle is, in every sense of the term, viewpoint discrimination that violates the First Amendment. *See Members of City Council v. Taxpayers for Vincent*, 466 U.S. 789, 804 (1984).

The Proposed Regulations fail strict scrutiny. Even if tax reporting is a compelling state interest, the regulation is not narrowly tailored to achieve that end; compelling developers to write particular code is broader than imposing a reporting requirement on buyers and sellers of crypto products. Even if strict scrutiny did not apply, the Proposed Regulations would still violate the First Amendment because the breadth of the Proposed Regulations, which apply to *all* entities who have the capacity to influence a transaction, is not rationally related to the government's interest in collecting tax.

Second, the Proposed Regulations violate the Fourth Amendment. Government action violates the Fourth Amendment if it is (a) a search, and (b) is unreasonable. *See City of Los Angeles, Calif. v. Patel*, 576 U.S. 409, 419 (2015). A search under the Fourth Amendment occurs when the government invades a constitutionally protected privacy interest to gather information. *See Katz*

v. United States, 389 U.S. 347, 360–61 (1967) (Harlan, J., concurring). The reasonableness of a search is context-specific, but outside of the criminal context, the reasonableness inquiry examines whether the search is "sufficiently limited in scope, relevant in purpose, and specific in directive so that compliance will not be unreasonably burdensome." *See v. City of Seattle*, 387 U.S. 541, 544 (1967).

The Proposed Regulations violate the Fourth Amendment rights of both individual participants to a transaction *and* the third parties required by the Proposed Regulations to report information to the IRS.

As to the *participants of a transaction*, the Proposed Regulations invade a constitutionally protected privacy interest to gather information. The Proposed Regulations require participants to a transaction to give up their private information to a third party, and ultimately to the government. That's a search. *See, e.g.*, *Chandler v. Miller*, 520 U.S. 305, 313 (1997) (Fourth Amendment right against laws requiring people to report information to the government). And the information that must be disclosed requires linking personal identities to transactions that are the quintessential "privacies of life" entitled to protection. *See Carpenter v. United States*, 138 S. Ct. 2206, 2217 (2018). The reporting requirements include enough information for the government to identify addresses on a public ledger that would allow the government to access large quantities of data that date back years, and will continue into the future. The Fourth Amendment's protections are strongest when a search reveals not just isolated pieces of information, but a large quantity of information that can reveal information about a person's most intimate activities. *See Riley v. California*, 573 U.S. 373, 395 (2014).

While the Supreme Court has recognized that third-party reporting of tax information by a bank does not constitute a search, *see United States v. Miller*, 425 U.S. 435, 443 (1976), that was only because the parties to a transaction with a bank "voluntarily convey[]" their information, and thus lose their reasonable expectation of privacy. *Id.* at 442. But that's not the case for cryptocurrency users, who follow state-of-the-art protocols to protect privacy in transactions. Unlike transactions involving banks or financial institutions, for which third-party reporting may be constitutionally permissible, cryptocurrency users do not voluntarily convey their personal information to any third parties, and for DeFi users, there is no third-party at all with whom information could be shared. The Proposed Regulations do not ask for information *already conveyed*, but rather require parties to collect, and then disclose to the government, vast swaths of sensitive information.

The search of participants to a transaction is unreasonable. The Proposed Regulations do not allow the participants "an opportunity to obtain precompliance review before a neutral decisionmaker." *City of Los Angeles, Calif. v. Patel*, 576 U.S. 409, 420 (2015). The Proposed Regulations are devoid of any tailoring at all and apply whether or not the government has any suspicion that the participants are evading IRS regulations. The Proposed Regulations' dragnet approach may aid the IRS in its mission, but "no Fourth Amendment precedent countenances this expedient"; the "test of reasonableness is not whether an investigative practice maximizes law enforcement efficacy." *Airbnb, Inc. v. City of New York*, 373 F. Supp. 3d 467, 492 (S.D.N.Y. 2019).

As to the *third parties* who must collect, and then report, vast quantities of information, the Proposed Regulations also constitute an unconstitutional search. The Proposed Regulations require third parties to collect and turn over to the government vast amounts of information. That is a search, as the Ninth Circuit explained in a case striking down an ordinance requiring hotels to report information about its guests: "The business records covered by [the challenged ordinance] are the hotel's private property, and the hotel therefore has both a possessory and an

ownership interest in the records. By virtue of those property-based interests, the hotel has the right to exclude others from prying into the contents of its records, which is also the source of its expectation of privacy in the records." *Patel v. City of Los Angeles*, 738 F.3d 1058, 1061 (9th Cir. 2013) (en banc), *aff'd*, 576 U.S. 409 (2015); *see also Airbnb, Inc. v. City of New York*, 373 F. Supp. 3d 467, 484 (S.D.N.Y. 2019) (Fourth Amendment protects companies' privacy interest in data as to their users).

Like those of participants, these searches of third parties would also be unreasonable. Third parties have no opportunity to obtain precompliance review before a neutral decisionmaker. *Patel*, 576 U.S. at 420. The Proposed Regulations are not tailored at all to particular types of transactions or types of entities that raise suspicion. *Airbnb*, 373 F. Supp. 3d at 492. Further, the universality of the Proposed Regulations' production demand (covering *all* transactions involving digital assets, with no de minimis requirement), the sheer volume of records implicated, and the Proposed Regulations' infinite time horizon "all disfavor the [Regulations] when evaluated for reasonableness under the Fourth Amendment." *Airbnb*, 373 F. Supp. 3d at 491.

Third, the Proposed Regulations violate the Fifth Amendment's Due Process Clause. The Due Process Clause requires that Treasury "give fair notice of conduct that is forbidden" and establish adequate standards to prevent "seriously discriminatory enforcement." *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012); *see also Johnson v. United States*, 576 U.S. 591, 602 (2015) (while "[e]ach of [a provision's] uncertainties … may [have] be[en] tolerable in isolation, … their sum ma[de] a task … which at best could be only guesswork"). A regulation that "requires the doing of an act" (like the reporting requirements proposed here) "in terms so vague that [persons] of common intelligence must necessarily guess at its meaning and differ as to its application violates the first essential of due process of law." *Connally v. Gen. Const. Co.*, 269 U.S. 385, 391 (1926).

The Proposed Regulations require regulated parties to "necessarily guess at its meaning." *Id.* Through the cascading definitions of broker, effect, and digital asset middleman, the Proposed Regulations require a regulated party to report if the person "ordinarily would know or be in a position to know the identity of the party that makes the sale." Prop. Treas. Reg. § 1.6045-1(a)(21)(i). And then the Proposed Regulations define "position to know" to sweep in a person who has "the ability" to require parties to provide their time, address, and taxpayer identification number upon request. *Id.* § (21)(ii). That definition does not give fair notice to regulated parties, and the Proposed Regulations do not offer any outer bounds to what it means to have the ability to require information—and indeed provide that some parties are deemed to have that ability when they do not, as discussed above. And this vagueness problem is heightened in this case because the Proposed Regulations compel speech. *Cmty. for Creative Non-Violence v. Turner*, 893 F.2d 1387, 1395 (D.C. Cir. 1990) (due process clause "applies with particular force in review of laws dealing with speech").

These due process concerns are heightened by the unreasonably short timeline for regulated parties to comment on the Proposed Regulations and by the unreasonably short timeline by which the Proposed Regulations will take effect. *See supra* pp. 3–4.

C. Treasury has not supported the Proposed Regulations with substantial evidence.

Treasury has not supported its Proposed Regulations with substantial evidence. The APA requires that an agency's findings and conclusions be supported by "substantial evidence," which requires a reviewing court to consider whether the record as a whole supports the agency's conclusions.

Universal Camera Corp. v. NLRB, 340 U.S. 474 (1951). An agency fails substantial evidence review if it ignores evidence that undercuts its judgment or discounts evidence without adequate explanation. *See Morall v. DEA*, 412 F.3d 165, 179-80 (D.C. Cir. 2005). The Proposed Regulations lack substantial evidence as to both the Proposed Regulations' benefits and costs.

Treasury's analysis is flawed from the start because it fails to accurately quantify any "tax gap" resulting from digital asset transactions. Treasury hypothesizes that digital assets "create[] a significant risk to tax administration," 88 Fed. Reg. 59,580, but Treasury does not attempt to quantify the tax gap. Nor does Treasury quantify the tax benefits that might result from enacting the reporting requirements.

Treasury's analysis about the burden on regulated parties is also flawed. Treasury estimates that the average party will incur an annual "425 hours of time burden" to comply with the regulations. 88 Fed. Reg. 59,619. That estimate significantly undercounts the burden on centralized entities, which as described above, will have to undertake much more significant efforts (and incur much more significant costs) to comply. The Proposed Regulations also fail to grapple with the result of the Proposed Regulations that DeFi developers will either shut down or quit serving the United States market because they can't reengineer their products to comply, because they do not want to suffer the First Amendment compelled speech injuries, or because their customers might simply stop using digital assets to avoid revealing sensitive personal information. As for non-custodial wallet software developers, the same concerns apply. The Proposed Regulations fail to consider the cost of developers of such software needing to fundamentally change their software in order to comply with the regulations or cease providing non-custodial wallet software altogether in the U.S. The Proposed Regulations purport to calculate the average and aggregate start-up costs for compliance, but fail to grapple with the effect that those costs will have on small entities, for whom the cost of compliance would likely be prohibitive.

Treasury's burden analysis is also flawed because it fails to consider the overlapping reporting requirements imposed on digital asset entities from various regimes. For instance, Treasury fails to analyze the benefits to a reporting regime that aligns with the Crypto Asset Reporting Framework (CARF) that govern parties in the European Union. Overlapping and inconsistent reporting requirements are an additional burden on regulated parties, but the Proposed Regulations fail to quantify that burden, or the corresponding benefits of aligning U.S. regulations with CARF.

Treasury also has not considered the administrative burden to regulated parties and to the agency that will result from the failure to exempt *de minimis* transactions – resulting in potentially billions of filings, including duplicative filings by numerous purported "brokers" that act within the same value chain of a given transaction, such as service providers, DeFi providers, tokenholders, developers, liquidity providers, and others. *See supra* pp. 16–17.

D. The Proposed Regulations are arbitrary and capricious.

The APA requires a reviewing court to set aside agency action that is "arbitrary [or] capricious." 5 U.S.C. § 706(2)(A). This provision of the APA requires agencies to treat like cases alike. *Westar Energy, Inc. v. FERC*, 473 F.3d 1239, 1241 (D.C. Cir. 2007) ("A fundamental norm of administrative procedure requires an agency to treat like cases alike."); *see also Grayscale*, 2023 WL 5536704, at *3.

In addition to the distorted cascading definitions that lead the IRS to classify entities as "brokers" that perform no function as a broker, *see supra* pp. 5–7, the Proposed Regulations violate this requirement because, in this tax context, they treat traditional finance and decentralized finance differently without justification. By way of example, the Proposed Regulations:

- Require reporting for broker-to-broker transactions, which is not a requirement for traditional finance, *see supra* pp. 17–18;

- Define broker in the decentralized context as one who "stands ready" to perform certain functions, while defining broker as one who "regularly acts as a middleman" in the traditional finance context, *see supra* p. 5.

- Require reporting of information far beyond what traditional finance brokers must require, including timestamps down to the second, *see supra* pp. 17–18.

- Require decentralized finance entities to track down non-covered assets that traditional finance entities do not have to, see supra p. 18.

These disparities are emblematic of the Proposed Regulations' differential treatment of traditional and decentralized finance. That broader problem – the failure to treat like issues alike – is definitionally arbitrary and capricious.

Further, the vagueness problems identified above also require that the Proposed Regulations, if passed in current form, be set aside under the APA. "[A]n agency's exercise of its statutory authority [must] be reasonable and reasonably explained." *Mfrs. Ry. Co. v. Surface Transp. Bd.*, 676 F.3d 1094, 109 (D.C. Cir. 2012). "[C]ryptic" explanations that "ha[ve] no content" or "offer[] no meaningful guidance" must be set aside. *USPS v. Postal Regulatory Comm'n*, 785 F.3d 740, 754 (D.C. Cir. 2015); *see also, e.g.*, *Tripoli Rocketry Ass'n v. BATF*, 437 F.3d 75, 81 (D.C. Cir. 2006). The Proposed Regulations offer "no meaningful guidance" to regulated parties about whether they are or are not subject to the Proposed Regulations' onerous reporting requirements and thus fail the APA's "requirement of reasoned decision making." *USPS*, 785 F.3d at 754.

VIII. CONCLUSION

For the reasons set forth above, the Proposed Regulations introduce overly burdensome or truly impossible requirements for numerous participants. We hope that our comments will help highlight why the Proposed Regulations, as currently drafted, cannot function appropriately. Moreover, the timeline afforded to those who are properly subject to the broker reporting regime must be extended to account for the significant lead time that will be required to build out the requisite systems. We encourage Treasury and the IRS to reconsider certain aspects of the Proposed Regulations and re-propose rules that would better account for practical considerations in the digital asset ecosystem, with ample time for implementation for those ultimately impacted.

* * * * *

We appreciate the opportunity to comment on these regulations and would be happy to discuss further any of the issues discussed here.

Respectfully submitted,

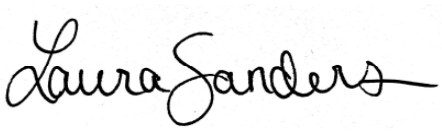

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EXHIBIT A

SEC. _____. ENHANCEMENT OF INFORMATION REPORTING FOR BROKERS AND DIGITAL ASSETS.

(a) EXPANSION OF DEFINITION OF BROKER.—Section 6045(c)(1) of the Internal Revenue Code of 1986 is amended—

(1) by striking ''and'' at the end of subparagraph (B),

(2) in subparagraph (C)—

(A) by striking ''any other person who (for a consideration)'' and inserting ''any person who (for consideration)'', and

(B) by striking the period at the end and inserting '', and'', and

(3) by inserting after subparagraph (C) the following new subparagraph:

''(D) any person who (for consideration) regularly provides any service responsible for effectuating transfers of digital assets, including any decentralized exchange or peer-to-peer marketplace.''.

(b) REPORTING OF DIGITAL ASSETS.—

(1) BROKERS.—

(A) TREATMENT AS SPECIFIED SECURITY.—Section 6045(g)(3)(B) of the Internal

Revenue Code of 1986 is amended by striking ''and'' at the end of clause (iii), by redesignating clause (iv) as clause (v), and by inserting after clause (iii) the following new clause:

''(iv) any digital asset, and''.

(B) DEFINITION OF DIGITAL ASSET.—Section 6045(g)(3) of such Code is amended by adding at the end the following new subparagraph:

''(D) DIGITAL ASSET.—Except as otherwise provided by the Secretary, the term 'digital asset' means any digital representation of value which is recorded on a cryptographically secured distributed ledger or any similar technology as specified by the Secretary.''.

(C) APPLICABLE DATE.—Section 6045(g)(3)(C) of such Code is amended—

(i) in clause (ii), by striking ''and'' at the end,

(ii) by redesignating clause (iii) as clause (iv), and

(iii) by inserting after clause (ii) the following:

"(iii) January 1, 2023, in the case of any specified security which is a digital asset, and".

(2) FURNISHING OF INFORMATION.—

(A) IN GENERAL.—Section 6045A of such Code is amended—

(i) in subsection (a), by striking "a security which is", and

(ii) by adding at the end the following:

"(d) RETURN REQUIREMENT FOR CERTAIN TRANSFERS OF DIGITAL ASSETS NOT OTHERWISE SUBJECT TO REPORTING.—Any broker, with respect to any transfer of a covered security which is a digital asset during any calendar year and with respect to which such broker is not otherwise required to furnish a return under section 6045 or a written statement under subsection (a), shall make a return for such calendar year, in accordance with such regulations as the Secretary may prescribe, showing the information otherwise required to be furnished under subsection (a).".

(B) REPORTING PENALTIES.—Section 6724(d)(1)(B) of such Code is amended by striking "or" at the end of clause (xxv), by striking "and" at the end of clause (xxvi), and

by inserting after clause (xxvi) the following new clause:

"(xxvii) section 6045A(d) (relating to returns for certain digital assets),".

(3) TREATMENT AS CASH FOR PURPOSES OF SECTION 6050I.—Section 6050I(d) of such Code is amended by striking "and" at the end of paragraph (1), by striking the period at the end of paragraph (2) and inserting ", and", and by inserting after paragraph (2) the following new paragraph:

"(3) any digital asset (as defined in section 6045(g)(3)(D)).".

(c) RULE OF CONSTRUCTION.—Nothing in this section or the amendments made by this section shall be construed to create any inference with respect to whether any digital asset is property which is a specified security under section 6045(g)(3)(B) of the Internal Revenue Code of 1986 for any period prior to the effective date of such amendments.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to returns required to be filed, and statements required to be furnished, after December 31, 2023.

Exhibit 2

DeFi Education Fund

November 7, 2023

Submitted via the Federal eRulemaking Portal at www.regulations.gov

Internal Revenue Service
Attn: CC:PA:LPD:PR (REG–122793–19)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Re: Comment on the Proposed Rule on Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, REG-122793-19

The DeFi Education Fund (**DEF**) submits this comment letter in response to the digital assets broker reporting regulations proposed by the Internal Revenue Service (IRS) on August 29, 2023, docket number REG-122793-19 (the **Proposed Regulations**).[1] If finalized in their current form, the Proposed Regulations would stretch the definition of "broker" beyond what section 6045(c)(1)(D) contemplates or the Constitution allows,[2] require information collection and reporting by individuals and entities incapable of collecting that information, unnecessarily endanger the personal data of millions of Americans, confuse taxpayers, stress government resources, stifle innovation, and cripple American businesses and competitiveness.

By way of background, DEF is a non-partisan research and advocacy group. Our mission is to educate lawmakers about the technical workings and benefits of decentralized finance (**DeFi**), achieve regulatory clarity for the future of the global digital economy, and advocate for individual users and developers in the DeFi space. This letter addresses transactions effected through a self-hosted wallet, even if those transactions are predominantly nonfinancial like buying a collectible nonfungible token (**NFT**). DeFi has immense potential to advance innovation

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[1] 88 Fed. Reg. 59576.

[2] Except as otherwise specified, all section references herein are to the Internal Revenue Code and to proposed and final regulations thereunder.

in the world economy, and we believe that potential can best be realized only in conjunction with smart policy.

The Proposed Regulations interpret the term "broker" to include "digital asset middleman," a vague and expansive category of market participants that bears little resemblance to the persons historically considered brokers and required to report under section 6045. Part I explains why the digital asset middleman category stretches the statutory language beyond its breaking point in direct contravention of the relevant legislative history.

Part II illustrates the result of the Proposed Regulations' extra-statutory interpretation of "broker": a definition of "digital asset middleman" that is both so vague and overbroad as to be impossible to apply or administer.

Part III explains why the Proposed Regulations, if finalized in their current form, would increase rather than reduce taxpayer confusion.

Parts IV and V explain why the Proposed Regulations violate the Fourth Amendment's prohibition on warrantless searches and seizures and are void for vagueness under the due process clause of the Fifth Amendment.

Parts VI and VII explain that the Proposed Regulations would impose an undue financial burden on the IRS and market participants.

The Proposed Regulations' concept of digital asset middleman appears to be predicated on a misconception that the DeFi technology stack (technologies that are stacked together to build an application) includes identifiable "platform operators" who are closely analogous to traditional brokers and are in a position to collect customer information but choose not to.[3] Part VIII offers a plain-English explanation of the entire technology stack involved in the execution and transmission of a typical DeFi transaction to illustrate the impossibility of applying the "digital asset middleman" concept in practice and how overreaching it would be based on the preamble to the Proposed Regulations (the **Preamble**).

Part IX requests a delay in the effective date of the Proposed Regulations insofar as they apply to digital asset middlemen, assuming the IRS still plans to finalize them in their current form in spite of the more than 100,000 comments it has received to date.

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[3] *See* Preamble, Explanation of Provisions, Part I.B. ("The Treasury Department and the IRS expect that this clarified proposed definition will ultimately require operators of some platforms generally referred to as decentralized exchanges to collect customer information and report sales information about their customers, if those operators otherwise qualify as brokers. This decision was made because the reasons for requiring information reporting on dispositions of digital assets do not depend on the manner by which a business operating a platform effects customers' transactions.").

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I. The Proposed Regulations adopt an extra-statutory definition of "broker"

The Proposed Regulations would, if finalized, exceed the statutory authority Congress has granted to the Treasury and the IRS by expanding the concept of "broker" beyond any reasonable interpretation of section 6045(c)(1)(D).

A. The legislative history does not support the new definition of "broker"

The concept of "broker" for tax purposes has a long history. Since 1917, Congress has authorized the IRS and its predecessor to request information returns from brokers on Form 1099.[4] For as long as that authorization has existed, brokers subject to IRS reporting requirements have always been limited to persons doing business as brokers on regulated centralized marketplaces,[5] or, beginning in 1983, acting for customers in a trade or business in one of two roles:

- Agent (*i.e.*, custodians or persons directing payments on behalf of customers), if they ordinarily would know the gross proceeds from the sale; or
- Principal (*i.e.*, persons providing liquidity to the market).[6]

When Congress amended the definition of "broker" in 2021 to include "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person,"[7] it expressed a clear desire for the language to be interpreted in a manner consistent with the traditional understanding of "broker."

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[4] *See generally* Joseph Thorndike, *Wall Street, Washington, and the Business of Information Reporting*, Tax Notes (Feb. 13, 2006), https://www.taxnotes.com/tax-history-project/wall-street-washington-and-business-information-reporting/2006/02/14/y014.

[5] *See* Revenue Act of 1917, P.L. 65-50, section 1211, https://babel.hathitrust.org/cgi/pt?id=iau.31858047996222&seq=86/ (defining "broker" as a person "doing business as a broker on any exchange or board of trade or other similar place of business").

[6] T.D. 7873 (1983) (adopting current regulatory definition of "broker," which explicitly limits brokers to (1) agents who ordinarily would know the gross proceeds from the sale and (2) principals).

Proposed Regulations section 1.6045-1(a)(10)(i)(B) would clarify that a person who acts as a principal to a sale would be treated as "effecting" the sale only to the extent they are acting as a broker.

[7] Section 6045(c)(1)(D).

First, a colloquy from the Senate Floor relating to section 6045(c)(1)(D) (the **Colloquy**),[8] which the Treasury has explicitly recognized as legislative history,[9] specifically instructs the Treasury not to interpret the new provision to apply to persons other than "brokers." In light of the over 100-year-old history of legislative and regulatory interpretation of the term "broker," it would stretch credulity to conclude Congress used "brokers" in that context to mean persons other than those acting for customers as agents or principals.[10]

Second, Congress used the word "effectuate" in the text of section 6045(c)(1)(D). "Effectuate" is synonymous with "effect," the operative verb that has appeared in the regulatory definition of "broker" since 1983.[11] The plain meaning of both words is "to cause" or "to bring about,"[12] such that a close causal relationship is a precondition to broker treatment under the statute.[13]

Thus, the legislative history and statutory text establish that "providing any service effectuating transfers" under section 6045 does not—and never did—include the following:

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[8] *See Colloquy Among Senators Mark Warner and Rob Portman* (Aug. 9, 2021), https://www.warner.senate.gov/public/index.cfm/2021/8/on-senate-floor-warner-portman-conduct-colloquy-clarifying-cryptocurrency-provision-in-infrastructure-investment-jobs-act.

[9] *See* Letter by Jonathan C. Davidson, Assistant Secretary for Legislative Affairs, to Senators Portman, Warner, Crapo, Toomey, and Lummis (Feb. 11, 2022), https://www.stradley.com/-/media/files/publications/2022/02/crypto-davidsonletter.pdf?la=en&rev=b70305b1549241499395d19f03d4b32e&hash=72BF0360EABE4BC8EACCB8198F51371C ("This colloquy constitutes part of the legislative history of the…amendment to the definition of 'broker' in section 6045(c). The Treasury Department is considering these statements as part of the development of a notice of proposed rulemaking.").

[10] *See also* Joint Committee on Taxation, *Technical Explanation of Section 80603, "Information Reporting for Brokers and Digital Assets," of the Infrastructure Investment and Jobs Act*, at 5 (Aug. 2021), https://www.jct.gov/CMSPages/GetFile.aspx?guid=26e36c6d-3f46-4ac8-aa8b-f9975a4c7692 ("The change *clarifies present law* to resolve uncertainty over whether certain market participants are brokers.") (emphasis added).

[11] *See* regs. section 1.6045-1(a)(1) ("The term broker means any person…that, in the ordinary course of a trade or business during the calendar year, stands ready to effect sales to be made by others.").

[12] *See Effect*, Merriam-Webster Online, https://www.merriam-webster.com/dictionary/effect#dictionary-entry-2; *Effectuate*, Merriam-Webster Online, https://www.merriam-webster.com/dictionary/effectuate.

[13] *See Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983) ("effect" requires "a reasonably close causal relationship").

- Providing information that helps others effectuate transactions, such as Google, Yahoo! Finance, or Wikipedia (which we refer to as *informational services*);[14]
- Impartially transmitting information that might include requests to effectuate transactions, such as FedEx, Gmail, or an internet service provider (which we refer to as *information transmission services*);[15] or
- Providing forums in which others might effectuate transactions, such as stock exchanges, online peer-to-peer marketplaces, or flea markets (which we refer to as *marketplace availability services*).[16]

The Treasury itself has acknowledged the import of the legislative history. In February 2022, in an open letter (the **Treasury Letter**) to several Senators regarding section 6045(c)(1)(D), the Treasury acknowledged that Congress did not intend to fundamentally change the meaning of the term "broker" by expanding Form 1099 reporting to digital assets.[17] The Treasury Letter explicitly assures the Senators that any regulations proposed under section 6045(c)(1)(D) "will be based on principles broadly similar to those applicable under current law for broker reporting on securities transactions," and confirms that "ancillary parties who cannot get access to information that is useful to the IRS are not intended to be captured by the reporting requirements for brokers."

Notwithstanding the plain language of the statute, the Colloquy, and its own acknowledgement in the Treasury Letter, the IRS would rewrite the historical definition of "broker" to include persons who are neither agents nor principals and cannot obtain identifying information from users except, possibly, by dramatically altering their businesses. More specifically, the Proposed Regulations introduce a brand-new category of broker, called "digital asset middleman," which they define as any person who (1) provides a "facilitative service" and (2) "ordinarily would know or be in a position to know" the identity of the party that makes a

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[14] *See, e.g.*, regs. section 1.6045-1(b), Example 2(i) (transfer agents who provide recordkeeping for stock transfers generally are not brokers). *But see* proposed regs. section 1.6045-1(a)(21)(iii)(A) (facilitative services include "providing services to discover the most competitive buy and sell prices").

[15] *See, e.g.*, regs. section 1.6045-1(b), Example 2(iv) (escrow agents that transfer assets "incidental to the purpose of the escrow" generally are not brokers). *But see* proposed regs. section 1.6045-1(a)(21)(iii)(A) (facilitative services include "providing a party in the sale with access to an automatically executing contract or protocol" and "providing access to digital asset trading platforms").

[16] *See, e.g.*, regs. section 1.6045-1(b), Example 2(ii) ("A person (such as a stock exchange) that merely provides facilities in which others effect sales" is not a broker). *But see* proposed regs. section 1.6045-1(a)(21)(iii)(A) (facilitative services include "providing an automated market maker system").

[17] *See* Treasury Letter, *supra* n.9.

sale and the nature of the transaction potentially giving rise to gross proceeds.[18] The new and expansive definition would push the IRS's jurisdiction far beyond what Congress authorized or envisioned.

B. The IRS's new definition of "broker" is impermissibly limitless in scope

The Proposed Regulations would rewrite the Internal Revenue Code by deputizing as brokers, for the first time in history and in contravention of Congress's stated intent, persons who (1) do not collect users' tax information as part of their business, (2) have no reason to collect tax information other than by reason of the Proposed Regulations, and (3) do not receive tax information voluntarily.

First, the Proposed Regulations define "facilitative service" to include "a service that directly or indirectly effectuates a sale of digital assets." Because the Proposed Regulations do not offer any clarity on the outer bounds of "indirectly,"[19] the term "facilitative service" has no discernible limits. The laundry list of facilitative services in the Proposed Regulations appears to confirm the term's limitlessness by casting such a wide net as to include informational services,[20] information transmission services,[21] and marketplace availability services.[22]

Second, the Proposed Regulations provide that the "position to know" standard is satisfied if the person offering "facilitative services" has "the ability" to "request" a user's identifying information and to determine whether a transaction gives rise to gross proceeds.[23] Because everyone with an internet connection has "the ability" to "request" identifying information from everyone else with an internet connection, as well as "the ability" to inspect

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[18] Proposed regs. section 1.6045-1(a)(21).

[19] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[20] *Id.* ("providing services to discover the most competitive buy and sell prices").

[21] *Id.* ("providing a party in the sale with access to an automatically executing contract or protocol, providing access to digital asset trading platforms").

[22] *Id.* ("providing an automated market maker system").

[23] Proposed regs. section 1.6045-1(a)(21)(ii)(A) ("A person ordinarily would know or be in a position to know the identity of the party that makes the sale if that person maintains sufficient control or influence over the facilitative services provided to have the ability to set or change the terms under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request."); proposed regs. section 1.6045-1(a)(21)(ii)(B) ("A person ordinarily would know or be in a position to know the nature of the transaction potentially giving rise to gross proceeds from a sale if that person maintains sufficient control or influence over the facilitative services provided to have the ability to determine whether and the extent to which the transfer of digital assets involved in a transaction gives rise to gross proceeds").

the public blockchain and thereby determine whether a transaction gives rise to gross proceeds, the "position to know" standard is as boundless as the definition of "facilitative services." Moreover, under a *per se* rule, the Proposed Regulations automatically treat any "person with the ability to change the fees charged for facilitative services" as being in a position to know[24] so that virtually every for-profit business even tenuously involved in blockchain technology would be in a "position to know" and therefore be a broker under the Proposed Regulations.

While the Preamble suggests that the "position to know" standard is similar to the "ordinarily would know" standard applicable under the current broker reporting regulations,[25] no reasonable comparison of the two standards supports that view. The Proposed Regulations abandon an objective test in favor of an inquiry into whether a person has "the ability," under some set of hypothetical circumstances that might not exist in reality, to newly "request" information from third parties and assumes that the ability to request equates to the ability to obtain. This concept represents a dramatic departure from the traditional understanding of what a broker is. Historically, broker status has hinged on whether a person acted as a customer's agent or principal and *ordinarily would know* information about the customer that only those engaged in broker-like activities would know. By contrast, the Proposed Regulations would require anyone who provides *any* help with an on-chain transaction and *could theoretically* request and collect personal information to do just that—and to securely store and report the information—even if doing so would fundamentally change their business model, be prohibitively expensive, or have a ruinous effect on the goodwill of users of their products.

It is unclear, for example, why Google's search engine is not a broker under the limitless scope of the Proposed Regulations. First, if a user searches for information on how to exchange a digital asset and Google provides instructions on how to do so, Google has "indirectly" effectuated the exchange and therefore provided "facilitative services." Second, because Google has "the ability" to "request" a user's identifying information and to determine whether the user's on-chain transaction occurs and gives rise to gross proceeds, Google is in a "position to know" the user's identity and whether and the extent to which the user's transfer of digital assets gives rise to gross proceeds. Moreover, because Google has "the ability to change the fees charged" for its facilitative services, either by changing its ad revenue model or by pay-walling its search engine, Google is in a "position to know" under the Proposed Regulations' *per se* rule. Clearly, Google never would be treated as a broker under current law, yet it appears to be a broker under a plain reading of the Proposed Regulations.

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[24] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[25] *See* Preamble, Explanation of Provisions, Part I.B. ("This definition is similar to the definition in the existing regulations with respect to agents."); reg. section 1.6045-1(a)(10)(i).

Because the Proposed Regulations' interpretation of "broker" to include "digital asset middleman" is limitless in scope and manifestly contrary to the plain language of Section 6045(c)(1)(D), it is arbitrary and capricious under the Administrative Procedure Act.[26]

II. The category "digital asset middleman" is both vague and overbroad

The Proposed Regulations' definition of "digital asset middleman" is vague to the point of being unintelligible. What does it mean to "indirectly effectuate" a sale, or to provide "access to" smart contracts or protocols? What is a "platform" and what does it mean to provide "access to" one? What is a "system" and what does it mean to provide one? What are "services to discover the most competitive buy and sell prices"—do they include, for example, Google, CoinMarketCap, and CNN? These questions all relate just to the definition of "facilitative services" contained in regulations section 1.6045-1(a)(21)(iii)(A). The definition of "position to know" and the examples relating to "digital asset middleman" raise a multitude of additional questions, as further discussed in Part VIII.

Further, the definition is overbroad. Any attempt to construe "digital asset middleman" in a practical manner, taking into account statements made in the Preamble, inexorably leads to the conclusion that the Proposed Regulations could treat *every* participant in the blockchain technology stack as a broker.

In an effort to illustrate these dual problems, while potentially paving the way for a more productive dialogue with the Treasury and the IRS in the future, Part VIII describes the execution of a typical DeFi transaction from start to finish, from the perspective of a user, and comments on why each participant in the technology stack is not a broker under any historical, reasonable, or commonly understood interpretation of the term.

As Part VIII explains, broadly, there are three phases of a DeFi transaction. During the information creation phase, a user interacts with *informational services* (similar to Google, Yahoo! Finance, and Wikipedia) to build a transaction instruction. During the information transmission phase, the user directs *information transmission services* (similar to FedEx, Gmail, or internet service providers) to impartially transfer the transaction instruction to validators for inclusion on-chain. During the state change phase, a transaction is settled in accordance with the user's instruction and software deployed and governed by *marketplace availability services* (similar to stock exchanges, online peer-to-peer marketplaces, or flea markets).

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[26] *See Chevron USA Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 844 (1984) ("legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute").

The Proposed Regulations would apply to virtually every participant in the tech stack, as well as to any other technology providers who "indirectly" enable people to send messages over the internet (*e.g.*, browsers, internet service providers, and smartphone manufacturers), because the meaning of "indirectly effectuating" has no limits. As a result, the Proposed Regulations directly contradict the plain language of the statute and legislative history by treating, as brokers, providers of *informational services*, *information transmission services*, and *marketplace availability services* who, in each case, either cannot easily or cannot realistically obtain information from users.

Engaging with the details of how the DeFi space and DeFi users operate makes these points clear. Self-custodied digital assets are the online equivalent of physical cash and collectibles, and the technology stack participants described in Part VIII do not "cause" or "bring about" transfers of digital assets any more than physical banner printers, ticker tape publishers, courier services, or flea market operators "cause" or "bring about" transfers of physical cash and collectibles. As the Preamble itself recognizes, "*only* the user of an unhosted wallet has access to both the public and private keys *necessary* to effect transactions in the digital assets associated with those keys."[27] The purpose of the Internal Revenue Code's broker reporting requirements is not to compel the creation of otherwise absent intermediaries by coercing developers and users of software to upend the way they interact, and the Proposed Regulations' attempt to do so contradicts both the plain language of the statute and constitutional limits.

III. The Proposed Regulations would increase taxpayer confusion

According to the Preamble, one of the rationales for creating a new and expansive information collection and reporting regime is to provide taxpayers with sufficient information to prepare their tax returns.[28] However, if finalized in their current form, the Proposed Regulations are likely to result in significant taxpayer confusion that would actually make it more difficult for taxpayers to prepare their tax returns.

First, because the Proposed Regulations do not treat digital asset brokers as exempt recipients, taxpayers would receive multiple Form 1099s for every transaction they effectuate. Accordingly, taxpayer income is likely to be significantly overreported.

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[27] Preamble, Background, Part I (emphasis added).

[28] *See* Preamble, Background, Part IV. ("[T]axpayers use information provided to them by brokers to prepare their tax returns. The lack of such information reporting for digital assets may make it difficult for taxpayers to properly track and report their gain or loss from dispositions of digital assets.").

Second, because there remain significant questions about the U.S. tax treatment of typical DeFi transactions, taxpayers are likely to receive incorrect or inconsistent information depending on how brokers interpret U.S. tax law. For example:

- **Wrapping.** "Wrapping" involves depositing one token (such as ETH) into a smart contract in exchange for a 1:1 pegged representation of the same token (such as wETH). DeFi users can wrap or unwrap a token by (1) interacting directly with the wrapping software, (2) exchanging the token for its wrapped counterpart on a decentralized exchange, or (3) engaging a transaction that automatically wraps or unwraps a token within a series of actions. Wrapping is very common in DeFi; as of November 2022, over 7% of all Ethereum transactions, or about 125 million transactions, involved wETH.[29] While most tax practitioners believe wrapping transactions are nontaxable because a token and its wrapped version are not materially different in kind or in extent,[30] because a token and its wrapped version are each digital assets within the meaning of the Proposed Regulations, brokers might report an exchange of a token for its wrapped token on Form 1099, resulting in overreporting.

- **Liquidity provision.** As discussed in Part VIII.C.2., the U.S. tax treatment of liquidity provision is unknown. Some brokers might report liquidity provision as a taxable exchange; others might report the underlying transactions as multiple taxable exchanges.

- **Token borrowing.** In a DeFi borrowing protocol, users who contribute tokens to a smart contract can "borrow" other tokens from the smart contract up to a percentage of the value of the tokens they contributed, and can reacquire tokens identical to the ones they contributed by replacing the borrowed tokens and paying a time-based usage fee.[31] The U.S. tax treatment of on-chain token borrowing is unknown. Under one theory, token borrowing is an exchange of one token for another, and therefore is a taxable exchange. Under an alternative theory, token borrowing is a deferred exchange of property for identical property and therefore is nontaxable under the same principles that led to the enactment

[29] *See* Stephen Tong, *Formally Verifying the World's Most Popular Smart Contract* (Nov. 18, 2022) ("As of block 15934960 (November 9, 2022), WETH has been in 125,581,756 transactions. This count includes all 'top-level' transactions which call the WETH contract at any point, including via an internal transaction."), https://www.zellic.io/blog/formal-verification-weth/.

[30] *See, e.g.*, Jason Schwartz, *Taxation of Decentralized Finance*, Tax Notes (Feb. 7, 2022), https://www.friedfrank.com/uploads/siteFiles/Publications/Schwartz%20%2802-07-2022%29.pdf.

[31] DeFi borrowing protocols are discussed in greater detail in Part VIII.C.2.

> of section 1058. The broker classification of many market participants could turn on the U.S. tax treatment of on-chain token borrowing. If on-chain borrowing triggers a tax event, front ends for DeFi borrowing protocols are likely to be brokers. If it is not, a further question arises as to whether a smart contract's liquidation of a borrower's collateral if its value falls below a specified threshold nevertheless causes the front end to be a broker.

The Preamble recognizes that the tax treatment of the above transactions remains uncertain, and requests comments on their treatment.[32] However, without official guidance from the IRS, tech stack participants and their tax counsel are likely to reach conflicting views as to whether they are brokers and which transactions are required to be reported, depending on how they believe the above transactions are treated for U.S. tax purposes.

Given that tax professionals at large internationally recognized law and accounting firms are unable to comfortably conclude how the most common DeFi transactions are treated for U.S. tax purposes, the average taxpayer will fare no better. Accordingly, the Treasury's suggestion that the Proposed Regulations would make it easier to prepare tax returns does not ring true. A far more likely outcome is that taxpayers (and the IRS) would be inundated with confusing and contradictory information.

IV. The Proposed Regulations violate the Fourth Amendment

If finalized in their current form, the Proposed Regulations would violate the Fourth Amendment's prohibition on warrantless searches and seizures of a person's papers and effects because users of "facilitative services" do not currently turn over the personal information brokers would be required to report, and providers of those "facilitative services" do not have any reason to collect that information.

The Fourth Amendment to the U.S. Constitution guarantees "the right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures." That guarantee is foundational in preserving the privacy and security of American citizens against arbitrary invasions by governmental authorities.

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[32] *See* Preamble, Explanation of Provisions, Part I.C. ("[T]hese proposed regulations do not specify whether a loan of digital assets is required to be reported. These proposed regulations also do not specifically address whether reporting is required for transactions involving the transfer of digital assets to and from a liquidity pool by a liquidity pool provider, or the wrapping and unwrapping of a digital asset, in light of the absence of guidance on those transactions. Comments are requested on whether the definition of sale or other parts of the regulations should be revised to address transactions not described in these proposed regulations.").

In *Katz v. United States*, the Supreme Court explained:

> What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.[33]

Thus, the government *can* constitutionally compel telephone companies to report phone numbers dialed by customers without a warrant because those customers "voluntarily convey" that information and the companies have a "legitimate business purpose" for collecting it.[34] However, the government *cannot* constitutionally compel telephone companies to turn over customer location data gleaned from cell phone tower connections, because "in no meaningful sense does the user voluntarily assume the risk of turning over a comprehensive dossier of his physical movements," and the companies do not need individualized customer location data to connect calls.[35]

When old rules meet new technology, courts must "assur[e] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted."[36] Blockchains enable users to transact on a peer-to-peer basis without relying on trusted intermediaries. The Proposed Regulations attempt to force those users into an intermediated regime without considering their constitutional right to privacy. Any assertion that users would voluntarily turn over their names, addresses, social security numbers, and other personal information to "digital asset middlemen" runs crosswise with the explicitly stated goal of the Proposed Regulations: to require "digital asset middlemen" to newly collect and report users' information when they were not already doing so.

Because individuals do not voluntarily turn over their personal data to "digital asset middlemen," and because those persons neither collect nor have any legitimate business reason to collect that information, the Proposed Regulations' requirement that "digital asset middlemen" collect and turn over that information without a warrant violates the Fourth Amendment.

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[33] 389 U.S. 347, 351 (1967).

[34] *Smith v. Maryland*, 442 U.S. 735, 743-45 (1979).

[35] *See Carpenter v. United States*, 138 S. Ct. 2206, 2220 (2018) ("[T]his case is not about 'using a phone' or a person's movement at a particular time. It is about a detailed chronicle of a person's physical presence compiled every day, every moment, over several years.").

[36] *Kyllo v. United States*, 533 U.S. 27, 34-35 (2001).

V. The Proposed Regulations violate the Fifth Amendment

The Proposed Regulations violate the Fifth Amendment because they are impermissibly vague. The Fifth Amendment prohibits the government from depriving any person of "life, liberty, or property, without due process of law." According to the Supreme Court, "[i]t is a basic principle of due process that an enactment is void for vagueness if its prohibitions are not clearly defined."[37]

The Proposed Regulations are unconstitutionally vague for two reasons. First, they are impossible to apply in practice, leaving software developers and other market participants to guess as to their meaning and application.[38] If a person of reasonable intelligence cannot figure out whether they would be subject to penalties for failing to file Form 1099s, they cannot plan accordingly and do not have fair warning of any penalties they might incur for noncompliance.[39]

Second, as discussed in Part II, the limitlessness of the Proposed Regulations' definition of "digital asset middleman" allows for arbitrary and discriminatory enforcement.[40] Based on the breadth of "facilitative services" and the "position to know" standard, the proposed broker definition would cover such far-flung market participants as internet browsers, internet service providers, and smartphone manufacturers. The Proposed Regulations thus would give the IRS unfettered discretion to wield its enforcement authority to decide what types of businesses survive or fail.

VI. The Proposed Regulations would unduly strain government resources

The Proposed Regulations are likely to put an unprecedented burden on the IRS. Based on the IRS's own recent estimate, the Proposed Regulations would result in at least 8 billion additional information returns annually.[41] That estimate is more than 551 times greater than the

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[37] *Grayned v. City of Rockford*, 408 U.S. 104, 108 (1972).

[38] *See Connally v. General Construction Co.*, 269 U.S. 385, 391 (1926) ("A statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to it application, violates the first essential of due process of law.").

[39] *Id.*; *see also United States v. Merriam*, 263 U.S. 179, 188 (1923) ("If the words are doubtful, the doubt must be resolved against the government and in favor of the taxpayer.").

[40] *See Grayned,* 408 U.S. at 108 ("[I]f arbitrary and discriminatory enforcement is to be prevented, laws must provide explicit standards for those who apply them. A vague law impermissibly delegates basic policy matters to policemen, judges, and juries for resolution on an ad hoc and subjective basis, with the attendant dangers of arbitrary and discriminatory application.").

[41] *See* Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp (reporting statements by Julie Foerster, IRS director of digital assets).

Preamble's estimate of 14.5 million additional information returns.[42] By comparison, the IRS processed only 3.2 billion *total* information returns in 2020.[43]

Even the IRS's own recent estimate is likely to be conservative if it does not include many persons the Proposed Regulations appear to treat as brokers, such as RPC node managers, layer 2 aggregators, block builders, smart contract deployers, liquidity providers, and holders of governance tokens (each of which is described in Part VIII), and it does not account for the likelihood that each transaction effected on-chain will be reported by multiple digital asset brokers. An estimate that includes those parties and allows for duplicative reporting could be multiple orders of magnitude greater than 8 billion.

The Preamble also fails to consider the costs to the IRS of the significant market outreach that it would be required to perform under the Proposed Regulations. As discussed in Part VIII, most of the persons who would be "digital asset middlemen" under the Proposed Regulations are leanly staffed financial technology firms. Even assuming these firms were capable of complying with the Proposed Regulations, the Treasury's cost estimates for implementing the Proposed Regulations must consider what additional resources it would have to expend on educating them as to how compliance might be possible.

As a threshold matter, we respectfully request that the IRS release for comment its revised analysis of the additional returns the Proposed Regulations would generate.

VII. The Proposed Regulations would impose a disproportionate and unbearable financial burden on businesses

The Treasury and the IRS have failed to fully consider and disclose the expected costs of the Proposed Regulations to so-called "digital asset middlemen."

As mentioned above, the Preamble estimates that the Proposed Regulations would generate an additional 14.5 million additional information returns annually.[44] On that basis, the Preamble estimates that the Proposed Regulations would impose an annualized cost on brokers of $136,350,000 in the aggregate, or $27,000 per broker, in each case disregarding startup costs. However, the IRS has recently revised its estimate of 14.5 million additional information returns

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[42] *See* Preamble, Special Analyses, Part II.

[43] IRS Statement, *Information Returns*, https://www.irs.gov/newsroom/irs-statement-information-returns (May 13, 2022).

[44] *See* Preamble, Special Analyses, Part II.

annually under the Proposed Regulations to 8 billion.[45] Based on the IRS's own expectation that each Form 1099-DA would cost $9.40 to generate,[46] the updated estimate of 8 billion new information returns annually means the Proposed Regulations would impose an annualized cost on brokers of approximately $75.2 billion in the aggregate, or $14.9 million per broker, in each case disregarding startup costs.[47]

In addition, whereas the Preamble estimates approximately 2.15 million aggregate hours of compliance costs, or 425 hours per broker (*i.e.*, 1,034 full-time jobs, assuming a 40-hour workweek),[48] the IRS's revised expectation that the Proposed Regulations would generate 8 billion new forms each year means the Proposed Regulations would impose approximately 1.2 billion aggregate hours of compliance costs, or 237,623 hours per broker.[49] That is the equivalent of nearly 600,000 new full-time jobs, assuming a 40-hour workweek.

Moreover, because the Preamble's cost and time estimates are "based on survey data collected from filers of similar information returns,"[50] whereas most of the persons treated as brokers under the Proposed Regulations' definition of "digital asset middleman" are leanly staffed financial technology firms without any preexisting infrastructure for requesting, collecting, storing, or reporting personal data, those estimates are likely to have been grossly optimistic. Accordingly, based on the IRS's own estimates, it is highly probable that, in many situations, the Proposed Regulations would impose insurmountable costs on market participants that deprive them of the ability to continue operating as going concerns.

VIII. No participants in the DeFi technology stack are brokers

This section examines the Proposed Regulations in the context of how DeFi protocols and market structure exist today. It is critical to note, however, that DeFi is a nascent technology

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[45] *See* Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp (reporting statements by Julie Foerster, IRS director of digital assets).

[46] *See* Preamble, Special Analyses, Part II (assuming 14.5 million Form 1099-DA recipients, 5,050 brokers, and $27,000 ongoing annual compliance costs per broker). 14.5 million forms ÷ 5,050 brokers = approximately 2,871 forms per broker. $27,000 annual compliance costs per broker ÷ 2,871 forms per broker = approximately $9.40 per form.

[47] 8 billion forms annually × $9.40 per form = $75.2 billion annualized costs. $75.2 billion annualized costs ÷ 5,050 brokers = $14,891,089 annualized costs per broker.

[48] *See* Preamble, Special Analyses, Part II (estimating 0.15 hours per form).

[49] 0.15 hours per form × 8 billion forms = 1.2 billion total hours. 1.2 billion total hours ÷ 5,050 brokers = 237,623 total hours per broker.

[50] Preamble, Special Analyses, Part II.

and market, having existed for only five years, and this section cannot be treated as an evergreen description and analysis of what is a rapidly evolving sector.

Attempting to apply the Proposed Regulations in practice to the current participants and technologies in DeFi clearly illustrates how vague and expansive the Proposed Regulations are. The technology stack is divided into three phases: (1) information creation; (2) information transmission; and (3) state change.

During the information creation phase, a user, often with the help of a front end and/or wallet application, generates a call function to effectuate a change to the state of the blockchain and packages the call function with a digital signature establishing their authority to effectuate the state change. Front end administrators and wallet application developers are not brokers because they are providers of *informational services* (similar to Google, Yahoo! Finance, and Wikipedia) who provide data in response to user inputs, and who can obtain personal information from users only by dramatically changing the way they do business.

During the information transmission phase, the call function and digital signature generated in the information creation phase are transmitted via an RPC node to a transaction pool. If the user is transacting on a blockchain's "base layer," or **layer 1**, block builders aggregate data from the transaction pool into block templates, and validators propose and settle those block templates to the blockchain in accordance with a consensus mechanism. If the user is transacting on a blockchain scaling solution (commonly called a **layer 2**), an analogous process first occurs on the layer 2 before the resulting data is submitted to the underlying blockchain's transaction pool. Remote procedure call nodes, block builders, validators, and layer 2 aggregators are not brokers because they are providers of *information transmission services* (similar to FedEx, Gmail, or internet service providers) who impartially transmit transaction data, and who cannot obtain personal information from users.

During the state change phase, the state of the blockchain changes in response to the settlement of a new block that includes a user's call function. If the call function implicates one or more smart contracts, those smart contracts automatically perform the operations they were coded to perform in response to the call function. Smart contract developers, liquidity providers, and protocol stewards are not brokers because they are providers of *marketplace availability services* (similar to stock exchanges, online peer-to-peer marketplaces, or flea markets) who provide forums in which users can transact, and who cannot obtain personal information from users.

A. Information creation phase

1. Front end administrators

a) Background on front end administrators

The vast majority of DeFi users interact with a front end, which is a user interface that makes it easier to interact with the relevant smart contracts. Smart contracts are self-executing pieces of code that live on a blockchain.

Front ends often are colloquially referred to as "websites," a term used in the Proposed Regulations. We use the term front end because it captures not only visual elements (i.e., the website) but also the code that powers interactive features like forms, buttons that trigger actions, and dynamic page updates without full page refreshes.

A DeFi front end typically serves two roles: browser and data object generator.

- In its browser role, the front end shows the user information about the state of the blockchain relating to a set of DeFi smart contracts and provides an intuitive user interface to indicate what actions they would like to perform through the smart contracts.

- In its data object generator role, the front end translates a user's input into a data object, i.e., a set of data with the necessary information to submit a transaction for inclusion on-chain. Typically, DeFi front ends with data object generators include a "connect wallet" button, which, when selected, establishes a secure connection between the front end and the user's crypto wallet. The data object generator uses that connection to send the data object to the user's wallet, which the user might or might not submit through their wallet for inclusion on-chain.

Crucially, a front end does not monitor whether a user will deploy a data object they received, just like an encyclopedia does not monitor whether a reader uses information they gleaned from its pages. Any deployment of a data object to the blockchain is done through the user's crypto wallet, without the front end's involvement.

Front end administrators for DeFi websites might receive trade-based fees or might instead receive periodic payments under a services agreement from a DeFi governance organization, like a foundation or decentralized autonomous organization (**DAO**), set up to steward the underlying smart contracts.[51] While a front-end administrator might collect data on

[51] Protocol governance is discussed in Part VIII.C.3.

protocol use (such as number of transactions and average transaction size) in setting their fees under their services agreement, the data is anonymized by blockchain technology, does not approach the level of specificity that would make it helpful in complying with the Proposed Regulations, and only tenuously reflects actual front end use, since some users access the relevant smart contracts directly or through different front ends.

Front end administrators for block explorers usually do not receive any remuneration from smart contracts or DeFi governance organizations, and instead profit from advertising revenues and donations. Block explorers are, primarily, visual interfaces for viewing and querying any of a blockchain's data. Most block explorers also act as data object generators, but require considerable sophistication to use.[52] Their administrators have no reason to collect information on who uses the front ends' data object generators.

b) Front end administrators are not brokers because they do not "effectuate transfers"

As explained above, a DeFi front end's data object generator translates user input into a data object that can be fed into a separate wallet application and then transmitted by the wallet for inclusion on-chain should the user decide to do so.[53] Generating a data object is an *informational service* like Google, Yahoo! Finance, or Wikipedia. In each case, the informational service's purpose is to generate and display information in response to user inputs; the provider of the informational service neither cares nor has any reason to care whether or how the user actually uses the information.

Neither the Proposed Regulations nor the Preamble sufficiently explain the point at which an informational service rises to the level of a "service effectuating transfers" within the meaning of section 6045(c)(1)(D). Instead, the Preamble enigmatically provides that the Proposed Regulations "will ultimately require operators of some platforms generally referred to as decentralized exchanges to collect customer information and report sales information about their customers."[54] While that is one of 138 appearances of the term "platform" in the Preamble and Proposed Regulations, the term is never defined.

The Proposed Regulations are similarly confounding. Under Proposed Regulations section 1.6045-1(b)(1), example 1(ix), a person generally is a broker if they are in a business of

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[52] *See, e.g.*, Fang Jun, *How to Interact with Smart Contracts*, Web3 University, https://www.web3.university/article/how-to-interact-with-smart-contracts (Feb 9, 2022) (describing how to "write" to Ethereum through block explorer Etherscan).

[53] Transmission is made through an RPC node, as described in Part VIII.B.1.

[54] Preamble, Explanation of Provisions, Part I.B.

operating a "website that stands ready to effect sales of digital assets for others…including by providing access to automatically executing contracts, protocols, or other software programs." As explained above, DeFi front ends never "provide access" to contracts, protocols, or other software programs—they generate data objects—so it is unclear what the IRS has in mind.

Even if DeFi front ends *did* provide access to smart contracts—which they don't—it is far from clear why front end administrators would be brokers. As both the current regulations and Proposed Regulations acknowledge, "a person (such as a stock exchange) that merely provides facilities in which others effect sales" is not a broker.[55]

If generating data objects constitutes standing ready to effect sales of digital assets for others, the Proposed Regulations leave it to market participants and their counsel to guess whether there are any limitations at all to "indirectly effectuating" a sale of digital assets. For example:

- Would any front end that posts data objects into a connected wallet be treated as providing a facilitative service, even if a typical user would need to consult a tutorial to determine how to coax the front end into posting the desired data object?[56] Would the tutorials themselves also be treated as facilitative services?
- Assume a front end dynamically generates a data object in response to a user's inputs but does not allow the user to connect their wallet to it, so that the user has to copy and paste the object into their wallet if they want to use it. Would the front end be treated as providing a facilitative service?
- Would a static front end that merely explains how to write a blockchain call function into a crypto wallet be treated as providing a facilitative service?

Without articulating a clear standard for "facilitative service," the Proposed Regulations do not provide taxpayers with sufficient notice as to whether they are brokers and, correspondingly, how they might avoid broker status.

c) Front end administrators are not brokers because they have no reason to know users' personal information

It is hard to overstate what a profound change the Proposed Regulations' practically unlimited "position to know" standard would require to the business models of front end

[55] Regs. section 1.6045-1(b) Ex. 2(ii); proposed regs. section 1.6045-1(b)(2) Ex. 2(ii).

[56] *See, e.g.*, Fang Jun, *How to Interact with Smart Contracts*, Web3 University, https://www.web3.university/article/how-to-interact-with-smart-contracts (Feb 9, 2022).

administrators who wish to continue to allow U.S. persons to access their front ends. Currently, even a mere techno-tinkerer can spin up a front end; ChatGPT can get even a complete Luddite most of the way there.[57] Deeming those persons to be brokers merely because, in theory, they *could* have built front ends that geoblock users who fail to provide identifying information is likely to require many of them to spend more resources requesting, collecting, managing, and securing information than they spend actually conducting their current business.

The Proposed Regulations also would expose innocent users to new and unnecessary cybersecurity risks. As the Preamble acknowledges, "digital asset brokers are not necessarily subject to the type of prudential or supervisory regulation" as brokers under current law.[58] Notwithstanding that acknowledgement, the Proposed Regulations deputize those persons to request, collect, and store taxpayers' names, social security numbers or other taxpayer identification numbers, and public blockchain addresses. While even well-meaning front end administrators are likely to fall victim to security breaches, a predictable effect of the finalization of the Proposed Regulations in their current form would be the proliferation of "spoof" front ends set up by nefarious actors to harvest users' personal data. A common tactic among scammers is to create front ends that imitate the official versions and link them to similar addresses (e.g., addresses that end with ".com" instead of ".io," or that replace one or more Latin letters with similar looking Cyrillic letters).[59] Users would have no reason to question a spoofed front end's request for their personal details if the IRS requires it.

The association of a public blockchain address with an individual's identity does not merely reveal mundane financial transactions; it also can provide a gateway into highly intimate life details, such as net worth, personal associations and preferences, and charitable contributions. Requiring persons who do not collect tax information as part of their business to set up systems to request and safely store those details thus jeopardizes the security of millions of Americans' personal data.[60]

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[57] For illustration, we urge personnel at the IRS to query ChatGPT-4 with a prompt such as: "Write me a front end for Uniswap that enables me to swap ETH for an equal amount of wrapped ETH."

[58] *See* Preamble, Explanation of Provisions, Part I.H.

[59] *See, e.g.*, Alex Scroxton, ComputerWeekly.com, *Rise in Fraudsters Spoofing the Websites of Leading UK Banks* (Aug. 7, 2023), https://www.computerweekly.com/news/366546952/Rise-in-fraudsters-spoofing-the-websites-of-leading-UK-banks.

[60] Coinbase estimates 50 million Americans currently own crypto. *See* Coinbase Blog, *New survey of 2,000+ American adults suggests 20% own crypto and the vast majority see an urgent need to update the financial system*, https://www.coinbase.com/blog/new-national-survey-of-2-000-american-adults-suggests-20-of-americans-own (Feb. 27, 2023).

2. Crypto wallet providers

a) Background on crypto wallet providers

Each pseudonymous blockchain address has an associated private key. Both the address and private key are long strings of alphanumeric characters. To send tokens or interact with a smart contract from a specific blockchain address, a DeFi user must produce a digital signature, which cryptographically proves that they know the associated private key without revealing the key to anyone else.

Crypto wallets are devices or software applications that (1) store a DeFi user's private keys; (2) enable the user to transact from their blockchain address by entering a memorable password or pin code into the wallet instead of their private key; and (3) generate a digital signature when required. Broadly, there are two types of crypto wallets: hardware wallets and software wallets.

(1) Hardware wallets

A hardware wallet stores a user's private key in a secure element isolated from the internet and the user's personal computer. Users unlock their hardware wallets by entering a password or pin code directly on the device. When a user wants to submit a transaction for inclusion on-chain, their hardware wallet generates a digital signature using the stored private key. The signature is then transmitted to a companion wallet application, typically via a USB connection or Bluetooth.

A wallet application is software that, like a DeFi front end, includes a browser role and a data object generator role. The browser offers an intuitive interface that allows users to view their balances, transaction histories, and other relevant information related to their crypto assets. The data object generator pairs a call function (e.g., the data object received from a DeFi front end) with the digital signature generated by the hardware wallet, then submits the package for inclusion on-chain.

Most hardware wallet providers publish their own wallet application software. However, users are not required to use that software and can use any wallet application with their hardware wallet.

(2) Software wallets

A software wallet stores the user's private key in a software file on a computer or mobile device instead of isolating it in a secure element, and includes a built-in wallet application. Users unlock their software wallets by entering a password or pin code directly into the wallet application. When a user wants to submit a transaction for inclusion on-chain, the application

generates a digital signature using the stored private key. It then pairs that digital signature with the relevant call function and transmits the package for inclusion on-chain.

The vast majority of crypto wallets do not charge fees for receiving data objects from front ends, packaging them with digital signatures, and transmitting them for inclusion on-chain. However, crypto wallet applications often integrate DeFi front-end application programming interfaces (**APIs**) to enhance the user experience,[61] and charge fees when users leverage the integration.

For example, many wallet applications contain a built-in token swap feature. When a DeFi user clicks an "in-wallet swap" button, the wallet application queries the APIs of several popular DeFi front ends, whose browser functions return information about the price of executing a token swap through the smart contract protocols they monitor. The wallet application's user interface displays the information it receives and offers the DeFi user the option of simply submitting a transaction using a data object transmitted by one of the queried APIs. If a user elects to effect their transaction without visiting the chosen front-end themselves, their wallet application typically debits from their funds a "licensing fee" for using the wallet provider's information aggregation software, in addition to any other transaction costs they incur in the transaction.

While a wallet developer might collect data on the frequency with which third-party APIs are called, the data is anonymized by blockchain technology and does not approach the level of specificity that would make it helpful in complying with the Proposed Regulations.

b) Crypto wallet providers are not brokers under any reasonable interpretation of the term

The application of the Proposed Regulations to crypto wallet providers shares the same deficiencies as those for front end administrators: lack of clarity and overbreadth.

Proposed Regulations section 1.6045-1(b) contains three examples relating to crypto wallet providers—examples 21-23. The examples suffer from a casual use of undefined terms and again leave taxpayers and their counsel unable to determine whether there are any limits to "indirectly effectuating" a sale.

[61] An API is a set of functions and procedures allowing access to the features or data of an operating system, application, or other service.

Under example 21, a hardware wallet developer is not a broker if users are required to use a third party's "connecting software."[62] Similarly, under example 23, a software wallet developer is not a broker if the wallet lacks "wallet connection services." The Proposed Regulations do not define "connecting software" or "wallet connection services," and the terms' meanings are not self-evident.

Adding confusion, the outcome in example 23 seems to turn on the assumption that users of the hypothetical software wallet "initiate" trades on a third-party "platform," which provides the wallet with "functionality" to execute a trade. As mentioned above, the term "platform" is used 138 times in the Preamble and Proposed Regulations (34 times in the Proposed Regulations alone), but is never defined. If "platform" means a front end, it cannot have "initiated" a trade; front ends generate data objects, and users of software wallets initiate trades through the associated wallet application, which does not need a front end to provide it with "functionality." Accordingly, the purpose and effect of example 33 is a mystery.

By contrast, under example 22, a software wallet developer *is* a broker if their wallet application integrates DeFi front-end APIs for token swaps to enhance the user experience.[63] (The example also assumes the developer "requests each user's name, address, and tax identification number," but, given the breadth of "position to know," it is unclear why that assumption is made.) Example 22 raises the question whether inclusion of an API integration results in a "cliff effect" that makes a wallet developer a broker for *all* transactions effected using that wallet, even for users who do not leverage the API integration.

Assuming the Proposed Regulations intend to treat a wallet application's data object generator as a facilitative service, that treatment is inappropriate for the exact same reasons articulated above for why treating a front end administrator as a broker is inappropriate. A wallet application's data object generator simply aggregates several front-end APIs, so it would be nonsensical to treat a wallet application as a broker if DeFi front ends are not brokers. The wallet application's imposition of a fee for users who opt not to visit the associated front ends themselves does not alter the analysis; providers of informational services do not have to be nonprofit organizations to avoid broker status.

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[62] *See also* proposed regs. section 1.6045-1(b), Ex. 2(x) ("a person solely engaged in the business of selling hardware or licensing software, the sole function of which is to permit a person to control private keys which are used for accessing digital assets on a distributed ledger, without providing other functions or services," is not a broker).

[63] The example describes the API integration as "a digital asset trading service…that compares pricing at several unrelated non-custodial trading platforms to facilitate access to the most competitive buy and sell prices offered by these unrelated platforms."

Moreover, as with front ends, the Proposed Regulations' expansive "position to know" standard would require wallet software developers to profoundly change their business models. Currently, most of those developers build wallets that employ a "freemium" model, whereby the core wallet software is free but licensing fees are charged if (1) the software queries DeFi front end APIs in response to user inputs and (2) the user deploys one of the data objects retrieved from the query. Deeming software developers to be brokers merely because, in theory, they *could* have built wallets that geoblock users who fail to provide identifying information is likely to require them to materially modify the way they do business if they wish to continue making their software available to U.S. persons. As in the case of front ends, it also would jeopardize the security of millions of Americans' personal data.

B. Information transmission phase

1. Remote procedure call (RPC) node managers

a) Background on RPC nodes and RPC node managers

RPC nodes are servers that, within the context of a transaction's order of operations, impartially relay information from a crypto wallet to a blockchain's transaction pool, or "mempool," which is a repository of pending transaction requests. RPC nodes also relay information about the state of the blockchain to front ends and wallet applications, often for a fee if the RPC node manager is a third party. RPC node managers may be third party service providers, wallet providers running their own RPC nodes, or hobbyists running their own RPC nodes.

Third-party RPC node managers who transmit data for wallet applications for a fee do not have contractual privity with the users of those wallet applications and thus have no way of determining those users' identities. Moreover, while RPC node managers theoretically have the ability to inspect the raw data submitted to them for transmission to a transaction pool, determining the intent and ultimate effect of that data would require a deep understanding of the technical details of each smart contract implicated by the data, and of the context within which the relevant raw data is being submitted. Considering that a blockchain typically hosts tens of millions of smart contracts,[64] each potentially with its own semantics, and that the

[64] For illustration, 4.6 million new smart contracts were deployed to Ethereum in the fourth quarter of 2022 alone. *See* Andrew Asmakov, DeCrypt, *Ethereum Smart Contracts Deployment Jumped 293% in 2022: Alchemy Developer Report* (Jan 17, 2023), https://decrypt.co/119371/ethereum-smart-contracts-deployment-jumped-293-2022-alchemy-developer-report.

effects of those contracts include tremendous variability,[65] RPC node managers generally cannot in practice track the effects of every data object they transmit on behalf of others.

b) RPC node managers are not brokers under any reasonable interpretation of the term

Neither the Proposed Regulations nor the Preamble mention RPC nodes, so it is unclear whether the Treasury and the IRS contemplated the potential application of the Proposed Regulations to them. However, the apparent breadth of the definition of facilitative services raises the possibility that mere *information transmission* is a facilitative service. If RPC node managers are treated as providing a facilitative service by virtue of transmitting call functions from a wallet application to a transaction pool, the Proposed Regulations' *per se* rule that treats someone with "the ability to change the fees charged for facilitative services" as being in a "position to know" would cause them to be brokers.

Treating RPC node managers as providing a "service effectuating transfers of digital assets on behalf of another person" within the meaning of section 6045(c)(1)(D) would be tantamount to treating courier services like FedEx, or email clients like Gmail, as providing a service effectuating transfers merely because someone might transmit purchase or sale requests through them. In each case, the information transmitter impartially relays information from a source to a destination in exchange for a fee that does not take the nature of the information into account. Moreover, in each case, the information transmitter has no business reason to know the identities of the senders or the nature of the information transmitted and, as a practical matter, are unlikely to be able to retrieve that information.

As discussed in Part VIII.B.3, the Proposed Regulations exclude validation services from the definition of facilitative services because validators "may not be in a position to know the identity of the parties making a sale and the nature of the transaction."[66] It would be internally inconsistent for the Proposed Regulations to exclude validators from the broker status but to include RPC node managers, who likewise are not in a position to know the identity of the parties making a sale and the nature of the transaction.

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[65] *See, e.g.*, Polygon Labs, *The Value Prop*, https://thevalueprop.io/database (open database of on-chain applications).

[66] Proposed regs. section 1.6045-1(a)(21)(iii)(A); Preamble, Explanation of Provisions, Part I.B.

2. Block builders

a) Background on block builders

In some blockchain networks, block builders organize blockchain order flow (e.g., transactions transmitted to a blockchain's transaction pool) into block templates. Block templates are blocks that have not yet been proposed by a validator and settled to a blockchain in accordance with its consensus mechanism. Validators might be block builders, or might outsource the block building role to specialists.

b) Block builders are not brokers under any reasonable interpretation of the term

Block builders perform a critical role in the transmission of information from a transaction pool to a blockchain. Treating them as brokers would directly violate both the Colloquy's imperative not to treat persons "who play a key role in validating transactions" as brokers[67] and the Treasury's own commitment not to treat "ancillary parties who cannot get access to information that is useful to the IRS" as brokers.[68]

Nevertheless, the absence of any clear limitation on "indirectly effectuating" a sale suggests that block builders provide facilitative services within the meaning of the Proposed Regulations. The possibility that block builders are brokers under the Proposed Regulations underscores just how unreasonably vague and overbroad the Proposed Regulations are as currently drafted.

3. Validators

a) Background on validators

In proof-of-stake networks like Ethereum and Solana, validators (in their block proposer roles) lock up, or "stake," a material amount of a blockchain's native token in a smart contract and run open-source validator software on their computers. The software selects validators at random to propose new block templates for inclusion on the blockchain. Of those validators not selected, the software selects several to vote on block proposals; those "attesters" generally must approve a proposed block if it does not contain falsified information like unsigned transactions.

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[67] *See* Colloquy ("We want to be sure that miners and stakers and others who play a key role in validating transactions now or in the future, or hardware and software sellers for digital wallets will not be subject to the rules for those activities. Again, you will need to provide the information reporting only if you are functioning as a broker.").

[68] *See* Treasury Letter.

Participating validators are rewarded for good behavior (i.e., proposing valid blocks and maintaining uptime) and risk having all or a portion of their stake destroyed if they misbehave. Rewards are credited to validators in the blockchain's native token. On the Ethereum blockchain, validator rewards consist of newly minted ETH and priority gas fees. Newly minted ETH represents the majority of the rewards. Priority gas fees are fees some users pay in excess of a mandatory "base fee" for faster inclusion in a block.

b) Validators are not brokers, even if they engage in block building, RPC node management, liquid staking, or similar arrangements

As mentioned above, the Colloquy explicitly cautions that persons "who play a key role in validating transactions" are not brokers. Presumably in response to that admonition, the Proposed Regulations exempt from the definition of facilitative services "validating distributed ledger transactions…without providing other functions or services if provided by a person solely engaged in the business of providing such validating services."[69] However, the Proposed Regulations do not define validating services, so it is unclear what it means to be "solely engaged in the business of providing such validating services." For example, are validators "solely engaged in the business of providing such validating services" if they also (1) run an RPC node, (2) build their own blocks instead of outsourcing that role to specialists, and/or (3) participate in liquid staking protocols?[70]

Moreover, although the validator exclusion appears in the Proposed Regulations' definition of facilitative services,[71] the Preamble justifies the exclusion by explaining that validators "may not be in a position to know the identity of the parties making a sale and the nature of the transaction."[72] That justification evidences the Treasury's determination that there *is* a limit to being in a "position to know." However, the Proposed Regulations do not articulate any such limit, and we are unable to discern a limit from the language of the Proposed Regulations. Moreover, it is not at all clear why validators are less likely to be in a "position to know" than the other participants in the technology stack described in Part VIII. We respectfully request that the Treasury articulate the contours of the "position to know" standard in a manner that enables it to be applied coherently by potentially affected parties.

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[69] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[70] RPC nodes, block builders, and liquid staking protocols are discussed in Part VIII.B.1., VIII.B.2., and VIII.C.2., respectively.

[71] *See* Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[72] Preamble, Explanation of Provisions, Part I.B.

4. Layer 2 aggregators

a) Background on layer 2s and layer 2 aggregators

A significant amount of DeFi is effected on "layer 2" blockchain technology. Very generally, a layer 2 is a protocol built on top of a blockchain that batches transactions off-chain, compresses them into a single summary transaction or cryptographic proof, and submits that summary transaction or proof to the blockchain at regular intervals. (In this context, the blockchain is the "layer 1.") Layer 2s enable faster transaction throughput and lower transaction costs while retaining the security of the related layer 1.

The technologies underlying layer 2 protocols vary significantly but always include an aggregator function.[73] Layer 2 aggregators are highly analogous to a blockchain's validators: they order transactions and transmit them to the underlying blockchain. Some layer 2s use a single aggregator or small group of "permissioned" aggregators. Others enable anyone to be an aggregator and employ a process closely analogous to a consensus mechanism to determine the order in which aggregators submit batched data to the blockchain.

b) Layer 2 aggregators are not brokers under any reasonable interpretation of the term

Neither the Proposed Regulations nor the Preamble mention layer 2 aggregators. However, as discussed above, layer 2 aggregators are highly analogous to blockchain validators and, like validators, are not in a position to know user identities.[74] Accordingly, layer 2 aggregators should be explicitly exempted from the definition of facilitative services.[75]

C. State change phase

1. Smart contract coders and deployers

a) Background on smart contracts

Once a block is validated and added to a blockchain, the blockchain's "virtual computer" executes the transactions within the block. That execution includes interactions with smart contracts. If a transaction modifies the state of a smart contract, those changes are reflected in the blockchain's state.

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[73] For layer 2 protocols that use "optimistic rollup" technology, the aggregator is referred to as the sequencer. For those that use zero knowledge proof technology, the aggregator is referred to as the proposer.

[74] *Cf.* proposed regs. section 1.6045-1(a)(21)(iii)(A).

[75] *See also* Colloquy ("validation methods, *now or in the future*, associated with other consensus mechanisms that are developed and *might come into the market as the technology evolves*") (emphasis added).

As mentioned above, smart contracts are self-executing pieces of code stored on-chain. Anyone can deploy a smart contract to a blockchain for a gas fee. Thus, it often is difficult to determine the identity of a particular smart contract's deployer, although smart contracts that form part of a DeFi protocol typically are deployed by a member of one of the development teams building the protocol.

Smart contracts generally are incapable of collecting and verifying tax information because they can react only to predefined inputs and, by default, can "see" only other information stored on-chain.

b) Smart contract coders and deployers are not brokers under any reasonable interpretation of the term

The Proposed Regulations include as an example of a facilitative service "providing an automated market maker system."[76] Because the Proposed Regulations do not define "system," the example raises the possibility that merely coding or deploying a smart contract to a blockchain, including one that figures into an automated market maker suite, could cause the coder or deployer to be a broker.

Smart contracts are on-chain marketplaces for peer-to-peer transactions. Treating people who code smart contracts or deploy them to a blockchain as brokers would be tantamount to treating stock exchanges, online peer-to-peer marketplaces, and flea market operators as brokers. Providers of such *marketplace availability services* have never been treated as brokers,[77] and it would be intellectually inconsistent to treat them as brokers merely because the relevant marketplace is on-chain. Moreover, smart contract coders and deployers currently have no practical way of determining the identities of the users of their software. Accordingly, treating smart contract coders or deployers as brokers would both contradict the Colloquy and impose an impracticable compliance requirement.

2. Liquidity providers

a) Background on liquidity provision

Liquidity provision is a foundational component of many DeFi smart contracts: liquidity providers contribute tokens to a smart contract, which other users can interact with in various ways (such as engaging in token swaps or token borrowings). In exchange for their contribution,

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[76] Proposed regs. section 1.6045-1(a)(21)(iii).

[77] *See* regs. section 1.6045-1(b), Example 2(ii) ("A person (such as a stock exchange) that merely provides facilities in which others effect sales" is not a broker).

liquidity providers receive transferrable tokens that can be redeemed for a portion of the assets held in the smart contract.

This section illustrates how liquidity provision works in the context of automated market makers (**AMMs**), borrowing protocols, and liquid staking protocols.

(1) Automated market makers

An AMM is a suite of smart contracts that facilitate token swaps. Typically, each smart contract handles one token pair (e.g., ETH-USDC, ETH-DAI, CRV-USDT, etc.). A liquidity provider can contribute equal values of each token within a pair to the related smart contract in exchange for a so-called **LP token**.

A smart contract in a "simple" AMM executes token swaps with users at prices determined algorithmically based on the relative amount of each token the smart contract holds, and charges the same percentage fee for each trade. Liquidity providers can redeem their LP tokens at any time for a proportionate share of whatever is in the smart contract at that time. The smart contract's transaction fees are set by the contract deployer.

The simple AMM model distributes liquidity evenly across the theoretical range of a token pair's relative prices. In a more complex AMM, liquidity providers can select the price range to which they wish to add liquidity (e.g., from [1 ETH = 1600 USDC] to [1 ETH = 1800 USDC]), and can redeem their LP tokens only for a proportionate share of whatever is in the smart contract within that price range at that time.[78] They also typically can set their own fees, so that traders potentially bear different fees within different price ranges.

(2) Borrowing protocols

A DeFi borrowing protocol is a suite of smart contracts that facilitate overcollateralized token "borrowings."[79] Users who contribute tokens to a smart contract can "borrow" other tokens from the smart contract up to a percentage of the value of the tokens they contributed, and can reacquire tokens identical to the ones they contributed by replacing the borrowed tokens and paying a time-based usage fee.

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[78] Because LP tokens for complex AMMs are fungible only with other LP tokens that have the same parameters, they typically are represented as NFTs (i.e., ERC-721 tokens on Ethereum).

[79] Borrowing protocols are sometimes referred to as "lending protocols," but the transactions that they enable do not involve "lending" or "loans" in a traditional sense and do not give rise to debt for U.S. tax purposes. *See, e.g.*, Jake Chervinsky, *DeFi Protocols Don't Do 'Lending,'* Bankless, *available at* https://www.bankless.com/defi-lending-doesnt-exist-yet (Sep. 3, 2020).

Each user who contributes tokens to a DeFi borrowing protocol is not just a potential borrower, but also a liquidity provider, because the tokens they contribute can be borrowed by other users. When a user contributes tokens to the protocol, they receive a fungible token that is redeemable for (1) their contribution and (2) any usage fees accrued in respect of that contribution.[80]

(3) Liquid staking protocols

Liquid staking protocols are designed to socialize the costs, risks, and rewards of running Ethereum validator software. Very generally, non-validators contribute their ETH into a smart contract in exchange for fungible tokens redeemable for a portion of the assets within the smart contract. Based on the pre-defined logic of the smart contract, users' contributed ETH is allocated among participating validators to ensure that each has the minimum stake required by Ethereum's consensus mechanism.[81] A portion of validator rewards are credited to participating validators as a fee; the remainder accrue inside the smart contract or are credited on a current basis to the non-validators.

b) Liquidity providers are not brokers under any reasonable interpretation of the term

The U.S. tax treatment of liquidity provision is unknown. Under one approach, a liquidity provider is treated as engaging directly in the activities of the applicable smart contract. Under an alternative approach, the smart contract is deemed to be a tax "person" that is not looked through.[82] It is also possible that some liquidity provision arrangements are looked through and others are not.[83]

If liquidity providers are treated for purposes of the Proposed Regulations as engaging directly in the activities of the applicable smart contract, many could be brokers under the Proposed Regulations, but would have no way to comply. For example, liquidity providers to AMMs arguably would be treated as providing "market making functions" by standing ready (through a smart contract) to buy and sell tokens, and market making functions are an example

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[80] Alternatively, usage fees might be credited on a current basis to liquidity providers.

[81] Validators might be required to contribute some value as "collateral" to the smart contract.

[82] *See, e.g.*, Jason Schwartz, *Squaring the Circle: Smart Contracts and DAOs as Tax Entities*, https://www.friedfrank.com/uploads/siteFiles/Publications/Decentralized%20Autonomous%20Organizations%20_%20Decentralized%20Law.pdf (July 29, 2022) (suggesting some pooled smart contracts might be treated as foreign corporations that are not passive foreign investment companies).

[83] *See, e.g.*, Jason Schwartz, *The Latest DeFi Alpha Is Tax-Optimized Staking*, https://www.friedfrank.com/uploads/documents/cc68fd4ecd02c64da95a5c0752355f73.pdf (May 25, 2022).

of a facilitative service.[84] Moreover, many of those liquidity providers have the ability to set their own fees. (Fees for using the "simple" AMM described above are set by the smart contract deployer; fees for using the more complex AMM described above can be set by each liquidity provider.) Someone who is able to set fees is deemed under the Proposed Regulations' *per se* rule to be in a "position to know."[85] However, liquidity providers are never, in fact, in a position to know the identities of smart contract users. Accordingly, treating liquidity providers as brokers would be inconsistent with the IRS's own commitment not to treat "ancillary parties who cannot get access to information that is useful to the IRS" as brokers and impose an impracticable compliance requirement.

3. Protocol stewards

a) Background on protocol stewards

Typically, a group of developers creates a suite of smart contracts that comprises the initial version of a DeFi protocol. Once deployed to a blockchain, a smart contract's code cannot be altered. However, smart contracts can be, and often are, coded with configurable parameters, such as fees, collateralization requirements, and liquidation thresholds. The ability to adjust those parameters as market conditions change could be essential to ensuring the smooth functioning of a DeFi protocol.

b) Protocol stewards are not brokers under any reasonable interpretation of the term

The Preamble to the Proposed Regulations provides that the ability of "a digital asset trading platform operator" to replace a contract within a protocol or modify its parameters "strongly suggests" the operator is in a "position to know."[86] Neither the Preamble nor the Proposed Regulations define "platform" or "operator." Based on context, we assume "platform" includes a suite of smart contracts and "operator" includes a development team or DAO stewarding the suite.

As discussed in Part VIII.C.1., smart contract coders and deployers are not brokers under any reasonable interpretation of the term. Publishing code does not constitute a "service

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[84] *See* proposed regs. section 1.6045-1(a)(21)(iii)(A).

[85] *See* proposed regs. section 1.6045-1(a)(21)(ii)(A) ("a person with the ability to change the fees charged for facilitative services is an example of a person that maintains sufficient control or influence over provided facilitative services to have the ability to set or change the terms under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request").

[86] Preamble, Explanation of Provisions, Part I.B.

effectuating transfers," and smart contract deployers currently have no practical way of determining the identities of the users of their contracts. Thus, regardless of who an "operator" is, replacing a smart contract within a smart contract suite cannot cause the operator to be a broker.

For the same reasons, the ability to modify the parameters of a smart contract cannot cause someone to be a broker. Modifying code does not constitute a "service effectuating transfers," and smart contract stewards—whether they are software developers or DAOs—currently have no practical way to determine the identities of the users of those contracts.

IX. If the IRS proceeds with the Proposed Regulations, it should significantly delay the implementation timeline

In light of the concerns raised in this report and the sheer number of comment letters already submitted raising myriad issues, the Treasury and the IRS should delay the effective date of any broker reporting obligations that would apply to digital asset middlemen. Simply put, there is not enough clarity in the Proposed Regulations to be able to implement them in general, and even a set of clearer rules would require a tremendous development effort. This is especially true given that the persons affected do not currently have any infrastructure for complying and had previously received assurances from the Treasury that they would not be captured by the Proposed Regulations.[87]

For comparison, Congress amended section 6045 to require basis reporting in 2008, but the requirement did not take effect for debt instruments and options until eight years later, in 2016.[88] Traditional brokers subject to basis reporting tend to be financial institutions with customer relationships that give them reason to collect personal information as part of their business. By contrast, digital asset middlemen are not financial institutions, often do not have customer relationships under a traditional understanding of the term, and do not have any non-tax reason to collect personal information.

Furthermore, a significant number of non-brokers who otherwise would be subject to the Proposed Regulations may choose to instead block the internet protocol (**IP**) addresses of U.S. persons instead of completely altering their businesses to become brokers. However, the Proposed Regulations are unclear on what measures are required to avoid application of the Proposed Regulations. Specifically, the Proposed Regulations provide that a customer's communication from a U.S. IP address could cause a sale otherwise treated as effected at an

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87 *See* Treasury Letter.

88 *See* regs. section 1.6045-1(n)(3).

office *outside* the United States by a non-U.S. digital asset broker to be treated as effected from *within* the United States.[89] If the IRS proceeds with the Proposed Regulations, it should clearly delineate the criteria necessary to avoid application of the Proposed Regulations to entities outside the United States.

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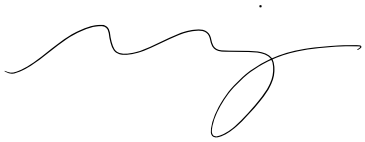
We appreciate your consideration of our observations and recommendations. If you have any questions or comments regarding this letter, please feel free to contact us.

Sincerely,



Miller Whitehouse-Levine
Chief Executive Officer
DeFi Education Fund

Amanda Tuminelli
Chief Legal Officer
DeFi Education Fund

cc: Jason Schwartz, Fried, Frank, Harris, Shriver & Jacobson LLP

[89] Proposed regs. section 1.6045-1(g)(4)(iv)(B)(1).

Exhibit 3

BLOCKCHAIN ASSOCIATION

June 21, 2024

Via E-mail (pra.comments@irs.gov)

Andres Garcia
Internal Revenue Service
Room 6526
1111 Constitution Avenue NW
Washington, DC 20224
pra.comments@irs.gov

Re: Comment Request for Digital Asset Proceeds From Broker Transactions; 89 Fed. Reg. 78 at 29433 (April 22, 2024) (the "Notice")

The Blockchain Association (the "Association") submits these comments in response to the above-captioned Notice published pursuant to the Paperwork Reduction Act (44 U.S.C. § 3501 *et seq*., the "PRA"). The Association is the leading nonprofit membership organization dedicated to promoting a pro-innovation policy environment for the digital asset economy. The Association endeavors to achieve regulatory clarity and to educate policymakers, regulators, courts, and the public about how blockchain technology can pave the way for a more secure, competitive, and consumer-friendly digital marketplace. The Association represents nearly 100 member companies reflecting the wide range of the dynamic blockchain industry, including software developers, infrastructure providers, exchanges, custodians, investors, and others supporting the public blockchain ecosystem.

On August 29, 2023, the Secretary of the Treasury issued proposed regulations, which purport to interpret and implement the reporting requirements of Section 6045[1] (the "Proposed Regulations"). On November 13, 2023, the Association submitted a comment letter in response to the Proposed Regulations (the "November Comment").[2] On April 18, 2024, in connection with the Proposed Regulations, the U.S. Department of the Treasury ("Treasury") released a draft of Form 1099-DA.[3] Because the Form 1099-DA, once finalized, will prompt a new "collection of information" by a federal agency, Treasury must solicit comments pursuant to the PRA.[4] Treasury issued its Notice soliciting comments pursuant to the PRA on April 22, 2024.[5]

The PRA protects the public from burdensome regulations that involve the "collection of information" by or on behalf of a federal agency. The PRA requires "[a]gencies … to minimize the

[1] Unless otherwise noted, all section references are to the Internal Revenue Code of 1986, as amended (the "Code") or Treasury Regulations thereunder.
[2] The Blockchain Association, Comment Letter on IRS Proposed Rulemaking REG-122793-19 (Nov. 13, 2023), *available at* https://theblockchainassociation.org/wp-content/uploads/2023/11/Blockchain-Association-Broker-Comment-Letter-2023-11-13.pdf.
[3] I.R.S., 2025 Form 1099-DA (Draft) (Apr. 18, 2024), *available at* https://www.irs.gov/pub/irs-dft/f1099da--dft.pdf.
[4] 44 U.S.C. § 3506(c)(2)(A).
[5] Proposed Collection; Comment Request for Digital Asset Proceeds from Broker Transactions, 89 Fed. Reg. 78 at 29,433 (Apr. 22, 2024).

burden on the public to the extent practicable."[6] Tax forms like the proposed Form 1099-DA are "typical information requests" under the PRA,[7] and therefore Treasury must consider comments concerning:

- Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility;
- The accuracy of the agency's estimate of the burden of the collection of information;
- Ways to enhance the quality, utility, and clarity of the information to be collected;
- Ways to minimize the burden of the collection of information on respondents; and
- Estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.[8]

The Association incorporates its November Comment by reference, and notes that the November Comment includes extensive suggestions of ways to enhance the quality of the information collected and reduce the attendant burden. The November Comment also explains why collecting information pursuant to the Proposed Regulations is infeasible for certain market participants.

I. Treasury's estimate of the burden of the collection of information is inaccurate.

A. *Treasury underestimates the time burden associated with the Proposed Regulations.*

Treasury's estimated number of total annual burden hours is, at best, confusing and inaccurate and, at worst, intentionally misleading. In the Notice, this burden is listed as 2,146,250 hours.[9] That number is the result of multiplying the estimated number of brokers impacted by the rule (5,050) by the estimated number of "responses" per impacted broker (2,833) by the estimated time per "response" (0.15 hours).[10]

However, when one attempts to analyze the estimate in reference to the Proposed Regulations, the number begins to fall apart. In the Proposed Regulations, the estimated response time of 0.15 hours was calculated per customer, not (as the Notice might have you believe) per form.[11]

In other words, the Proposed Regulations make clear that a single completed "response" includes *all* of the forms required per "customer," not just a single form.[12] The Form 1099-DA is a

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[6] *Dole v. United Steelworkers of America*, 494 U.S. 26, 32 (1990).
[7] *Id.* at 33.
[8] *See* Notice; *see also* 44 U.S.C. § 3506(c)(2)(A).
[9] *See id.* Adding to the confusion, on April 14, 2024, Treasury filed an Information Collection Requirement with the Office of Information and Regulatory Affairs that attributed 700 million burden hours to the Proposed Regulations. *See* ICR Summary of Burden for ICR Ref. No. 202311-1545-015, *available at* https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202311-1545-015. No explanation for (or acknowledgement of) this discrepancy was offered.
[10] *See* Notice.
[11] *See* Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, 88 Fed. Reg. 166 at 59,573, 59,619 (Aug. 29, 2023).
[12] *See id.* ("A reasonable burden estimate for the average time to complete **these forms for each customer** is between 7.5 minutes and 10.5 minutes, with a mid-point of 9 minutes (or 0.15 hours)" (emphasis added)).

per-transaction document. Many "customers" are likely to engage in multiple transactions each year and thus are likely to receive more than one Form 1099-DA.[13] Therefore, the vast majority of "responses" will likely encompass some indeterminate number of individual forms.[14] Julie Foerster, the Director of Digital Assets for the Internal Revenue Service, has stated publicly that the agency anticipates processing an ***additional eight billion Forms 1099-DA*** in the event the Proposed Regulations are finalized as written.[15] Assuming this is true, the Notice implies that the amount of time it will take a broker to fill out a single Form 1099-DA is approximately one second – a major and obvious understatement.[16]

A more accurate estimate is that the Proposed Regulations will result in ***at least four billion total annual burden hours*** for preparation of Forms 1099-DA. Treasury considers the Form 1099-DA to be similar to the preexisting Form 1099-B.[17] The time required to fill out a single Form 1099-B is, according to Treasury, approximately 30 minutes.[18] So, if the actual number of Forms 1099-DA per year is eight billion, and the time required to fill out each Form 1099-DA is in the ballpark of what is required to complete a Form 1099-B (i.e., 30 minutes per form), the true time burden created by the Proposed Regulations is about four billion hours.[19] This would increase the total paperwork burden created by the entire United States government by about one-third – all for the preparation of a single form.[20] This does not take into account the burden imposed on the taxpayers who receive these forms from brokers and must determine how to incorporate the forms into their tax returns. It also does not consider the burden imposed on the IRS for collecting, storing, and reviewing the forms.

Any agency proposal that introduces four billion annual burden hours and an additional eight billion forms to the to-do lists of both taxpayers and the federal government does not comply with the PRA as a matter of common sense—particularly when the agency's official notice under the PRA does not even acknowledge or attempt to justify this burden.

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[13] *See* I.R.S., 2025 Form 1099-DA (Draft) (Apr. 18, 2024), *available at* https://www.irs.gov/pub/irs-dft/f1099da--dft.pdf (calling for information for a single transaction).

[14] Note that the IRS does have rules allowing for a "substitute statement," whereby information technically required to be reported on separate "forms" may instead be reported in a single statement with more than one transaction per page. This is the case for 1099-Bs, for example. The number of "forms" required is technically the same, and the information required is the same, but you can meet the obligation to file these multiple forms with a single "substitute statement."

[15] Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp.

[16] 2.15 million hours / 8 billion forms = 7.74 billion seconds / 8 billion forms = ~1 second per form.

[17] *See* Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, 88 Fed. Reg. at 59,619 (Aug. 29, 2023) (stating that estimates are based on data collected from filers of "*similar information returns*" such as Form 1099-B) (emphasis added).

[18] *See* I.R.S., *General Instructions for Certain Information Returns (2024)*, Cat. No. 27976F (Jan. 26, 2024), *available at* https://www.irs.gov/pub/irs-pdf/i1099gi.pdf at page 25.

[19] 8 billion forms x .5 hours per form = 4 billion hours. This itself is an understatement given that, as described in our November Comment, the information required to be reported is far more complicated, if not impossible, to collect.

[20] *See Inventory of Currently Approved Information Collections*, OIRA, https://www.reginfo.gov/public/do/PRAReport?operation=11 (total annual reporting burden is currently about 11.92 billion hours) (last visited June 21, 2024).

B. *Treasury underestimates the financial expense associated with the Proposed Regulations.*

The Proposed Regulations calculated the financial burden of completing Forms 1099-DA to be $136,350,000 annually or $63.53 per hour. Applying this hourly rate to the more accurate four billion hours estimate results in an annual financial burden of ***at least $254 billion***.[21] Recently, the IRS estimated that "global crypto revenue" is between $1 billion and $37 billion per year, with only about 25% of transactions currently reported.[22] It did not analyze how much of global crypto revenue is taxable in the United States. However, even assuming that all global crypto revenue is taxable in the United States at the highest individual tax bracket (37%), the tax gap for digital assets would be approximately $10 billion per year. To require the industry to spend over $250 billion per year to help lower a tax gap that is, at the highest conceivable level, $10 billion per year, is completely unreasonable.

II. This collection of information is not necessary for the proper performance of the functions of Treasury and offers no practical utility.

As the Association pointed out in its November Comment, much of the information that will be collected by the Form 1099-DA is precisely the type of highly burdensome, practically useless trivia the PRA seeks to avoid. For example, the Proposed Regulations do not include a *de minimis* exception.[23] Therefore, a large number of Forms 1099-DA will report on trivial transactions, and the Proposed Regulations require reporting even of transactions resulting in no gain or loss whatsoever. The cost of compliance for brokers and affected taxpayers who will be required to wade through a deluge of small-value transactions to ensure that each one is accurately reported greatly outweighs the immaterial amount of income tax that may be remitted to the fisc as a result of their inclusion. The absence of a threshold will not meaningfully contribute to closing the tax gap and is, therefore, of minimal practical utility to Treasury.

Similarly, the broad definition of "digital asset" in the Proposed Regulations captures assets whose value is pegged to an underlying currency, commodity, or financial instrument, including stablecoins.[24] Notwithstanding that transactions in stablecoins are functionally equivalent to electronic transfers of currencies, which are generally not required to be reported, and that it would be extremely unusual for a holder to recognize gain or loss on stablecoins, the Proposed Regulations would subject stablecoins whose value is pegged to the dollar to the same reporting obligations as other assets held purely for investment. This bizarre treatment will flood Treasury with reporting on transactions that reflect minimal value fluctuation, which, even when taken all together, are unlikely to have any significant practical utility (particularly when compared to the countervailing burden). Were this type of reporting of any actual use to Treasury, one would expect to see it required across all comparable asset classes. Instead, transactions in currencies are generally not required to be reported.

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[21] As explained in the November Comment, Treasury also significantly undercounts the financial burden in other ways, including, for example, by failing to take into account the "start-up" burdens of creating the reporting systems required by the Proposed Regulations. *See November Comment* at 32–33.

[22] *See* I.R.S. Pub. 5901, Cat. No. 94564D at 4 (Feb. 2024), *available at* https://www.irs.gov/pub/irs-pdf/p5901.pdf.

[23] *See* November Comment at 16–17.

[24] *See id.* at 15–16.

The Proposed Regulations also require reporting on the exact date and time of each and every digital asset transaction.[25] Reporting the exact transaction time is unnecessary, will add to the voluminous nature of the reports received by taxpayers and the IRS, and will create additional difficulty with implementing the use of a single time zone, particularly given that digital asset markets operate 24/7. This information is not required to accurately determine tax liability, as evidenced by the fact that it is not required for transactions of non-digital assets. The utility of this information is practically inconceivable, yet brokers may soon be required to document it on Forms 1099-DA.

Finally, the Proposed Regulations result not only in the reporting of inconsequential minutiae but also in duplicative reports. The Proposed Regulations decline to apply the "multiple broker rule" that protects against duplicative reporting of non-digital assets to transactions in digital assets.[26] In other words, the Proposed Regulations will result in multiple parties reporting on the same transaction. To state the obvious, receiving the same information on the same transaction from several different brokers is unlikely to enhance the proper performance of Treasury.

III. Conclusion

For the reasons set forth above, the Proposed Regulations run directly afoul of the PRA, and the Notice itself provides inadequate, facially absurd estimates of the paperwork burden associated with the Proposed Regulations. The Association encourages Treasury to acknowledge the true burdens of the Proposed Regulations, to reconsider certain aspects of the Proposed Regulations, and to re-propose rules that would better account for practical considerations in the digital asset ecosystem.

* * * * *

We appreciate the opportunity to comment on these regulations and would be happy to discuss further any of the issues discussed here.

Respectfully submitted,

Marisa T. Coppel
Head of Legal

Laura Sanders
Policy Counsel

[25] *See id.* at 17–18.
[26] *See id.* at 18.

cc: Daniel Werfel, Commissioner, Internal Revenue Service
William M. Paul, Acting Chief Counsel, Internal Revenue Service
Skadden, Arps, Slate, Meagher & Flom LLP
Lydia Austin
Christopher Bowers
Alexander Drylewski
Shay Dvoretzky
Nathan Giesselman
Juliana Hunter
Steven Marcus

Exhibit 4

DeFi Education Fund

June 21, 2024

Submitted via email to: pra.comments@irs.gov

Andres Garcia
Internal Revenue Service, Room 6526
1111 Constitution Avenue NW
Washington, DC 20224

Re: Comment on Proposed Collection; Comment Request for Digital Asset Proceeds From Broker Transactions

The DeFi Education Fund (DEF) submits this comment letter in response to the Internal Revenue Service's (IRS) proposed collection with respect to digital asset proceeds from broker transactions (the Proposed Collection),[1] based on the digital assets broker reporting regulations proposed by the IRS on August 29, 2023 (the Proposed Regulations).[2]

If finalized in their current form, the Proposed Regulations would prevent the IRS's Proposed Collection from adhering to its obligations under the Paperwork Reduction Act (the PRA).[3] First, the Proposed Regulations' definitions for "broker" and "digital asset middlemen" are not clear, coherent, and unambiguous, preventing the public from gauging whether or not they are required to comply with the Proposed Collection requirements. Second, the Proposed Collection would impose an undue burden on covered persons involved with decentralized finance (DeFi) by failing to both minimize the burdens and establish differing compliance or reporting requirements that take into account the resources available to those who are to respond. Third, the IRS fails to efficiently and effectively increase taxpayer compliance with the Proposed Collection, leading to unnecessary burdens for both taxpayers and the government.

By way of background, DEF is a non-partisan research and advocacy group. Our mission is to educate lawmakers about the technical workings and benefits of DeFi, achieve regulatory clarity for the future of the global digital economy, and advocate for individual users and developers in the DeFi space. DeFi has immense potential to advance innovation in the world economy, and we believe that potential can best be realized only in conjunction with smart policy.

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1 89 Fed. Reg. 29433.

2 88 Fed. Reg. 59576.

3 44 U.S.C. § 3506 (2022).

I. The definitions on which the Proposed Collection are based render it unclear, incoherent, and ambiguous.

The Proposed Regulations' definitions for "broker" and "digital asset middlemen" render the Proposed Collection unable to meet the PRA's requirement that it be "written using plain, coherent, and unambiguous terminology and is understandable to those who are to respond" as stipulated by section 3506(c)(3)(D) of the PRA.[4] The limitless scope of the Proposed Regulations' definitions make it unclear as to who is obligated to respond to the Proposed Collection of information. As a result, the obligated public would be left in a state of bewilderment.

a. Definition for "broker" is limitless in scope.

The Proposed Regulations would rewrite the Internal Revenue Code by deputizing as brokers, for the first time in history and in contravention of Congress's stated intent,[5] persons who (1) do not collect users' tax information as part of their business, (2) have no reason to collect tax information other than by reason of the Proposed Regulations, and (3) do not receive tax information voluntarily.

First, the Proposed Regulations define "facilitative service" to include "a service that directly or indirectly effectuates a sale of digital assets." Because the Proposed Regulations do not offer any clarity on the outer bounds of "indirectly,"[6] the term "facilitative service" has no discernible limits. The laundry list of facilitative services in the Proposed Regulations appears to confirm the term's limitlessness by casting such a wide net as to include informational services,[7] information transmission services,[8] and marketplace availability services.[9]

Second, the Proposed Regulations provide that the "position to know" standard is satisfied if the person offering "facilitative services" has "the ability" to "request" a user's identifying information and to determine whether a transaction gives rise to gross proceeds.[10]

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4 44 U.S.C. § 3506(c)(3)(D) (2022).

5 DeFi Education Fund, *Comment on the Proposed Rule on Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, REG-122793-19*, at I(A) (Nov. 7, 2023).

6 Proposed regs. section 1.6045-1(a)(21)(iii)(A).

7 *Id.* ("providing services to discover the most competitive buy and sell prices").

8 *Id.* ("providing a party in the sale with access to an automatically executing contract or protocol, providing access to digital asset trading platforms").

9 *Id.* ("providing an automated market maker system").

10 Proposed regs. section 1.6045-1(a)(21)(ii)(A) ("A person ordinarily would know or be in a position to know the identity of the party that makes the sale if that person maintains sufficient control or influence over the facilitative services provided to have the ability to set or change the terms

Because everyone with an internet connection has "the ability" to "request" identifying information from everyone else with an internet connection, as well as "the ability" to inspect the public blockchain and thereby determine whether a transaction gives rise to gross proceeds, the "position to know" standard is as boundless as the definition of "facilitative services." Moreover, under a per se rule, the Proposed Regulations automatically treat any "person with the ability to change the fees charged for facilitative services" as being in a position to know[11] so that virtually every for-profit business even tenuously involved in blockchain technology would be in a "position to know" and therefore could be a broker under the Proposed Regulations.

While the Proposed Regulations suggest that the "position to know" standard is similar to the "ordinarily would know" standard applicable under the current broker reporting regulations,[12] no reasonable comparison of the two standards supports that view. The Proposed Regulations abandon an objective test in favor of an inquiry into whether a person has "the ability," under some set of hypothetical circumstances that might not exist in reality, to newly "request" information from third parties and assumes that the ability to request equates to the ability to obtain. This concept represents a dramatic departure from the traditional understanding of what a broker is. Historically, broker status has hinged on whether a person acted as a customer's agent or principal and ordinarily would know information about the customer that only those engaged in broker-like activities would know. By contrast, the Proposed Regulations would require anyone who provides any help with an on-chain transaction and could theoretically request and collect personal information to do just that — and to securely store and report the information — even if doing so would fundamentally change their business model, be prohibitively expensive, or have a ruinous effect on the goodwill of users of their products.

It is unclear, for example, why Google's search engine is not a broker under the limitless scope of the Proposed Regulations. First, if a user searches for information on how to exchange a digital asset and Google provides instructions on how to do so, Google has "indirectly" effectuated the exchange and therefore provided "facilitative services." Second, because Google has "the ability" to "request" a user's identifying information and to determine whether the user's on-chain transaction occurs and gives rise to gross proceeds, Google is in a "position to know" the user's identity and whether and the extent to which the user's transfer of digital assets gives rise to gross proceeds. Moreover, because Google has "the ability to change the fees charged" for its facilitative services, either by changing its ad revenue model or by

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under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request."); proposed regs. section 1.6045-1(a)(21)(ii)(B) ("A person ordinarily would know or be in a position to know the nature of the transaction potentially giving rise to gross proceeds from a sale if that person maintains sufficient control or influence over the facilitative services provided to have the ability to determine whether and the extent to which the transfer of digital assets involved in a transaction gives rise to gross proceeds").

[11] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[12] *See* Preamble, Explanation of Provisions, Part I.B. ("This definition is similar to the definition in the existing regulations with respect to agents."); reg. section 1.6045-1(a)(10)(i).

pay-walling its search engine, Google is in a "position to know" under the Proposed Regulations' per se rule. Clearly, Google never would be treated as a broker under current law, yet it appears to be a broker under a "plain" reading of the Proposed Regulations.

The Proposed Regulations' interpretation of "broker" to include "digital asset middleman" is limitless in scope and manifestly contrary to the plain language of Section 6045(c)(1)(D). Therefore, the Proposed Collection of information associated with the Proposed Regulations do not adhere to the requirement of plain, coherent, and unambiguous terminology under the PRA.[13]

b. Definition for "digital asset middlemen" is both vague and overbroad.

The Proposed Regulations' definition of "digital asset middleman," which is vague and overbroad to the point of being unintelligible, is a fundamental problem that the Proposed Collection of information cannot overcome. What does it mean to "indirectly effectuate" a sale, or to provide "access to" smart contracts or protocols? What is a "platform" and what does it mean to provide "access to" one? What is a "system" and what does it mean to provide one? What are "services to discover the most competitive buy and sell prices" — do they include, for example, Google, CoinMarketCap, and CNN? Any attempt to construe "digital asset middleman" in a practical manner, taking into account statements made in the Preamble, inexorably leads to the conclusion that the Proposed Regulations could treat every participant in the blockchain technology stack as a broker.

As our previous comment letter to the IRS explains (attached), broadly, there are three phases of a DeFi transaction. During the information creation phase, a user interacts with informational services (similar to Google, Yahoo! Finance, and Wikipedia) to build a transaction instruction. During the information transmission phase, the user directs information transmission services (similar to FedEx, Gmail, or internet service providers) to impartially transfer the transaction instruction to validators for inclusion on-chain. During the state change phase, a transaction is settled in accordance with the user's instruction and software deployed and governed by marketplace availability services (similar to stock exchanges, online peer-to-peer marketplaces, or flea markets).

The Proposed Regulations would apply to virtually every participant in the tech stack, as well as to any other technology providers who "indirectly" enable people to send messages over the internet (e.g., browsers, internet service providers, and smartphone manufacturers), because the meaning of "indirectly effectuating" has no limits. Engaging with the details of how DeFi technology and participants operate makes these points clear. Self-custodied digital assets are the online equivalent of physical cash and collectibles, and the technology stack participants described in our previous comment letter do not "cause" or "bring about" transfers of digital assets any more than physical banner printers, ticker tape publishers, courier services, or flea market operators "cause" or "bring about" transfers of physical cash and collectibles. As the

[13] 44 U.S.C. § 3506(c)(3)(D).

Preamble itself recognizes, "only the user of an unhosted wallet has access to both the public and private keys necessary to effect transactions in the digital assets associated with those keys."[14] The purpose of the Internal Revenue Code's broker reporting requirements is not to compel the creation of otherwise absent intermediaries by coercing developers and users of software to upend the way they interact, and the Proposed Regulations' attempt to do so contradicts the plain language of the statute.

II. The Proposed Collection would impose undue burdens on covered persons involved with DeFi technology.

a. The Proposed Regulations fail to minimize the burden of the Proposed Collection on the public.

Section 3506(b)(1)(A) of the PRA requires federal agencies to minimize the burden of information collection on the public.[15] However, in their Proposed Regulations, the Treasury and IRS have failed to fully consider and disclose the expected costs of the Proposed Regulations to so-called "digital asset middlemen," neglecting their responsibility to minimize the burden of the Proposed Collection of information.

The Preamble estimates that the Proposed Regulations would generate an additional 14.5 million additional information returns annually.[16] On that basis, the Preamble estimates that the Proposed Regulations would impose an annualized cost on brokers of $136,350,000 in the aggregate, or $27,000 per broker, in each case disregarding startup costs. However, the IRS revised its estimate of 14.5 million additional information returns annually under the Proposed Regulations to 8 billion.[17] Based on the IRS's own expectation that each Form 1099-DA would cost $9.40 to generate,[18] the updated estimate of eight billion new information returns annually means the Proposed Regulations would impose an annualized cost on brokers of approximately $75.2 billion in the aggregate, or $14.9 million per broker, in each case disregarding startup costs.[19]

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14 Preamble, Background, Part I (emphasis added).

15 44 U.S.C. § 3506(b)(1)(A).

16 *See* Preamble, Special Analyses, Part II.

17 *See* Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25 /7hhdp (reporting statements by Julie Foerster, IRS director of digital assets).

18 See Preamble, Special Analyses, Part II (assuming 14.5 million Form 1099-DA recipients, 5,050 brokers, and $27,000 ongoing annual compliance costs per broker). 14.5 million forms ÷ 5,050 brokers = approximately 2,871 forms per broker. $27,000 annual compliance costs per broker ÷ 2,871 forms per broker = approximately $9.40 per form.

19 8 billion forms annually × $9.40 per form = $75.2 billion annualized costs. $75.2 billion annualized costs ÷ 5,050 brokers = $14,891,089 annualized costs per broker.

In addition, whereas the Preamble estimates approximately 2.15 million aggregate hours of compliance costs, or 425 hours per broker (i.e., 1,034 full-time jobs, assuming a 40-hour workweek),[20] the IRS's revised expectation that the Proposed Regulations would generate eight billion new forms each year means the Proposed Regulations would impose approximately 1.2 billion aggregate hours of compliance costs, or 237,623 hours per broker.[21] That is the equivalent of nearly 600,000 new full-time jobs, assuming a 40-hour workweek.

Moreover, because the Preamble's cost and time estimates are "based on survey data collected from filers of similar information returns,"[22] whereas most of the persons treated as brokers under the Proposed Regulations' definition of "digital asset middleman" are leanly staffed financial technology firms without any pre existing infrastructure for requesting, collecting, storing, or reporting personal data, those estimates are likely to have been grossly optimistic. Accordingly, based on the IRS's own estimates, it is highly probable that, in many situations, the Proposed Collection would impose insurmountable costs on market participants that deprive them of the ability to continue operating as going concerns.

b. The Proposed Regulations fail to establish differing compliance or reporting requirements that take into account the resources available to those who are to respond.

Section 3506(c)(3)(C)(i) of the PRA requires federal agencies to establish differing compliance or reporting requirements that take into account the resources available to those who are to respond, which the Proposed Collection fails to do.[23] In the case of DeFi, the technology stack participants do not have traditional broker functions, making them ill-equipped to provide the information required in the Proposed Regulations and Collection. This means the IRS must establish differing compliance or reporting requirements but has overlooked or ignored this requirement by moving forward with the Proposed Regulations.

III. The Proposed Regulations aim to increase taxpayer compliance and facilitate the preparation of tax returns but fail to do so efficiently and effectively, leading the Proposed Collection to impose unnecessary burdens without meeting statutory requirements.

a. Taxpayers

The stated objective of the Proposed Regulations is to enable higher levels of taxpayer compliance by developing clear information reporting rules as well as "facilitate the preparation

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20 *See* Preamble, Special Analyses, Part II (estimating 0.15 hours per form).

21 0.15 hours per form × 8 billion forms = 1.2 billion total hours. 1.2 billion total hours ÷ 5,050 brokers = 237,623 total hours per broker.

22 Preamble, Special Analyses, Part II.

23 44 U.S.C. § 3506(c)(3)(C)(i).

of tax information" to reduce the number of errors and intentional misstatements.[24] Given the operational realities of DeFi technology and participants, the proposal will not serve its intended purpose effectively and efficiently without imposing undue burdens and confusion on taxpayers. Therefore, the Proposed Regulations inhibit the Proposed Collection from complying with Section 3506(b)(1)(B) of the PRA, which requires agencies to increase program efficiency and effectiveness.[25]

First, because the Proposed Regulations do not treat digital asset brokers as exempt recipients, taxpayers would receive multiple Form 1099s for every transaction they effectuate. Accordingly, taxpayer income is likely to be significantly overreported.

Second, because there remain significant questions about the U.S. tax treatment of typical DeFi transactions, taxpayers are likely to receive incorrect or inconsistent information depending on how brokers interpret U.S. tax law. For example:

- **Wrapping:** "Wrapping" involves depositing one token (such as ETH) into a smart contract in exchange for a 1:1 pegged representation of the same token (such as wETH). DeFi users can wrap or unwrap a token by (1) interacting directly with the wrapping software, (2) exchanging the token for its wrapped counterpart on a decentralized exchange, or (3) engaging a transaction that automatically wraps or unwraps a token within a series of actions. Wrapping is very common in DeFi; as of November 2022, over 7% of all Ethereum transactions, or about 125 million transactions, involved wETH.[26] While most tax practitioners believe wrapping transactions are nontaxable because a token and its wrapped version are not materially different in kind or in extent[27] because a token and its wrapped version are each digital assets within the meaning of the Proposed Regulations, brokers might report an exchange of a token for its wrapped token on Form 1099, resulting in overreporting.

- **Liquidity provision:** As discussed in our previous comment letter to the IRS, the U.S. tax treatment of liquidity provision is unknown. Some brokers might report liquidity provision as a taxable exchange; others might report the underlying transactions as multiple taxable exchanges.

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24 *See* Preamble, Background, Part IV.

25 44 U.S.C. § 3506(b)(1)(B) (2022).

26 *See* Stephen Tong, *Formally Verifying the World's Most Popular Smart Contract* (Nov. 18, 2022) ("As of block 15934960 (November 9, 2022), WETH has been in 125,581,756 transactions. This count includes all 'top-level' transactions which call the WETH contract at any point, including via an internal transaction."), https://www.zellic.io/blog/formal-verification-weth/.

27 *See*, e.g., Jason Schwartz, *Taxation of Decentralized Finance*, Tax Notes (Feb. 7, 2022), https://www.friedfrank.com/uploads/siteFiles/Publications/Schwartz%20%2802-07-2022%29.pdf.

- **Token borrowing:** In a DeFi borrowing protocol, users who contribute tokens to a smart contract can "borrow" other tokens from the smart contract up to a percentage of the value of the tokens they contributed, and can reacquire tokens identical to the ones they contributed by replacing the borrowed tokens and paying a time-based usage fee.[28] The U.S. tax treatment of on-chain token borrowing is unknown. Under one theory, token borrowing is an exchange of one token for another, and therefore is a taxable exchange. Under an alternative theory, token borrowing is a deferred exchange of property for identical property and therefore is nontaxable under the same principles that led to the enactment of section 1058. The broker classification of many market participants could turn on the U.S. tax treatment of on-chain token borrowing. If on-chain borrowing triggers a tax event, front ends for DeFi borrowing protocols are likely to be brokers. If it is not, a further question arises as to whether a smart contract's liquidation of a borrower's collateral if its value falls below a specified threshold nevertheless causes the front end to be a broker.

b. Government Resources

The Proposed Regulations are also likely to result in the Proposed Collection putting an unprecedented burden on government resources, leading to inefficiencies within the IRS itself, and therefore, inhibiting the IRS from establishing an efficient information collection management system as stipulated by the PRA.[29] Based on the IRS's own estimate, the Proposed Regulations would result in at least eight billion additional information returns annually.[30] That estimate is more than 551 times greater than the Preamble's estimate of 14.5 million additional information returns.[31] By comparison, the IRS processed only 3.2 billion total information returns in 2020.[32]

Even the IRS's own recent estimate is likely to be conservative if it does not include many persons the Proposed Regulations appear to treat as brokers, such as RPC node managers, layer two aggregators, block builders, smart contract deployers, liquidity providers, and holders of governance tokens (each of which is described in our previous comment letter to the IRS), and it does not account for the likelihood that each transaction effected on-chain will

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28 DeFi borrowing protocols are discussed in greater detail in our previous comment letter to the IRS.

29 44 U.S.C. § 3506(b)(1)(B) (2022).

30 *See* Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25 /7hhdp (reporting statements by Julie Foerster, IRS director of digital assets).

31 *See* Preamble, Special Analyses, Part II.

32 IRS Statement, *Information Returns*, https://www.irs.gov/newsroom/irs-statement-information-returns (May 13, 2022).

be reported by multiple digital asset brokers. An estimate that includes those parties and allows for duplicative reporting could be multiple orders of magnitude greater than eight billion.

* * *

We appreciate the opportunity to provide our comments on the Proposed Collection. Should you have any questions or comments regarding this letter, please feel free to contact us.

Sincerely,

Lizandro Pieper
Policy Associate
DeFi Education Fund

DeFi Education Fund

November 7, 2023

Submitted via the Federal eRulemaking Portal at www.regulations.gov

Internal Revenue Service
Attn: CC:PA:LPD:PR (REG–122793–19)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Re: Comment on the Proposed Rule on Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, REG-122793-19

The DeFi Education Fund (**DEF**) submits this comment letter in response to the digital assets broker reporting regulations proposed by the Internal Revenue Service (IRS) on August 29, 2023, docket number REG-122793-19 (the **Proposed Regulations**).[1] If finalized in their current form, the Proposed Regulations would stretch the definition of "broker" beyond what section 6045(c)(1)(D) contemplates or the Constitution allows,[2] require information collection and reporting by individuals and entities incapable of collecting that information, unnecessarily endanger the personal data of millions of Americans, confuse taxpayers, stress government resources, stifle innovation, and cripple American businesses and competitiveness.

By way of background, DEF is a non-partisan research and advocacy group. Our mission is to educate lawmakers about the technical workings and benefits of decentralized finance (**DeFi**), achieve regulatory clarity for the future of the global digital economy, and advocate for individual users and developers in the DeFi space. This letter addresses transactions effected through a self-hosted wallet, even if those transactions are predominantly nonfinancial like buying a collectible nonfungible token (**NFT**). DeFi has immense potential to advance innovation

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1 88 Fed. Reg. 59576.

2 Except as otherwise specified, all section references herein are to the Internal Revenue Code and to proposed and final regulations thereunder.

in the world economy, and we believe that potential can best be realized only in conjunction with smart policy.

The Proposed Regulations interpret the term "broker" to include "digital asset middleman," a vague and expansive category of market participants that bears little resemblance to the persons historically considered brokers and required to report under section 6045. Part I explains why the digital asset middleman category stretches the statutory language beyond its breaking point in direct contravention of the relevant legislative history.

Part II illustrates the result of the Proposed Regulations' extra-statutory interpretation of "broker": a definition of "digital asset middleman" that is both so vague and overbroad as to be impossible to apply or administer.

Part III explains why the Proposed Regulations, if finalized in their current form, would increase rather than reduce taxpayer confusion.

Parts IV and V explain why the Proposed Regulations violate the Fourth Amendment's prohibition on warrantless searches and seizures and are void for vagueness under the due process clause of the Fifth Amendment.

Parts VI and VII explain that the Proposed Regulations would impose an undue financial burden on the IRS and market participants.

The Proposed Regulations' concept of digital asset middleman appears to be predicated on a misconception that the DeFi technology stack (technologies that are stacked together to build an application) includes identifiable "platform operators" who are closely analogous to traditional brokers and are in a position to collect customer information but choose not to.[3] Part VIII offers a plain-English explanation of the entire technology stack involved in the execution and transmission of a typical DeFi transaction to illustrate the impossibility of applying the "digital asset middleman" concept in practice and how overreaching it would be based on the preamble to the Proposed Regulations (the **Preamble**).

Part IX requests a delay in the effective date of the Proposed Regulations insofar as they apply to digital asset middlemen, assuming the IRS still plans to finalize them in their current form in spite of the more than 100,000 comments it has received to date.

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[3] *See* Preamble, Explanation of Provisions, Part I.B. ("The Treasury Department and the IRS expect that this clarified proposed definition will ultimately require operators of some platforms generally referred to as decentralized exchanges to collect customer information and report sales information about their customers, if those operators otherwise qualify as brokers. This decision was made because the reasons for requiring information reporting on dispositions of digital assets do not depend on the manner by which a business operating a platform effects customers' transactions.").

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I. The Proposed Regulations adopt an extra-statutory definition of "broker"

The Proposed Regulations would, if finalized, exceed the statutory authority Congress has granted to the Treasury and the IRS by expanding the concept of "broker" beyond any reasonable interpretation of section 6045(c)(1)(D).

A. The legislative history does not support the new definition of "broker"

The concept of "broker" for tax purposes has a long history. Since 1917, Congress has authorized the IRS and its predecessor to request information returns from brokers on Form 1099.[4] For as long as that authorization has existed, brokers subject to IRS reporting requirements have always been limited to persons doing business as brokers on regulated centralized marketplaces,[5] or, beginning in 1983, acting for customers in a trade or business in one of two roles:

- Agent (*i.e.*, custodians or persons directing payments on behalf of customers), if they ordinarily would know the gross proceeds from the sale; or
- Principal (*i.e.*, persons providing liquidity to the market).[6]

When Congress amended the definition of "broker" in 2021 to include "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person,"[7] it expressed a clear desire for the language to be interpreted in a manner consistent with the traditional understanding of "broker."

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[4] *See generally* Joseph Thorndike, *Wall Street, Washington, and the Business of Information Reporting*, Tax Notes (Feb. 13, 2006), https://www.taxnotes.com/tax-history-project/wall-street-washington-and-business-information-reporting/2006/02/14/y014.

[5] *See* Revenue Act of 1917, P.L. 65-50, section 1211, https://babel.hathitrust.org/cgi/pt?id=iau.31858047996222&seq=86/ (defining "broker" as a person "doing business as a broker on any exchange or board of trade or other similar place of business").

[6] T.D. 7873 (1983) (adopting current regulatory definition of "broker," which explicitly limits brokers to (1) agents who ordinarily would know the gross proceeds from the sale and (2) principals).

Proposed Regulations section 1.6045-1(a)(10)(i)(B) would clarify that a person who acts as a principal to a sale would be treated as "effecting" the sale only to the extent they are acting as a broker.

[7] Section 6045(c)(1)(D).

First, a colloquy from the Senate Floor relating to section 6045(c)(1)(D) (the **Colloquy**),[8] which the Treasury has explicitly recognized as legislative history,[9] specifically instructs the Treasury not to interpret the new provision to apply to persons other than "brokers." In light of the over 100-year-old history of legislative and regulatory interpretation of the term "broker," it would stretch credulity to conclude Congress used "brokers" in that context to mean persons other than those acting for customers as agents or principals.[10]

Second, Congress used the word "effectuate" in the text of section 6045(c)(1)(D). "Effectuate" is synonymous with "effect," the operative verb that has appeared in the regulatory definition of "broker" since 1983.[11] The plain meaning of both words is "to cause" or "to bring about,"[12] such that a close causal relationship is a precondition to broker treatment under the statute.[13]

Thus, the legislative history and statutory text establish that "providing any service effectuating transfers" under section 6045 does not—and never did—include the following:

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[8] *See Colloquy Among Senators Mark Warner and Rob Portman* (Aug. 9, 2021), https://www.warner.senate.gov/public/index.cfm/2021/8/on-senate-floor-warner-portman-conduct-colloquy-clarifying-cryptocurrency-provision-in-infrastructure-investment-jobs-act.

[9] *See* Letter by Jonathan C. Davidson, Assistant Secretary for Legislative Affairs, to Senators Portman, Warner, Crapo, Toomey, and Lummis (Feb. 11, 2022), https://www.stradley.com/-/media/files/publications/2022/02/crypto-davidsonletter.pdf?la=en&rev=b70305b1549241499395d19f03d4b32e&hash=72BF0360EABE4BC8EACCB8198F51371C ("This colloquy constitutes part of the legislative history of the…amendment to the definition of 'broker' in section 6045(c). The Treasury Department is considering these statements as part of the development of a notice of proposed rulemaking.").

[10] *See also* Joint Committee on Taxation, *Technical Explanation of Section 80603, "Information Reporting for Brokers and Digital Assets," of the Infrastructure Investment and Jobs Act*, at 5 (Aug. 2021), https://www.jct.gov/CMSPages/GetFile.aspx?guid=26e36c6d-3f46-4ac8-aa8b-f9975a4c7692 ("The change *clarifies present law* to resolve uncertainty over whether certain market participants are brokers.") (emphasis added).

[11] *See* regs. section 1.6045-1(a)(1) ("The term broker means any person…that, in the ordinary course of a trade or business during the calendar year, stands ready to effect sales to be made by others.").

[12] *See Effect*, Merriam-Webster Online, https://www.merriam-webster.com/dictionary/effect#dictionary-entry-2; *Effectuate*, Merriam-Webster Online, https://www.merriam-webster.com/dictionary/effectuate.

[13] *See Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983) ("effect" requires "a reasonably close causal relationship").

- Providing information that helps others effectuate transactions, such as Google, Yahoo! Finance, or Wikipedia (which we refer to as *informational services*);[14]
- Impartially transmitting information that might include requests to effectuate transactions, such as FedEx, Gmail, or an internet service provider (which we refer to as *information transmission services*);[15] or
- Providing forums in which others might effectuate transactions, such as stock exchanges, online peer-to-peer marketplaces, or flea markets (which we refer to as *marketplace availability services*).[16]

The Treasury itself has acknowledged the import of the legislative history. In February 2022, in an open letter (the **Treasury Letter**) to several Senators regarding section 6045(c)(1)(D), the Treasury acknowledged that Congress did not intend to fundamentally change the meaning of the term "broker" by expanding Form 1099 reporting to digital assets.[17] The Treasury Letter explicitly assures the Senators that any regulations proposed under section 6045(c)(1)(D) "will be based on principles broadly similar to those applicable under current law for broker reporting on securities transactions," and confirms that "ancillary parties who cannot get access to information that is useful to the IRS are not intended to be captured by the reporting requirements for brokers."

Notwithstanding the plain language of the statute, the Colloquy, and its own acknowledgement in the Treasury Letter, the IRS would rewrite the historical definition of "broker" to include persons who are neither agents nor principals and cannot obtain identifying information from users except, possibly, by dramatically altering their businesses. More specifically, the Proposed Regulations introduce a brand-new category of broker, called "digital asset middleman," which they define as any person who (1) provides a "facilitative service" and (2) "ordinarily would know or be in a position to know" the identity of the party that makes a

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[14] *See, e.g.*, regs. section 1.6045-1(b), Example 2(i) (transfer agents who provide recordkeeping for stock transfers generally are not brokers). *But see* proposed regs. section 1.6045-1(a)(21)(iii)(A) (facilitative services include "providing services to discover the most competitive buy and sell prices").

[15] *See, e.g.*, regs. section 1.6045-1(b), Example 2(iv) (escrow agents that transfer assets "incidental to the purpose of the escrow" generally are not brokers). *But see* proposed regs. section 1.6045-1(a)(21)(iii)(A) (facilitative services include "providing a party in the sale with access to an automatically executing contract or protocol" and "providing access to digital asset trading platforms").

[16] *See, e.g.*, regs. section 1.6045-1(b), Example 2(ii) ("A person (such as a stock exchange) that merely provides facilities in which others effect sales" is not a broker). *But see* proposed regs. section 1.6045-1(a)(21)(iii)(A) (facilitative services include "providing an automated market maker system").

[17] *See* Treasury Letter, *supra* n.9.

sale and the nature of the transaction potentially giving rise to gross proceeds.[18] The new and expansive definition would push the IRS's jurisdiction far beyond what Congress authorized or envisioned.

B. The IRS's new definition of "broker" is impermissibly limitless in scope

The Proposed Regulations would rewrite the Internal Revenue Code by deputizing as brokers, for the first time in history and in contravention of Congress's stated intent, persons who (1) do not collect users' tax information as part of their business, (2) have no reason to collect tax information other than by reason of the Proposed Regulations, and (3) do not receive tax information voluntarily.

First, the Proposed Regulations define "facilitative service" to include "a service that directly or indirectly effectuates a sale of digital assets." Because the Proposed Regulations do not offer any clarity on the outer bounds of "indirectly,"[19] the term "facilitative service" has no discernible limits. The laundry list of facilitative services in the Proposed Regulations appears to confirm the term's limitlessness by casting such a wide net as to include informational services,[20] information transmission services,[21] and marketplace availability services.[22]

Second, the Proposed Regulations provide that the "position to know" standard is satisfied if the person offering "facilitative services" has "the ability" to "request" a user's identifying information and to determine whether a transaction gives rise to gross proceeds.[23] Because everyone with an internet connection has "the ability" to "request" identifying information from everyone else with an internet connection, as well as "the ability" to inspect

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[18] Proposed regs. section 1.6045-1(a)(21).

[19] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[20] *Id.* ("providing services to discover the most competitive buy and sell prices").

[21] *Id.* ("providing a party in the sale with access to an automatically executing contract or protocol, providing access to digital asset trading platforms").

[22] *Id.* ("providing an automated market maker system").

[23] Proposed regs. section 1.6045-1(a)(21)(ii)(A) ("A person ordinarily would know or be in a position to know the identity of the party that makes the sale if that person maintains sufficient control or influence over the facilitative services provided to have the ability to set or change the terms under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request."); proposed regs. section 1.6045-1(a)(21)(ii)(B) ("A person ordinarily would know or be in a position to know the nature of the transaction potentially giving rise to gross proceeds from a sale if that person maintains sufficient control or influence over the facilitative services provided to have the ability to determine whether and the extent to which the transfer of digital assets involved in a transaction gives rise to gross proceeds").

the public blockchain and thereby determine whether a transaction gives rise to gross proceeds, the "position to know" standard is as boundless as the definition of "facilitative services." Moreover, under a *per se* rule, the Proposed Regulations automatically treat any "person with the ability to change the fees charged for facilitative services" as being in a position to know[24] so that virtually every for-profit business even tenuously involved in blockchain technology would be in a "position to know" and therefore be a broker under the Proposed Regulations.

While the Preamble suggests that the "position to know" standard is similar to the "ordinarily would know" standard applicable under the current broker reporting regulations,[25] no reasonable comparison of the two standards supports that view. The Proposed Regulations abandon an objective test in favor of an inquiry into whether a person has "the ability," under some set of hypothetical circumstances that might not exist in reality, to newly "request" information from third parties and assumes that the ability to request equates to the ability to obtain. This concept represents a dramatic departure from the traditional understanding of what a broker is. Historically, broker status has hinged on whether a person acted as a customer's agent or principal and *ordinarily would know* information about the customer that only those engaged in broker-like activities would know. By contrast, the Proposed Regulations would require anyone who provides *any* help with an on-chain transaction and *could theoretically* request and collect personal information to do just that—and to securely store and report the information—even if doing so would fundamentally change their business model, be prohibitively expensive, or have a ruinous effect on the goodwill of users of their products.

It is unclear, for example, why Google's search engine is not a broker under the limitless scope of the Proposed Regulations. First, if a user searches for information on how to exchange a digital asset and Google provides instructions on how to do so, Google has "indirectly" effectuated the exchange and therefore provided "facilitative services." Second, because Google has "the ability" to "request" a user's identifying information and to determine whether the user's on-chain transaction occurs and gives rise to gross proceeds, Google is in a "position to know" the user's identity and whether and the extent to which the user's transfer of digital assets gives rise to gross proceeds. Moreover, because Google has "the ability to change the fees charged" for its facilitative services, either by changing its ad revenue model or by pay-walling its search engine, Google is in a "position to know" under the Proposed Regulations' *per se* rule. Clearly, Google never would be treated as a broker under current law, yet it appears to be a broker under a plain reading of the Proposed Regulations.

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[24] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[25] *See* Preamble, Explanation of Provisions, Part I.B. ("This definition is similar to the definition in the existing regulations with respect to agents."); reg. section 1.6045-1(a)(10)(i).

Because the Proposed Regulations' interpretation of "broker" to include "digital asset middleman" is limitless in scope and manifestly contrary to the plain language of Section 6045(c)(1)(D), it is arbitrary and capricious under the Administrative Procedure Act.[26]

II. The category "digital asset middleman" is both vague and overbroad

The Proposed Regulations' definition of "digital asset middleman" is vague to the point of being unintelligible. What does it mean to "indirectly effectuate" a sale, or to provide "access to" smart contracts or protocols? What is a "platform" and what does it mean to provide "access to" one? What is a "system" and what does it mean to provide one? What are "services to discover the most competitive buy and sell prices"—do they include, for example, Google, CoinMarketCap, and CNN? These questions all relate just to the definition of "facilitative services" contained in regulations section 1.6045-1(a)(21)(iii)(A). The definition of "position to know" and the examples relating to "digital asset middleman" raise a multitude of additional questions, as further discussed in Part VIII.

Further, the definition is overbroad. Any attempt to construe "digital asset middleman" in a practical manner, taking into account statements made in the Preamble, inexorably leads to the conclusion that the Proposed Regulations could treat *every* participant in the blockchain technology stack as a broker.

In an effort to illustrate these dual problems, while potentially paving the way for a more productive dialogue with the Treasury and the IRS in the future, Part VIII describes the execution of a typical DeFi transaction from start to finish, from the perspective of a user, and comments on why each participant in the technology stack is not a broker under any historical, reasonable, or commonly understood interpretation of the term.

As Part VIII explains, broadly, there are three phases of a DeFi transaction. During the information creation phase, a user interacts with *informational services* (similar to Google, Yahoo! Finance, and Wikipedia) to build a transaction instruction. During the information transmission phase, the user directs *information transmission services* (similar to FedEx, Gmail, or internet service providers) to impartially transfer the transaction instruction to validators for inclusion on-chain. During the state change phase, a transaction is settled in accordance with the user's instruction and software deployed and governed by *marketplace availability services* (similar to stock exchanges, online peer-to-peer marketplaces, or flea markets).

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[26] *See Chevron USA Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 844 (1984) ("legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute").

The Proposed Regulations would apply to virtually every participant in the tech stack, as well as to any other technology providers who "indirectly" enable people to send messages over the internet (*e.g.*, browsers, internet service providers, and smartphone manufacturers), because the meaning of "indirectly effectuating" has no limits. As a result, the Proposed Regulations directly contradict the plain language of the statute and legislative history by treating, as brokers, providers of *informational services*, *information transmission services*, and *marketplace availability services* who, in each case, either cannot easily or cannot realistically obtain information from users.

Engaging with the details of how the DeFi space and DeFi users operate makes these points clear. Self-custodied digital assets are the online equivalent of physical cash and collectibles, and the technology stack participants described in Part VIII do not "cause" or "bring about" transfers of digital assets any more than physical banner printers, ticker tape publishers, courier services, or flea market operators "cause" or "bring about" transfers of physical cash and collectibles. As the Preamble itself recognizes, "*only* the user of an unhosted wallet has access to both the public and private keys *necessary* to effect transactions in the digital assets associated with those keys."[27] The purpose of the Internal Revenue Code's broker reporting requirements is not to compel the creation of otherwise absent intermediaries by coercing developers and users of software to upend the way they interact, and the Proposed Regulations' attempt to do so contradicts both the plain language of the statute and constitutional limits.

III. The Proposed Regulations would increase taxpayer confusion

According to the Preamble, one of the rationales for creating a new and expansive information collection and reporting regime is to provide taxpayers with sufficient information to prepare their tax returns.[28] However, if finalized in their current form, the Proposed Regulations are likely to result in significant taxpayer confusion that would actually make it more difficult for taxpayers to prepare their tax returns.

First, because the Proposed Regulations do not treat digital asset brokers as exempt recipients, taxpayers would receive multiple Form 1099s for every transaction they effectuate. Accordingly, taxpayer income is likely to be significantly overreported.

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[27] Preamble, Background, Part I (emphasis added).

[28] *See* Preamble, Background, Part IV. ("[T]axpayers use information provided to them by brokers to prepare their tax returns. The lack of such information reporting for digital assets may make it difficult for taxpayers to properly track and report their gain or loss from dispositions of digital assets.").

Second, because there remain significant questions about the U.S. tax treatment of typical DeFi transactions, taxpayers are likely to receive incorrect or inconsistent information depending on how brokers interpret U.S. tax law. For example:

- **Wrapping.** "Wrapping" involves depositing one token (such as ETH) into a smart contract in exchange for a 1:1 pegged representation of the same token (such as wETH). DeFi users can wrap or unwrap a token by (1) interacting directly with the wrapping software, (2) exchanging the token for its wrapped counterpart on a decentralized exchange, or (3) engaging a transaction that automatically wraps or unwraps a token within a series of actions. Wrapping is very common in DeFi; as of November 2022, over 7% of all Ethereum transactions, or about 125 million transactions, involved wETH.[29] While most tax practitioners believe wrapping transactions are nontaxable because a token and its wrapped version are not materially different in kind or in extent,[30] because a token and its wrapped version are each digital assets within the meaning of the Proposed Regulations, brokers might report an exchange of a token for its wrapped token on Form 1099, resulting in overreporting.

- **Liquidity provision.** As discussed in Part VIII.C.2., the U.S. tax treatment of liquidity provision is unknown. Some brokers might report liquidity provision as a taxable exchange; others might report the underlying transactions as multiple taxable exchanges.

- **Token borrowing.** In a DeFi borrowing protocol, users who contribute tokens to a smart contract can "borrow" other tokens from the smart contract up to a percentage of the value of the tokens they contributed, and can reacquire tokens identical to the ones they contributed by replacing the borrowed tokens and paying a time-based usage fee.[31] The U.S. tax treatment of on-chain token borrowing is unknown. Under one theory, token borrowing is an exchange of one token for another, and therefore is a taxable exchange. Under an alternative theory, token borrowing is a deferred exchange of property for identical property and therefore is nontaxable under the same principles that led to the enactment

[29] *See* Stephen Tong, *Formally Verifying the World's Most Popular Smart Contract* (Nov. 18, 2022) ("As of block 15934960 (November 9, 2022), WETH has been in 125,581,756 transactions. This count includes all 'top-level' transactions which call the WETH contract at any point, including via an internal transaction."), https://www.zellic.io/blog/formal-verification-weth/.

[30] *See, e.g.*, Jason Schwartz, *Taxation of Decentralized Finance*, Tax Notes (Feb. 7, 2022), https://www.friedfrank.com/uploads/siteFiles/Publications/Schwartz%20%2802-07-2022%29.pdf.

[31] DeFi borrowing protocols are discussed in greater detail in Part VIII.C.2.

> of section 1058. The broker classification of many market participants could turn on the U.S. tax treatment of on-chain token borrowing. If on-chain borrowing triggers a tax event, front ends for DeFi borrowing protocols are likely to be brokers. If it is not, a further question arises as to whether a smart contract's liquidation of a borrower's collateral if its value falls below a specified threshold nevertheless causes the front end to be a broker.

The Preamble recognizes that the tax treatment of the above transactions remains uncertain, and requests comments on their treatment.[32] However, without official guidance from the IRS, tech stack participants and their tax counsel are likely to reach conflicting views as to whether they are brokers and which transactions are required to be reported, depending on how they believe the above transactions are treated for U.S. tax purposes.

Given that tax professionals at large internationally recognized law and accounting firms are unable to comfortably conclude how the most common DeFi transactions are treated for U.S. tax purposes, the average taxpayer will fare no better. Accordingly, the Treasury's suggestion that the Proposed Regulations would make it easier to prepare tax returns does not ring true. A far more likely outcome is that taxpayers (and the IRS) would be inundated with confusing and contradictory information.

IV. The Proposed Regulations violate the Fourth Amendment

If finalized in their current form, the Proposed Regulations would violate the Fourth Amendment's prohibition on warrantless searches and seizures of a person's papers and effects because users of "facilitative services" do not currently turn over the personal information brokers would be required to report, and providers of those "facilitative services" do not have any reason to collect that information.

The Fourth Amendment to the U.S. Constitution guarantees "the right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures." That guarantee is foundational in preserving the privacy and security of American citizens against arbitrary invasions by governmental authorities.

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[32] *See* Preamble, Explanation of Provisions, Part I.C. ("[T]hese proposed regulations do not specify whether a loan of digital assets is required to be reported. These proposed regulations also do not specifically address whether reporting is required for transactions involving the transfer of digital assets to and from a liquidity pool by a liquidity pool provider, or the wrapping and unwrapping of a digital asset, in light of the absence of guidance on those transactions. Comments are requested on whether the definition of sale or other parts of the regulations should be revised to address transactions not described in these proposed regulations.").

In *Katz v. United States*, the Supreme Court explained:

> What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.[33]

Thus, the government *can* constitutionally compel telephone companies to report phone numbers dialed by customers without a warrant because those customers "voluntarily convey" that information and the companies have a "legitimate business purpose" for collecting it.[34] However, the government *cannot* constitutionally compel telephone companies to turn over customer location data gleaned from cell phone tower connections, because "in no meaningful sense does the user voluntarily assume the risk of turning over a comprehensive dossier of his physical movements," and the companies do not need individualized customer location data to connect calls.[35]

When old rules meet new technology, courts must "assur[e] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted."[36] Blockchains enable users to transact on a peer-to-peer basis without relying on trusted intermediaries. The Proposed Regulations attempt to force those users into an intermediated regime without considering their constitutional right to privacy. Any assertion that users would voluntarily turn over their names, addresses, social security numbers, and other personal information to "digital asset middlemen" runs crosswise with the explicitly stated goal of the Proposed Regulations: to require "digital asset middlemen" to newly collect and report users' information when they were not already doing so.

Because individuals do not voluntarily turn over their personal data to "digital asset middlemen," and because those persons neither collect nor have any legitimate business reason to collect that information, the Proposed Regulations' requirement that "digital asset middlemen" collect and turn over that information without a warrant violates the Fourth Amendment.

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[33] 389 U.S. 347, 351 (1967).

[34] *Smith v. Maryland*, 442 U.S. 735, 743-45 (1979).

[35] *See Carpenter v. United States*, 138 S. Ct. 2206, 2220 (2018) ("[T]his case is not about 'using a phone' or a person's movement at a particular time. It is about a detailed chronicle of a person's physical presence compiled every day, every moment, over several years.").

[36] *Kyllo v. United States*, 533 U.S. 27, 34-35 (2001).

V. The Proposed Regulations violate the Fifth Amendment

The Proposed Regulations violate the Fifth Amendment because they are impermissibly vague. The Fifth Amendment prohibits the government from depriving any person of "life, liberty, or property, without due process of law." According to the Supreme Court, "[i]t is a basic principle of due process that an enactment is void for vagueness if its prohibitions are not clearly defined."[37]

The Proposed Regulations are unconstitutionally vague for two reasons. First, they are impossible to apply in practice, leaving software developers and other market participants to guess as to their meaning and application.[38] If a person of reasonable intelligence cannot figure out whether they would be subject to penalties for failing to file Form 1099s, they cannot plan accordingly and do not have fair warning of any penalties they might incur for noncompliance.[39]

Second, as discussed in Part II, the limitlessness of the Proposed Regulations' definition of "digital asset middleman" allows for arbitrary and discriminatory enforcement.[40] Based on the breadth of "facilitative services" and the "position to know" standard, the proposed broker definition would cover such far-flung market participants as internet browsers, internet service providers, and smartphone manufacturers. The Proposed Regulations thus would give the IRS unfettered discretion to wield its enforcement authority to decide what types of businesses survive or fail.

VI. The Proposed Regulations would unduly strain government resources

The Proposed Regulations are likely to put an unprecedented burden on the IRS. Based on the IRS's own recent estimate, the Proposed Regulations would result in at least 8 billion additional information returns annually.[41] That estimate is more than 551 times greater than the

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[37] *Grayned v. City of Rockford*, 408 U.S. 104, 108 (1972).

[38] *See Connally v. General Construction Co.*, 269 U.S. 385, 391 (1926) ("A statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to it application, violates the first essential of due process of law.").

[39] *Id.*; *see also United States v. Merriam*, 263 U.S. 179, 188 (1923) ("If the words are doubtful, the doubt must be resolved against the government and in favor of the taxpayer.").

[40] *See Grayned,* 408 U.S. at 108 ("[I]f arbitrary and discriminatory enforcement is to be prevented, laws must provide explicit standards for those who apply them. A vague law impermissibly delegates basic policy matters to policemen, judges, and juries for resolution on an ad hoc and subjective basis, with the attendant dangers of arbitrary and discriminatory application.").

[41] *See* Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp (reporting statements by Julie Foerster, IRS director of digital assets).

Preamble's estimate of 14.5 million additional information returns.[42] By comparison, the IRS processed only 3.2 billion *total* information returns in 2020.[43]

Even the IRS's own recent estimate is likely to be conservative if it does not include many persons the Proposed Regulations appear to treat as brokers, such as RPC node managers, layer 2 aggregators, block builders, smart contract deployers, liquidity providers, and holders of governance tokens (each of which is described in Part VIII), and it does not account for the likelihood that each transaction effected on-chain will be reported by multiple digital asset brokers. An estimate that includes those parties and allows for duplicative reporting could be multiple orders of magnitude greater than 8 billion.

The Preamble also fails to consider the costs to the IRS of the significant market outreach that it would be required to perform under the Proposed Regulations. As discussed in Part VIII, most of the persons who would be "digital asset middlemen" under the Proposed Regulations are leanly staffed financial technology firms. Even assuming these firms were capable of complying with the Proposed Regulations, the Treasury's cost estimates for implementing the Proposed Regulations must consider what additional resources it would have to expend on educating them as to how compliance might be possible.

As a threshold matter, we respectfully request that the IRS release for comment its revised analysis of the additional returns the Proposed Regulations would generate.

VII. The Proposed Regulations would impose a disproportionate and unbearable financial burden on businesses

The Treasury and the IRS have failed to fully consider and disclose the expected costs of the Proposed Regulations to so-called "digital asset middlemen."

As mentioned above, the Preamble estimates that the Proposed Regulations would generate an additional 14.5 million additional information returns annually.[44] On that basis, the Preamble estimates that the Proposed Regulations would impose an annualized cost on brokers of $136,350,000 in the aggregate, or $27,000 per broker, in each case disregarding startup costs. However, the IRS has recently revised its estimate of 14.5 million additional information returns

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[42] *See* Preamble, Special Analyses, Part II.

[43] IRS Statement, *Information Returns*, https://www.irs.gov/newsroom/irs-statement-information-returns (May 13, 2022).

[44] *See* Preamble, Special Analyses, Part II.

annually under the Proposed Regulations to 8 billion.[45] Based on the IRS's own expectation that each Form 1099-DA would cost $9.40 to generate,[46] the updated estimate of 8 billion new information returns annually means the Proposed Regulations would impose an annualized cost on brokers of approximately $75.2 billion in the aggregate, or $14.9 million per broker, in each case disregarding startup costs.[47]

In addition, whereas the Preamble estimates approximately 2.15 million aggregate hours of compliance costs, or 425 hours per broker (*i.e.*, 1,034 full-time jobs, assuming a 40-hour workweek),[48] the IRS's revised expectation that the Proposed Regulations would generate 8 billion new forms each year means the Proposed Regulations would impose approximately 1.2 billion aggregate hours of compliance costs, or 237,623 hours per broker.[49] That is the equivalent of nearly 600,000 new full-time jobs, assuming a 40-hour workweek.

Moreover, because the Preamble's cost and time estimates are "based on survey data collected from filers of similar information returns,"[50] whereas most of the persons treated as brokers under the Proposed Regulations' definition of "digital asset middleman" are leanly staffed financial technology firms without any preexisting infrastructure for requesting, collecting, storing, or reporting personal data, those estimates are likely to have been grossly optimistic. Accordingly, based on the IRS's own estimates, it is highly probable that, in many situations, the Proposed Regulations would impose insurmountable costs on market participants that deprive them of the ability to continue operating as going concerns.

VIII. No participants in the DeFi technology stack are brokers

This section examines the Proposed Regulations in the context of how DeFi protocols and market structure exist today. It is critical to note, however, that DeFi is a nascent technology

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[45] *See* Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp (reporting statements by Julie Foerster, IRS director of digital assets).

[46] *See* Preamble, Special Analyses, Part II (assuming 14.5 million Form 1099-DA recipients, 5,050 brokers, and $27,000 ongoing annual compliance costs per broker). 14.5 million forms ÷ 5,050 brokers = approximately 2,871 forms per broker. $27,000 annual compliance costs per broker ÷ 2,871 forms per broker = approximately $9.40 per form.

[47] 8 billion forms annually × $9.40 per form = $75.2 billion annualized costs. $75.2 billion annualized costs ÷ 5,050 brokers = $14,891,089 annualized costs per broker.

[48] *See* Preamble, Special Analyses, Part II (estimating 0.15 hours per form).

[49] 0.15 hours per form × 8 billion forms = 1.2 billion total hours. 1.2 billion total hours ÷ 5,050 brokers = 237,623 total hours per broker.

[50] Preamble, Special Analyses, Part II.

and market, having existed for only five years, and this section cannot be treated as an evergreen description and analysis of what is a rapidly evolving sector.

Attempting to apply the Proposed Regulations in practice to the current participants and technologies in DeFi clearly illustrates how vague and expansive the Proposed Regulations are. The technology stack is divided into three phases: (1) information creation; (2) information transmission; and (3) state change.

During the information creation phase, a user, often with the help of a front end and/or wallet application, generates a call function to effectuate a change to the state of the blockchain and packages the call function with a digital signature establishing their authority to effectuate the state change. Front end administrators and wallet application developers are not brokers because they are providers of *informational services* (similar to Google, Yahoo! Finance, and Wikipedia) who provide data in response to user inputs, and who can obtain personal information from users only by dramatically changing the way they do business.

During the information transmission phase, the call function and digital signature generated in the information creation phase are transmitted via an RPC node to a transaction pool. If the user is transacting on a blockchain's "base layer," or **layer 1**, block builders aggregate data from the transaction pool into block templates, and validators propose and settle those block templates to the blockchain in accordance with a consensus mechanism. If the user is transacting on a blockchain scaling solution (commonly called a **layer 2**), an analogous process first occurs on the layer 2 before the resulting data is submitted to the underlying blockchain's transaction pool. Remote procedure call nodes, block builders, validators, and layer 2 aggregators are not brokers because they are providers of *information transmission services* (similar to FedEx, Gmail, or internet service providers) who impartially transmit transaction data, and who cannot obtain personal information from users.

During the state change phase, the state of the blockchain changes in response to the settlement of a new block that includes a user's call function. If the call function implicates one or more smart contracts, those smart contracts automatically perform the operations they were coded to perform in response to the call function. Smart contract developers, liquidity providers, and protocol stewards are not brokers because they are providers of *marketplace availability services* (similar to stock exchanges, online peer-to-peer marketplaces, or flea markets) who provide forums in which users can transact, and who cannot obtain personal information from users.

A. Information creation phase

1. Front end administrators

a) Background on front end administrators

The vast majority of DeFi users interact with a front end, which is a user interface that makes it easier to interact with the relevant smart contracts. Smart contracts are self-executing pieces of code that live on a blockchain.

Front ends often are colloquially referred to as "websites," a term used in the Proposed Regulations. We use the term front end because it captures not only visual elements (i.e., the website) but also the code that powers interactive features like forms, buttons that trigger actions, and dynamic page updates without full page refreshes.

A DeFi front end typically serves two roles: browser and data object generator.

- In its browser role, the front end shows the user information about the state of the blockchain relating to a set of DeFi smart contracts and provides an intuitive user interface to indicate what actions they would like to perform through the smart contracts.

- In its data object generator role, the front end translates a user's input into a data object, i.e., a set of data with the necessary information to submit a transaction for inclusion on-chain. Typically, DeFi front ends with data object generators include a "connect wallet" button, which, when selected, establishes a secure connection between the front end and the user's crypto wallet. The data object generator uses that connection to send the data object to the user's wallet, which the user might or might not submit through their wallet for inclusion on-chain.

Crucially, a front end does not monitor whether a user will deploy a data object they received, just like an encyclopedia does not monitor whether a reader uses information they gleaned from its pages. Any deployment of a data object to the blockchain is done through the user's crypto wallet, without the front end's involvement.

Front end administrators for DeFi websites might receive trade-based fees or might instead receive periodic payments under a services agreement from a DeFi governance organization, like a foundation or decentralized autonomous organization (**DAO**), set up to steward the underlying smart contracts.[51] While a front-end administrator might collect data on

[51] Protocol governance is discussed in Part VIII.C.3.

protocol use (such as number of transactions and average transaction size) in setting their fees under their services agreement, the data is anonymized by blockchain technology, does not approach the level of specificity that would make it helpful in complying with the Proposed Regulations, and only tenuously reflects actual front end use, since some users access the relevant smart contracts directly or through different front ends.

Front end administrators for block explorers usually do not receive any remuneration from smart contracts or DeFi governance organizations, and instead profit from advertising revenues and donations. Block explorers are, primarily, visual interfaces for viewing and querying any of a blockchain's data. Most block explorers also act as data object generators, but require considerable sophistication to use.[52] Their administrators have no reason to collect information on who uses the front ends' data object generators.

b) Front end administrators are not brokers because they do not "effectuate transfers"

As explained above, a DeFi front end's data object generator translates user input into a data object that can be fed into a separate wallet application and then transmitted by the wallet for inclusion on-chain should the user decide to do so.[53] Generating a data object is an *informational service* like Google, Yahoo! Finance, or Wikipedia. In each case, the informational service's purpose is to generate and display information in response to user inputs; the provider of the informational service neither cares nor has any reason to care whether or how the user actually uses the information.

Neither the Proposed Regulations nor the Preamble sufficiently explain the point at which an informational service rises to the level of a "service effectuating transfers" within the meaning of section 6045(c)(1)(D). Instead, the Preamble enigmatically provides that the Proposed Regulations "will ultimately require operators of some platforms generally referred to as decentralized exchanges to collect customer information and report sales information about their customers."[54] While that is one of 138 appearances of the term "platform" in the Preamble and Proposed Regulations, the term is never defined.

The Proposed Regulations are similarly confounding. Under Proposed Regulations section 1.6045-1(b)(1), example 1(ix), a person generally is a broker if they are in a business of

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[52] *See, e.g.*, Fang Jun, *How to Interact with Smart Contracts*, Web3 University, https://www.web3.university/article/how-to-interact-with-smart-contracts (Feb 9, 2022) (describing how to "write" to Ethereum through block explorer Etherscan).

[53] Transmission is made through an RPC node, as described in Part VIII.B.1.

[54] Preamble, Explanation of Provisions, Part I.B.

operating a "website that stands ready to effect sales of digital assets for others…including by providing access to automatically executing contracts, protocols, or other software programs." As explained above, DeFi front ends never "provide access" to contracts, protocols, or other software programs—they generate data objects—so it is unclear what the IRS has in mind.

Even if DeFi front ends *did* provide access to smart contracts—which they don't—it is far from clear why front end administrators would be brokers. As both the current regulations and Proposed Regulations acknowledge, "a person (such as a stock exchange) that merely provides facilities in which others effect sales" is not a broker.[55]

If generating data objects constitutes standing ready to effect sales of digital assets for others, the Proposed Regulations leave it to market participants and their counsel to guess whether there are any limitations at all to "indirectly effectuating" a sale of digital assets. For example:

- Would any front end that posts data objects into a connected wallet be treated as providing a facilitative service, even if a typical user would need to consult a tutorial to determine how to coax the front end into posting the desired data object?[56] Would the tutorials themselves also be treated as facilitative services?
- Assume a front end dynamically generates a data object in response to a user's inputs but does not allow the user to connect their wallet to it, so that the user has to copy and paste the object into their wallet if they want to use it. Would the front end be treated as providing a facilitative service?
- Would a static front end that merely explains how to write a blockchain call function into a crypto wallet be treated as providing a facilitative service?

Without articulating a clear standard for "facilitative service," the Proposed Regulations do not provide taxpayers with sufficient notice as to whether they are brokers and, correspondingly, how they might avoid broker status.

c) Front end administrators are not brokers because they have no reason to know users' personal information

It is hard to overstate what a profound change the Proposed Regulations' practically unlimited "position to know" standard would require to the business models of front end

[55] Regs. section 1.6045-1(b) Ex. 2(ii); proposed regs. section 1.6045-1(b)(2) Ex. 2(ii).

[56] *See, e.g.*, Fang Jun, *How to Interact with Smart Contracts*, Web3 University, https://www.web3.university/article/how-to-interact-with-smart-contracts (Feb 9, 2022).

administrators who wish to continue to allow U.S. persons to access their front ends. Currently, even a mere techno-tinkerer can spin up a front end; ChatGPT can get even a complete Luddite most of the way there.[57] Deeming those persons to be brokers merely because, in theory, they *could* have built front ends that geoblock users who fail to provide identifying information is likely to require many of them to spend more resources requesting, collecting, managing, and securing information than they spend actually conducting their current business.

The Proposed Regulations also would expose innocent users to new and unnecessary cybersecurity risks. As the Preamble acknowledges, "digital asset brokers are not necessarily subject to the type of prudential or supervisory regulation" as brokers under current law.[58] Notwithstanding that acknowledgement, the Proposed Regulations deputize those persons to request, collect, and store taxpayers' names, social security numbers or other taxpayer identification numbers, and public blockchain addresses. While even well-meaning front end administrators are likely to fall victim to security breaches, a predictable effect of the finalization of the Proposed Regulations in their current form would be the proliferation of "spoof" front ends set up by nefarious actors to harvest users' personal data. A common tactic among scammers is to create front ends that imitate the official versions and link them to similar addresses (e.g., addresses that end with ".com" instead of ".io," or that replace one or more Latin letters with similar looking Cyrillic letters).[59] Users would have no reason to question a spoofed front end's request for their personal details if the IRS requires it.

The association of a public blockchain address with an individual's identity does not merely reveal mundane financial transactions; it also can provide a gateway into highly intimate life details, such as net worth, personal associations and preferences, and charitable contributions. Requiring persons who do not collect tax information as part of their business to set up systems to request and safely store those details thus jeopardizes the security of millions of Americans' personal data.[60]

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[57] For illustration, we urge personnel at the IRS to query ChatGPT-4 with a prompt such as: "Write me a front end for Uniswap that enables me to swap ETH for an equal amount of wrapped ETH."

[58] *See* Preamble, Explanation of Provisions, Part I.H.

[59] *See, e.g.*, Alex Scroxton, ComputerWeekly.com, *Rise in Fraudsters Spoofing the Websites of Leading UK Banks* (Aug. 7, 2023), https://www.computerweekly.com/news/366546952/Rise-in-fraudsters-spoofing-the-websites-of-leading-UK-banks.

[60] Coinbase estimates 50 million Americans currently own crypto. *See* Coinbase Blog, *New survey of 2,000+ American adults suggests 20% own crypto and the vast majority see an urgent need to update the financial system*, https://www.coinbase.com/blog/new-national-survey-of-2-000-american-adults-suggests-20-of-americans-own (Feb. 27, 2023).

2. Crypto wallet providers

a) Background on crypto wallet providers

Each pseudonymous blockchain address has an associated private key. Both the address and private key are long strings of alphanumeric characters. To send tokens or interact with a smart contract from a specific blockchain address, a DeFi user must produce a digital signature, which cryptographically proves that they know the associated private key without revealing the key to anyone else.

Crypto wallets are devices or software applications that (1) store a DeFi user's private keys; (2) enable the user to transact from their blockchain address by entering a memorable password or pin code into the wallet instead of their private key; and (3) generate a digital signature when required. Broadly, there are two types of crypto wallets: hardware wallets and software wallets.

(1) Hardware wallets

A hardware wallet stores a user's private key in a secure element isolated from the internet and the user's personal computer. Users unlock their hardware wallets by entering a password or pin code directly on the device. When a user wants to submit a transaction for inclusion on-chain, their hardware wallet generates a digital signature using the stored private key. The signature is then transmitted to a companion wallet application, typically via a USB connection or Bluetooth.

A wallet application is software that, like a DeFi front end, includes a browser role and a data object generator role. The browser offers an intuitive interface that allows users to view their balances, transaction histories, and other relevant information related to their crypto assets. The data object generator pairs a call function (e.g., the data object received from a DeFi front end) with the digital signature generated by the hardware wallet, then submits the package for inclusion on-chain.

Most hardware wallet providers publish their own wallet application software. However, users are not required to use that software and can use any wallet application with their hardware wallet.

(2) Software wallets

A software wallet stores the user's private key in a software file on a computer or mobile device instead of isolating it in a secure element, and includes a built-in wallet application. Users unlock their software wallets by entering a password or pin code directly into the wallet application. When a user wants to submit a transaction for inclusion on-chain, the application

generates a digital signature using the stored private key. It then pairs that digital signature with the relevant call function and transmits the package for inclusion on-chain.

The vast majority of crypto wallets do not charge fees for receiving data objects from front ends, packaging them with digital signatures, and transmitting them for inclusion on-chain. However, crypto wallet applications often integrate DeFi front-end application programming interfaces (**APIs**) to enhance the user experience,[61] and charge fees when users leverage the integration.

For example, many wallet applications contain a built-in token swap feature. When a DeFi user clicks an "in-wallet swap" button, the wallet application queries the APIs of several popular DeFi front ends, whose browser functions return information about the price of executing a token swap through the smart contract protocols they monitor. The wallet application's user interface displays the information it receives and offers the DeFi user the option of simply submitting a transaction using a data object transmitted by one of the queried APIs. If a user elects to effect their transaction without visiting the chosen front-end themselves, their wallet application typically debits from their funds a "licensing fee" for using the wallet provider's information aggregation software, in addition to any other transaction costs they incur in the transaction.

While a wallet developer might collect data on the frequency with which third-party APIs are called, the data is anonymized by blockchain technology and does not approach the level of specificity that would make it helpful in complying with the Proposed Regulations.

b) Crypto wallet providers are not brokers under any reasonable interpretation of the term

The application of the Proposed Regulations to crypto wallet providers shares the same deficiencies as those for front end administrators: lack of clarity and overbreadth.

Proposed Regulations section 1.6045-1(b) contains three examples relating to crypto wallet providers—examples 21-23. The examples suffer from a casual use of undefined terms and again leave taxpayers and their counsel unable to determine whether there are any limits to "indirectly effectuating" a sale.

[61] An API is a set of functions and procedures allowing access to the features or data of an operating system, application, or other service.

Under example 21, a hardware wallet developer is not a broker if users are required to use a third party's "connecting software."[62] Similarly, under example 23, a software wallet developer is not a broker if the wallet lacks "wallet connection services." The Proposed Regulations do not define "connecting software" or "wallet connection services," and the terms' meanings are not self-evident.

Adding confusion, the outcome in example 23 seems to turn on the assumption that users of the hypothetical software wallet "initiate" trades on a third-party "platform," which provides the wallet with "functionality" to execute a trade. As mentioned above, the term "platform" is used 138 times in the Preamble and Proposed Regulations (34 times in the Proposed Regulations alone), but is never defined. If "platform" means a front end, it cannot have "initiated" a trade; front ends generate data objects, and users of software wallets initiate trades through the associated wallet application, which does not need a front end to provide it with "functionality." Accordingly, the purpose and effect of example 33 is a mystery.

By contrast, under example 22, a software wallet developer *is* a broker if their wallet application integrates DeFi front-end APIs for token swaps to enhance the user experience.[63] (The example also assumes the developer "requests each user's name, address, and tax identification number," but, given the breadth of "position to know," it is unclear why that assumption is made.) Example 22 raises the question whether inclusion of an API integration results in a "cliff effect" that makes a wallet developer a broker for *all* transactions effected using that wallet, even for users who do not leverage the API integration.

Assuming the Proposed Regulations intend to treat a wallet application's data object generator as a facilitative service, that treatment is inappropriate for the exact same reasons articulated above for why treating a front end administrator as a broker is inappropriate. A wallet application's data object generator simply aggregates several front-end APIs, so it would be nonsensical to treat a wallet application as a broker if DeFi front ends are not brokers. The wallet application's imposition of a fee for users who opt not to visit the associated front ends themselves does not alter the analysis; providers of informational services do not have to be nonprofit organizations to avoid broker status.

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[62] *See also* proposed regs. section 1.6045-1(b), Ex. 2(x) ("a person solely engaged in the business of selling hardware or licensing software, the sole function of which is to permit a person to control private keys which are used for accessing digital assets on a distributed ledger, without providing other functions or services," is not a broker).

[63] The example describes the API integration as "a digital asset trading service…that compares pricing at several unrelated non-custodial trading platforms to facilitate access to the most competitive buy and sell prices offered by these unrelated platforms."

Moreover, as with front ends, the Proposed Regulations' expansive "position to know" standard would require wallet software developers to profoundly change their business models. Currently, most of those developers build wallets that employ a "freemium" model, whereby the core wallet software is free but licensing fees are charged if (1) the software queries DeFi front end APIs in response to user inputs and (2) the user deploys one of the data objects retrieved from the query. Deeming software developers to be brokers merely because, in theory, they *could* have built wallets that geoblock users who fail to provide identifying information is likely to require them to materially modify the way they do business if they wish to continue making their software available to U.S. persons. As in the case of front ends, it also would jeopardize the security of millions of Americans' personal data.

B. Information transmission phase

1. Remote procedure call (RPC) node managers

a) Background on RPC nodes and RPC node managers

RPC nodes are servers that, within the context of a transaction's order of operations, impartially relay information from a crypto wallet to a blockchain's transaction pool, or "mempool," which is a repository of pending transaction requests. RPC nodes also relay information about the state of the blockchain to front ends and wallet applications, often for a fee if the RPC node manager is a third party. RPC node managers may be third party service providers, wallet providers running their own RPC nodes, or hobbyists running their own RPC nodes.

Third-party RPC node managers who transmit data for wallet applications for a fee do not have contractual privity with the users of those wallet applications and thus have no way of determining those users' identities. Moreover, while RPC node managers theoretically have the ability to inspect the raw data submitted to them for transmission to a transaction pool, determining the intent and ultimate effect of that data would require a deep understanding of the technical details of each smart contract implicated by the data, and of the context within which the relevant raw data is being submitted. Considering that a blockchain typically hosts tens of millions of smart contracts,[64] each potentially with its own semantics, and that the

[64] For illustration, 4.6 million new smart contracts were deployed to Ethereum in the fourth quarter of 2022 alone. *See* Andrew Asmakov, DeCrypt, *Ethereum Smart Contracts Deployment Jumped 293% in 2022: Alchemy Developer Report* (Jan 17, 2023), https://decrypt.co/119371/ethereum-smart-contracts-deployment-jumped-293-2022-alchemy-developer-report.

effects of those contracts include tremendous variability,[65] RPC node managers generally cannot in practice track the effects of every data object they transmit on behalf of others.

b) RPC node managers are not brokers under any reasonable interpretation of the term

Neither the Proposed Regulations nor the Preamble mention RPC nodes, so it is unclear whether the Treasury and the IRS contemplated the potential application of the Proposed Regulations to them. However, the apparent breadth of the definition of facilitative services raises the possibility that mere *information transmission* is a facilitative service. If RPC node managers are treated as providing a facilitative service by virtue of transmitting call functions from a wallet application to a transaction pool, the Proposed Regulations' *per se* rule that treats someone with "the ability to change the fees charged for facilitative services" as being in a "position to know" would cause them to be brokers.

Treating RPC node managers as providing a "service effectuating transfers of digital assets on behalf of another person" within the meaning of section 6045(c)(1)(D) would be tantamount to treating courier services like FedEx, or email clients like Gmail, as providing a service effectuating transfers merely because someone might transmit purchase or sale requests through them. In each case, the information transmitter impartially relays information from a source to a destination in exchange for a fee that does not take the nature of the information into account. Moreover, in each case, the information transmitter has no business reason to know the identities of the senders or the nature of the information transmitted and, as a practical matter, are unlikely to be able to retrieve that information.

As discussed in Part VIII.B.3, the Proposed Regulations exclude validation services from the definition of facilitative services because validators "may not be in a position to know the identity of the parties making a sale and the nature of the transaction."[66] It would be internally inconsistent for the Proposed Regulations to exclude validators from the broker status but to include RPC node managers, who likewise are not in a position to know the identity of the parties making a sale and the nature of the transaction.

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[65] *See, e.g.*, Polygon Labs, *The Value Prop*, https://thevalueprop.io/database (open database of on-chain applications).

[66] Proposed regs. section 1.6045-1(a)(21)(iii)(A); Preamble, Explanation of Provisions, Part I.B.

2. Block builders

a) Background on block builders

In some blockchain networks, block builders organize blockchain order flow (e.g., transactions transmitted to a blockchain's transaction pool) into block templates. Block templates are blocks that have not yet been proposed by a validator and settled to a blockchain in accordance with its consensus mechanism. Validators might be block builders, or might outsource the block building role to specialists.

b) Block builders are not brokers under any reasonable interpretation of the term

Block builders perform a critical role in the transmission of information from a transaction pool to a blockchain. Treating them as brokers would directly violate both the Colloquy's imperative not to treat persons "who play a key role in validating transactions" as brokers[67] and the Treasury's own commitment not to treat "ancillary parties who cannot get access to information that is useful to the IRS" as brokers.[68]

Nevertheless, the absence of any clear limitation on "indirectly effectuating" a sale suggests that block builders provide facilitative services within the meaning of the Proposed Regulations. The possibility that block builders are brokers under the Proposed Regulations underscores just how unreasonably vague and overbroad the Proposed Regulations are as currently drafted.

3. Validators

a) Background on validators

In proof-of-stake networks like Ethereum and Solana, validators (in their block proposer roles) lock up, or "stake," a material amount of a blockchain's native token in a smart contract and run open-source validator software on their computers. The software selects validators at random to propose new block templates for inclusion on the blockchain. Of those validators not selected, the software selects several to vote on block proposals; those "attesters" generally must approve a proposed block if it does not contain falsified information like unsigned transactions.

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[67] *See* Colloquy ("We want to be sure that miners and stakers and others who play a key role in validating transactions now or in the future, or hardware and software sellers for digital wallets will not be subject to the rules for those activities. Again, you will need to provide the information reporting only if you are functioning as a broker.").

[68] *See* Treasury Letter.

Participating validators are rewarded for good behavior (i.e., proposing valid blocks and maintaining uptime) and risk having all or a portion of their stake destroyed if they misbehave. Rewards are credited to validators in the blockchain's native token. On the Ethereum blockchain, validator rewards consist of newly minted ETH and priority gas fees. Newly minted ETH represents the majority of the rewards. Priority gas fees are fees some users pay in excess of a mandatory "base fee" for faster inclusion in a block.

b) Validators are not brokers, even if they engage in block building, RPC node management, liquid staking, or similar arrangements

As mentioned above, the Colloquy explicitly cautions that persons "who play a key role in validating transactions" are not brokers. Presumably in response to that admonition, the Proposed Regulations exempt from the definition of facilitative services "validating distributed ledger transactions…without providing other functions or services if provided by a person solely engaged in the business of providing such validating services."[69] However, the Proposed Regulations do not define validating services, so it is unclear what it means to be "solely engaged in the business of providing such validating services." For example, are validators "solely engaged in the business of providing such validating services" if they also (1) run an RPC node, (2) build their own blocks instead of outsourcing that role to specialists, and/or (3) participate in liquid staking protocols?[70]

Moreover, although the validator exclusion appears in the Proposed Regulations' definition of facilitative services,[71] the Preamble justifies the exclusion by explaining that validators "may not be in a position to know the identity of the parties making a sale and the nature of the transaction."[72] That justification evidences the Treasury's determination that there *is* a limit to being in a "position to know." However, the Proposed Regulations do not articulate any such limit, and we are unable to discern a limit from the language of the Proposed Regulations. Moreover, it is not at all clear why validators are less likely to be in a "position to know" than the other participants in the technology stack described in Part VIII. We respectfully request that the Treasury articulate the contours of the "position to know" standard in a manner that enables it to be applied coherently by potentially affected parties.

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[69] Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[70] RPC nodes, block builders, and liquid staking protocols are discussed in Part VIII.B.1., VIII.B.2., and VIII.C.2., respectively.

[71] *See* Proposed regs. section 1.6045-1(a)(21)(iii)(A).

[72] Preamble, Explanation of Provisions, Part I.B.

4. Layer 2 aggregators

a) Background on layer 2s and layer 2 aggregators

A significant amount of DeFi is effected on "layer 2" blockchain technology. Very generally, a layer 2 is a protocol built on top of a blockchain that batches transactions off-chain, compresses them into a single summary transaction or cryptographic proof, and submits that summary transaction or proof to the blockchain at regular intervals. (In this context, the blockchain is the "layer 1.") Layer 2s enable faster transaction throughput and lower transaction costs while retaining the security of the related layer 1.

The technologies underlying layer 2 protocols vary significantly but always include an aggregator function.[73] Layer 2 aggregators are highly analogous to a blockchain's validators: they order transactions and transmit them to the underlying blockchain. Some layer 2s use a single aggregator or small group of "permissioned" aggregators. Others enable anyone to be an aggregator and employ a process closely analogous to a consensus mechanism to determine the order in which aggregators submit batched data to the blockchain.

b) Layer 2 aggregators are not brokers under any reasonable interpretation of the term

Neither the Proposed Regulations nor the Preamble mention layer 2 aggregators. However, as discussed above, layer 2 aggregators are highly analogous to blockchain validators and, like validators, are not in a position to know user identities.[74] Accordingly, layer 2 aggregators should be explicitly exempted from the definition of facilitative services.[75]

C. State change phase

1. Smart contract coders and deployers

a) Background on smart contracts

Once a block is validated and added to a blockchain, the blockchain's "virtual computer" executes the transactions within the block. That execution includes interactions with smart contracts. If a transaction modifies the state of a smart contract, those changes are reflected in the blockchain's state.

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[73] For layer 2 protocols that use "optimistic rollup" technology, the aggregator is referred to as the sequencer. For those that use zero knowledge proof technology, the aggregator is referred to as the proposer.

[74] *Cf.* proposed regs. section 1.6045-1(a)(21)(iii)(A).

[75] *See also* Colloquy ("validation methods, *now or in the future*, associated with other consensus mechanisms that are developed and *might come into the market as the technology evolves*") (emphasis added).

As mentioned above, smart contracts are self-executing pieces of code stored on-chain. Anyone can deploy a smart contract to a blockchain for a gas fee. Thus, it often is difficult to determine the identity of a particular smart contract's deployer, although smart contracts that form part of a DeFi protocol typically are deployed by a member of one of the development teams building the protocol.

Smart contracts generally are incapable of collecting and verifying tax information because they can react only to predefined inputs and, by default, can "see" only other information stored on-chain.

b) Smart contract coders and deployers are not brokers under any reasonable interpretation of the term

The Proposed Regulations include as an example of a facilitative service "providing an automated market maker system."[76] Because the Proposed Regulations do not define "system," the example raises the possibility that merely coding or deploying a smart contract to a blockchain, including one that figures into an automated market maker suite, could cause the coder or deployer to be a broker.

Smart contracts are on-chain marketplaces for peer-to-peer transactions. Treating people who code smart contracts or deploy them to a blockchain as brokers would be tantamount to treating stock exchanges, online peer-to-peer marketplaces, and flea market operators as brokers. Providers of such *marketplace availability services* have never been treated as brokers,[77] and it would be intellectually inconsistent to treat them as brokers merely because the relevant marketplace is on-chain. Moreover, smart contract coders and deployers currently have no practical way of determining the identities of the users of their software. Accordingly, treating smart contract coders or deployers as brokers would both contradict the Colloquy and impose an impracticable compliance requirement.

2. Liquidity providers

a) Background on liquidity provision

Liquidity provision is a foundational component of many DeFi smart contracts: liquidity providers contribute tokens to a smart contract, which other users can interact with in various ways (such as engaging in token swaps or token borrowings). In exchange for their contribution,

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[76] Proposed regs. section 1.6045-1(a)(21)(iii).

[77] *See* regs. section 1.6045-1(b), Example 2(ii) ("A person (such as a stock exchange) that merely provides facilities in which others effect sales" is not a broker).

liquidity providers receive transferrable tokens that can be redeemed for a portion of the assets held in the smart contract.

This section illustrates how liquidity provision works in the context of automated market makers (**AMMs**), borrowing protocols, and liquid staking protocols.

(1) Automated market makers

An AMM is a suite of smart contracts that facilitate token swaps. Typically, each smart contract handles one token pair (e.g., ETH-USDC, ETH-DAI, CRV-USDT, etc.). A liquidity provider can contribute equal values of each token within a pair to the related smart contract in exchange for a so-called **LP token**.

A smart contract in a "simple" AMM executes token swaps with users at prices determined algorithmically based on the relative amount of each token the smart contract holds, and charges the same percentage fee for each trade. Liquidity providers can redeem their LP tokens at any time for a proportionate share of whatever is in the smart contract at that time. The smart contract's transaction fees are set by the contract deployer.

The simple AMM model distributes liquidity evenly across the theoretical range of a token pair's relative prices. In a more complex AMM, liquidity providers can select the price range to which they wish to add liquidity (e.g., from [1 ETH = 1600 USDC] to [1 ETH = 1800 USDC]), and can redeem their LP tokens only for a proportionate share of whatever is in the smart contract within that price range at that time.[78] They also typically can set their own fees, so that traders potentially bear different fees within different price ranges.

(2) Borrowing protocols

A DeFi borrowing protocol is a suite of smart contracts that facilitate overcollateralized token "borrowings."[79] Users who contribute tokens to a smart contract can "borrow" other tokens from the smart contract up to a percentage of the value of the tokens they contributed, and can reacquire tokens identical to the ones they contributed by replacing the borrowed tokens and paying a time-based usage fee.

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[78] Because LP tokens for complex AMMs are fungible only with other LP tokens that have the same parameters, they typically are represented as NFTs (i.e., ERC-721 tokens on Ethereum).

[79] Borrowing protocols are sometimes referred to as "lending protocols," but the transactions that they enable do not involve "lending" or "loans" in a traditional sense and do not give rise to debt for U.S. tax purposes. *See, e.g.*, Jake Chervinsky, *DeFi Protocols Don't Do 'Lending,'* Bankless, *available at* https://www.bankless.com/defi-lending-doesnt-exist-yet (Sep. 3, 2020).

Each user who contributes tokens to a DeFi borrowing protocol is not just a potential borrower, but also a liquidity provider, because the tokens they contribute can be borrowed by other users. When a user contributes tokens to the protocol, they receive a fungible token that is redeemable for (1) their contribution and (2) any usage fees accrued in respect of that contribution.[80]

(3) Liquid staking protocols

Liquid staking protocols are designed to socialize the costs, risks, and rewards of running Ethereum validator software. Very generally, non-validators contribute their ETH into a smart contract in exchange for fungible tokens redeemable for a portion of the assets within the smart contract. Based on the pre-defined logic of the smart contract, users' contributed ETH is allocated among participating validators to ensure that each has the minimum stake required by Ethereum's consensus mechanism.[81] A portion of validator rewards are credited to participating validators as a fee; the remainder accrue inside the smart contract or are credited on a current basis to the non-validators.

b) Liquidity providers are not brokers under any reasonable interpretation of the term

The U.S. tax treatment of liquidity provision is unknown. Under one approach, a liquidity provider is treated as engaging directly in the activities of the applicable smart contract. Under an alternative approach, the smart contract is deemed to be a tax "person" that is not looked through.[82] It is also possible that some liquidity provision arrangements are looked through and others are not.[83]

If liquidity providers are treated for purposes of the Proposed Regulations as engaging directly in the activities of the applicable smart contract, many could be brokers under the Proposed Regulations, but would have no way to comply. For example, liquidity providers to AMMs arguably would be treated as providing "market making functions" by standing ready (through a smart contract) to buy and sell tokens, and market making functions are an example

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[80] Alternatively, usage fees might be credited on a current basis to liquidity providers.

[81] Validators might be required to contribute some value as "collateral" to the smart contract.

[82] *See, e.g.*, Jason Schwartz, *Squaring the Circle: Smart Contracts and DAOs as Tax Entities*, https://www.friedfrank.com/uploads/siteFiles/Publications/Decentralized%20Autonomous%20Organizations%20_%20Decentralized%20Law.pdf (July 29, 2022) (suggesting some pooled smart contracts might be treated as foreign corporations that are not passive foreign investment companies).

[83] *See, e.g.*, Jason Schwartz, *The Latest DeFi Alpha Is Tax-Optimized Staking*, https://www.friedfrank.com/uploads/documents/cc68fd4ecd02c64da95a5c0752355f73.pdf (May 25, 2022).

of a facilitative service.[84] Moreover, many of those liquidity providers have the ability to set their own fees. (Fees for using the "simple" AMM described above are set by the smart contract deployer; fees for using the more complex AMM described above can be set by each liquidity provider.) Someone who is able to set fees is deemed under the Proposed Regulations' *per se* rule to be in a "position to know."[85] However, liquidity providers are never, in fact, in a position to know the identities of smart contract users. Accordingly, treating liquidity providers as brokers would be inconsistent with the IRS's own commitment not to treat "ancillary parties who cannot get access to information that is useful to the IRS" as brokers and impose an impracticable compliance requirement.

3. Protocol stewards

a) Background on protocol stewards

Typically, a group of developers creates a suite of smart contracts that comprises the initial version of a DeFi protocol. Once deployed to a blockchain, a smart contract's code cannot be altered. However, smart contracts can be, and often are, coded with configurable parameters, such as fees, collateralization requirements, and liquidation thresholds. The ability to adjust those parameters as market conditions change could be essential to ensuring the smooth functioning of a DeFi protocol.

b) Protocol stewards are not brokers under any reasonable interpretation of the term

The Preamble to the Proposed Regulations provides that the ability of "a digital asset trading platform operator" to replace a contract within a protocol or modify its parameters "strongly suggests" the operator is in a "position to know."[86] Neither the Preamble nor the Proposed Regulations define "platform" or "operator." Based on context, we assume "platform" includes a suite of smart contracts and "operator" includes a development team or DAO stewarding the suite.

As discussed in Part VIII.C.1., smart contract coders and deployers are not brokers under any reasonable interpretation of the term. Publishing code does not constitute a "service

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[84] *See* proposed regs. section 1.6045-1(a)(21)(iii)(A).

[85] *See* proposed regs. section 1.6045-1(a)(21)(ii)(A) ("a person with the ability to change the fees charged for facilitative services is an example of a person that maintains sufficient control or influence over provided facilitative services to have the ability to set or change the terms under which its services are provided to request that the party making the sale provide that party's name, address, and taxpayer identification number upon request").

[86] Preamble, Explanation of Provisions, Part I.B.

effectuating transfers," and smart contract deployers currently have no practical way of determining the identities of the users of their contracts. Thus, regardless of who an "operator" is, replacing a smart contract within a smart contract suite cannot cause the operator to be a broker.

For the same reasons, the ability to modify the parameters of a smart contract cannot cause someone to be a broker. Modifying code does not constitute a "service effectuating transfers," and smart contract stewards—whether they are software developers or DAOs—currently have no practical way to determine the identities of the users of those contracts.

IX. If the IRS proceeds with the Proposed Regulations, it should significantly delay the implementation timeline

In light of the concerns raised in this report and the sheer number of comment letters already submitted raising myriad issues, the Treasury and the IRS should delay the effective date of any broker reporting obligations that would apply to digital asset middlemen. Simply put, there is not enough clarity in the Proposed Regulations to be able to implement them in general, and even a set of clearer rules would require a tremendous development effort. This is especially true given that the persons affected do not currently have any infrastructure for complying and had previously received assurances from the Treasury that they would not be captured by the Proposed Regulations.[87]

For comparison, Congress amended section 6045 to require basis reporting in 2008, but the requirement did not take effect for debt instruments and options until eight years later, in 2016.[88] Traditional brokers subject to basis reporting tend to be financial institutions with customer relationships that give them reason to collect personal information as part of their business. By contrast, digital asset middlemen are not financial institutions, often do not have customer relationships under a traditional understanding of the term, and do not have any non-tax reason to collect personal information.

Furthermore, a significant number of non-brokers who otherwise would be subject to the Proposed Regulations may choose to instead block the internet protocol (**IP**) addresses of U.S. persons instead of completely altering their businesses to become brokers. However, the Proposed Regulations are unclear on what measures are required to avoid application of the Proposed Regulations. Specifically, the Proposed Regulations provide that a customer's communication from a U.S. IP address could cause a sale otherwise treated as effected at an

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87 *See* Treasury Letter.

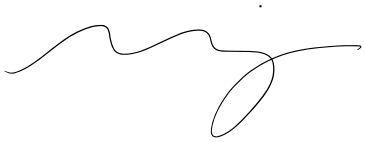
88 *See* regs. section 1.6045-1(n)(3).

office *outside* the United States by a non-U.S. digital asset broker to be treated as effected from *within* the United States.[89] If the IRS proceeds with the Proposed Regulations, it should clearly delineate the criteria necessary to avoid application of the Proposed Regulations to entities outside the United States.

* * *

We appreciate your consideration of our observations and recommendations. If you have any questions or comments regarding this letter, please feel free to contact us.

Sincerely,



Miller Whitehouse-Levine
Chief Executive Officer
DeFi Education Fund

Amanda Tuminelli
Chief Legal Officer
DeFi Education Fund

cc: Jason Schwartz, Fried, Frank, Harris, Shriver & Jacobson LLP

[89] Proposed regs. section 1.6045-1(g)(4)(iv)(B)(1).

Exhibit 5

November 6, 2024

Via Online Portal located at:
https://www.reginfo.gov/public/do/PRA/icrPublicCommentRequest?ref_nbr=202404-1545-010

With copy to:

Melody Braswell
Treasury PRA Clearance Officer
U.S. Department of Treasury
1500 Pennsylvania Avenue NW
Washington, DC 20220
pra@treasury.gov

Re: Comment Request for Digital Asset Proceeds From Broker Transactions; 89 Fed. Reg. 194 at 81151 (October 7, 2024) (the "Second Notice")

The Blockchain Association (the "Association")[1],the DeFi Education Fund ("DEF")[2], and the Texas Blockchain Council ("TBC")[3] (together, the "Commenters") submit these comments in response to the above-captioned Second Notice published pursuant to the Paperwork Reduction Act (44 U.S.C. § 3501 *et seq*., the "PRA").

On August 29, 2023, the Secretary of the Treasury issued proposed regulations, which purport to interpret and implement the reporting requirements of Section 6045[4] (the "Proposed Regulations"). On November 7, 2023, DEF submitted a comment letter in response to the

[1] The Association is the leading nonprofit membership organization dedicated to promoting a pro-innovation policy environment for the digital asset economy. The Association endeavors to achieve regulatory clarity and to educate policymakers, regulators, courts, and the public about how blockchain technology can pave the way for a more secure, competitive, and consumer-friendly digital marketplace. The Association represents nearly 100 member companies reflecting the wide range of the dynamic blockchain industry, including software developers, infrastructure providers, exchanges, custodians, investors, and others supporting the public blockchain ecosystem.

[2] DEF is a nonpartisan research and advocacy group working to explain the benefits of decentralized finance ("DeFi"), achieve regulatory clarity for the future of the global digital economy, and help realize the potential of DeFi. DEF works to educate regulators and policymakers and advocate for smart approaches.

[3] TBC is a nonprofit, public interest organization working to foster growth, innovation, and sensible regulation in the digital asset industry.

[4] Unless otherwise noted, all section references are to the Internal Revenue Code of 1986, as amended (the "Code") or Treasury Regulations thereunder.

Proposed Regulations.[5] The Association did the same on November 13, 2023 (the "November Comment").[6] On April 18, 2024, in connection with the Proposed Regulations, the U.S. Department of the Treasury ("Treasury") released a draft of Form 1099-DA, which was most recently updated on September 9, 2024.[7] Because the Form 1099-DA, once finalized, will prompt a new "collection of information" by a federal agency, Treasury was required to solicit comments pursuant to the PRA.[8]

The PRA requires two phases of public comment. Treasury issued its first notice soliciting comments pursuant to the PRA on April 22, 2024 (the "First Notice").[9] The Association and DEF submitted responsive comments in June 2024 (the "June Comments"),[10] which Treasury was required to consider before issuing the Second Notice on October 7, 2024. The Commenters now write to reiterate the issues first raised in the June Comments and note that despite its statutory obligations, Treasury failed to adequately address those arguments before moving ahead to this phase of the rulemaking under the PRA.

The PRA protects the public from burdensome regulations that involve the "collection of information" by or on behalf of a federal agency. The PRA requires "[a]gencies … to minimize the burden on the public to the extent practicable."[11] Tax forms like the proposed Form 1099-DA are "typical information requests" under the PRA,[12] and therefore Treasury must consider comments concerning:

- Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility;
- The accuracy of the agency's estimate of the burden of the collection of information;
- Ways to enhance the quality, utility, and clarity of the information to be collected;

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[5] The DeFi Education Fund, Comment Letter on IRS Proposed Rulemaking REG-122793-19 (Nov. 7, 2023), *available at* https://www.defieducationfund.org/_files/ugd/e53159_40d4255857d142f2a1744be79f1dab3f.pdf.

[6] The Blockchain Association, Comment Letter on IRS Proposed Rulemaking REG-122793-19 (Nov. 13, 2023), *available at* https://theblockchainassociation.org/wp-content/uploads/2023/11/Blockchain-Association-Broker-Comment-Letter-2023-11-13.pdf.

[7] I.R.S., 2025 Form 1099-DA (Draft) (Sept. 9, 2024), *available at* https://www.irs.gov/pub/irs-dft/f1099da--dft.pdf.

[8] 44 U.S.C. § 3506(c)(2)(A).

[9] 89 FR 29433.

[10] The Blockchain Association, Comment Letter on Digital Asset Proceeds From Broker Transactions, 89 Fed. Reg. 78 at 29433 (June 21, 2024), *available at* https://www.reginfo.gov/public/do/DownloadDocument?objectID=146866300; The DeFi Education Fund, Comment Letter on Digital Asset Proceeds from Broker Transactions, 89 Fed. Reg. 78 at 29433 (June 21, 2024), *available at* https://www.defieducationfund.org/_files/ugd/84ba66_3d28a7b618dc49cda4f661fa795eed6f.pdf.

[11] *Dole v. United Steelworkers of America*, 494 U.S. 26, 32 (1990).

[12] *Id.* at 33.

- Ways to minimize the burden of the collection of information on respondents; and
- Estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.[13]

The Commenters incorporate each of their previous comments by reference, and note that the November Comment includes extensive suggestions of ways to enhance the quality of the information collected and reduce the attendant burden. The November Comment also explains why collecting information pursuant to the Proposed Regulations is infeasible for certain market participants.

I. Treasury's estimate of the burden of the collection of information is inaccurate.

A. *Treasury underestimates the time burden associated with the Proposed Regulations.*

Treasury's estimated number of total annual burden hours remains, at best, confusing and inaccurate and, at worst, intentionally misleading.

In the First Notice, this burden is listed as 2,146,250 hours.[14] That number is the result of multiplying the estimated number of brokers impacted by the rule (5,050) by the estimated number of "responses" per impacted broker (2,833) by the estimated time per "response" (0.15 hours).[15]

However, when one attempts to analyze the estimate in reference to the Proposed Regulations, the number begins to fall apart. In the Proposed Regulations, the estimated response time of 0.15 hours was calculated per *customer*, not (as the First Notice might have one believe) per *form*.[16]

In other words, the Proposed Regulations make clear that a single completed "response" includes *all* of the forms required per "customer," not just a single form.[17] The Form 1099-DA is a per-transaction document. Many "customers" are likely to engage in multiple transactions each

[13] *See* First Notice; *see also* 44 U.S.C. § 3506(c)(2)(A).

[14] *See* First Notice. Adding to the confusion, on April 14, 2024, Treasury filed an Information Collection Requirement with the Office of Information and Regulatory Affairs that attributed 700 million burden hours to the Proposed Regulations. *See* ICR Summary of Burden for ICR Ref. No. 202311-1545-015, *available at* https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202311-1545-015. No explanation for (or acknowledgement of) this discrepancy was offered.

[15] *See* First Notice.

[16] *See* Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, 88 Fed. Reg. 166 at 59,573, 59,619 (Aug. 29, 2023).

[17] *See id.* ("A reasonable burden estimate for the average time to complete **these forms for each customer** is between 7.5 minutes and 10.5 minutes, with a mid-point of 9 minutes (or 0.15 hours)" (emphasis added)).

year and thus are likely to receive more than one Form 1099-DA.[18] It beggars belief that customers transacting with digital assets make exactly one transaction per year. Therefore, the vast majority of "responses" will likely encompass some indeterminate number of individual forms.[19] Julie Foerster, the former Director of Digital Assets for the Internal Revenue Service, has stated publicly that the agency anticipates processing an ***additional eight billion Forms 1099-DA*** in the event the Proposed Regulations are finalized as written.[20] Assuming this is true, the First Notice implies that the amount of time it will take a broker to fill out a single Form 1099-DA is approximately one second – a major and obvious understatement.[21]

A more accurate estimate is that the Proposed Regulations will result in ***at least four billion total annual burden hours*** for preparation of Forms 1099-DA. Treasury considers the Form 1099-DA to be similar to the preexisting Form 1099-B.[22] The time required to fill out a single Form 1099-B is, according to Treasury, approximately 30 minutes.[23] So, if the actual number of Forms 1099-DA per year is eight billion, and the time required to fill out each Form 1099-DA is in the ballpark of what is required to complete a Form 1099-B (i.e., 30 minutes per form), the true time burden created by the Proposed Regulations is about four billion hours.[24] This would increase the total paperwork burden created by the entire United States government by about

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[18] *See* I.R.S., 2025 Form 1099-DA (Draft) (Apr. 18, 2024), *available at* https://www.irs.gov/pub/irs-dft/f1099da--dft.pdf (calling for information for a single transaction).

[19] Note that the IRS does have rules allowing for a "substitute statement," whereby information technically required to be reported on separate "forms" may instead be reported in a single statement with more than one transaction per page. This is the case for 1099-Bs, for example. The number of "forms" required is technically the same, and the information required is the same, but you can meet the obligation to file these multiple forms with a single "substitute statement."

[20] Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp; *see also* Zlatkin, L. (2024, Sept. 25). Cryptocurrency Task Force [CLE session]. American Bar Association, online. https://events.americanbar.org/hub/events/b6660c8b-b3e9-4216-b9aa-1f22063cc471/sessions/bdae821f-4722-42ed-be58-d2204a5e4810?autoPlay=true (Coinbase Vice President, Tax stating: ""We are expecting to file, at Coinbase alone, one billion transactions").

[21] 2.15 million hours / 8 billion forms = 7.74 billion seconds / 8 billion forms = ~1 second per form.

[22] *See* Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, 88 Fed. Reg. at 59,619 (Aug. 29, 2023) (stating that estimates are based on data collected from filers of "*similar information returns*" such as Form 1099-B) (emphasis added).

[23] *See* I.R.S., *General Instructions for Certain Information Returns (2024)*, Cat. No. 27976F (Jan. 26, 2024), *available at* https://www.irs.gov/pub/irs-pdf/i1099gi.pdf at page 25.

[24] 8 billion forms x .5 hours per form = 4 billion hours. This itself is an understatement given that, as described in our November Comment, the information required to be reported is far more complicated, if not impossible, to collect.

one-third – all for the preparation of a single form.[25] This does not take into account the burden imposed on the taxpayers who receive these forms from brokers and must determine how to incorporate the forms into their tax returns. It also does not consider the burden imposed on the IRS for collecting, storing, and reviewing the forms.

Treasury's Second Notice and accompanying Supporting Statement do nothing to address these issues. The Second Notice includes a slightly increased burden estimate of 2,252,500 hours, but contains no explanation as to why this number changed.[26] The Supporting Statement explains that the method for computing the burden estimate is essentially the same as in the First Notice: the burden estimate is the result of multiplying the estimated number of brokers impacted by the rule (5,300) by the estimated number of "responses" per impacted broker (2,736) by the estimated time per "response" (0.15 hours or nine minutes). The Supporting Statement clarifies that the nine-minute estimate per "response" is *actually* an estimate "for each customer" and is *not* based on the "number of Forms 1099-DA that the broker must file."[27] That makes no sense: The burden is on the *broker* to prepare a form for each *transaction*, not each customer—so the burden must be assessed from the broker's vantage point. And, again, this is inconsistent with Treasury's estimate of the burden for other forms that Treasury believes are "similar": Treasury's burden estimate for the Form 1099-B is based on the number of forms, not customers. Treasury has provided no explanation at all, let alone a reasoned explanation, why the burden for the Form 1099-DA should be calculated differently in a manner that greatly reduces the estimated (but not the real) burden.

Treasury then suggests—without support—that once a single Form 1099-DA is completed for one customer, all subsequent forms will be easier.[28] There is no reason to believe that will be the case, and Treasury has provided none. Here too, that unsupported assertion is inconsistent with Treasury's treatment of the Form 1099-B.

Treasury also attempts to disavow the eight billion Forms 1099-DA estimate in its Supporting Statement, claiming: "The reference to 8 billion returns was not an estimate of the number of forms the IRS expected to receive under the proposed or final regulations."[29] But Treasury does not provide any alternative explanation of what this number was intended to describe. The Commenters invite the OMB to draw its own conclusion as to what was meant by the former Director of Digital Assets for the IRS when she said: "Our estimate right now is that we

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[25] *See Inventory of Currently Approved Information Collections*, OIRA, https://www.reginfo.gov/public/do/PRAReport?operation=11 (total annual reporting burden is currently about 11.92 billion hours) (last visited June 21, 2024).

[26] *See* Second Notice.

[27] *See* Supporting Statement, IRS, Form 1099-DA, Digital Asset Proceeds Form Broker Transactions, OMB Control Number 1545-NEW, *available at* https://www.reginfo.gov/public/do/DownloadDocument?objectID=146984100, at 10, 13.

[28] Supporting Statement at 10.

[29] *Id.*

will ingest — don't fall off your chairs — 8 billion information returns, and that's just the in-development Form 1099-DA."[30]

Any agency proposal that introduces four billion annual burden hours and an additional eight billion forms to the to-do lists of both taxpayers and the federal government does not comply with the PRA as a matter of common sense—particularly when the agency's official notice under the PRA does not even acknowledge or attempt to justify this burden.

B. *Treasury underestimates the financial expense associated with the Proposed Regulations.*

The Proposed Regulations calculated the financial burden of completing Forms 1099-DA to be $136,350,000 annually or $63.53 per hour. The Supporting Statement increases the hourly estimate to $65.49 per hour. Applying this hourly rate to the more accurate four billion hours estimate results in an annual financial burden of ***at least $261 billion***.[31] Recently, the IRS estimated that "global crypto revenue" is between $1 billion and $37 billion per year, with only about 25% of transactions currently reported.[32] It did not analyze how much of global crypto revenue is taxable in the United States. However, even assuming that all global crypto revenue is taxable in the United States at the highest individual tax bracket (37%), the tax gap for digital assets would be approximately $10 billion per year. To require the industry to spend over $260 billion per year to help lower a tax gap that is, at the highest conceivable level, $10 billion per year, is completely unreasonable.

II. Conclusion

For the reasons set forth above and in the letters previously submitted, the Proposed Regulations run directly afoul of the PRA, and both notices provide inadequate, facially absurd estimates of the paperwork burden associated with the Proposed Regulations. The Commenters encourage Treasury and OMB to acknowledge the true burdens of the Proposed Regulations, to reconsider certain aspects of the Proposed Regulations, and to re-propose rules that would better account for practical considerations in the digital asset ecosystem.

* * * * *

We appreciate the opportunity to comment on these regulations and would be happy to discuss further any of the issues discussed here.

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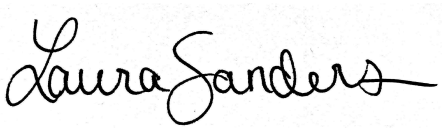
[30] Jonathan Curry, *IRS Prepping for at Least 8 Billion Crypto Information Returns*, Tax Notes (Oct. 26, 2023), https://www.taxnotes.com/featured-news/irs-prepping-least-8-billion-crypto-information-returns/2023/10/25/7hhdp.

[31] As explained in the November Comment, Treasury also significantly undercounts the financial burden in other ways, including, for example, by failing to take into account the "start-up" burdens of creating the reporting systems required by the Proposed Regulations. *See November Comment* at 32–33.

[32] *See* I.R.S. Pub. 5901, Cat. No. 94564D at 4 (Feb. 2024), *available at* https://www.irs.gov/pub/irs-pdf/p5901.pdf.

Respectfully submitted,



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Nathan Giesselman
Juliana Hunter
Steven Marcus

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. *(SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)*

I. (a) PLAINTIFFS

Texas Blockchain Council, Blockchain Association, DeFi Education Fund

(b) County of Residence of First Listed Plaintiff Dallas
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys *(Firm Name, Address, and Telephone Number)*

DEFENDANTS

Internal Revenue Service, United States of America, United State Department of the Treasury, Janet Yellen

County of Residence of First Listed Defendant
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys *(If Known)*

II. BASIS OF JURISDICTION *(Place an "X" in One Box Only)*

- ☐ 1 U.S. Government Plaintiff
- ☐ 3 Federal Question *(U.S. Government Not a Party)*
- ☒ 2 U.S. Government Defendant
- ☐ 4 Diversity *(Indicate Citizenship of Parties in Item III)*

III. CITIZENSHIP OF PRINCIPAL PARTIES *(Place an "X" in One Box for Plaintiff and One Box for Defendant)*

(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☐ 4
Citizen of Another State	☐ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT *(Place an "X" in One Box Only)*

Click here for: Nature of Suit Code Descriptions.

CONTRACT
- ☐ 110 Insurance
- ☐ 120 Marine
- ☐ 130 Miller Act
- ☐ 140 Negotiable Instrument
- ☐ 150 Recovery of Overpayment & Enforcement of Judgment
- ☐ 151 Medicare Act
- ☐ 152 Recovery of Defaulted Student Loans (Excludes Veterans)
- ☐ 153 Recovery of Overpayment of Veteran's Benefits
- ☐ 160 Stockholders' Suits
- ☐ 190 Other Contract
- ☐ 195 Contract Product Liability
- ☐ 196 Franchise

TORTS

PERSONAL INJURY
- ☐ 310 Airplane
- ☐ 315 Airplane Product Liability
- ☐ 320 Assault, Libel & Slander
- ☐ 330 Federal Employers' Liability
- ☐ 340 Marine
- ☐ 345 Marine Product Liability
- ☐ 350 Motor Vehicle
- ☐ 355 Motor Vehicle Product Liability
- ☐ 360 Other Personal Injury
- ☐ 362 Personal Injury - Medical Malpractice

PERSONAL INJURY
- ☐ 365 Personal Injury - Product Liability
- ☐ 367 Health Care/ Pharmaceutical Personal Injury Product Liability
- ☐ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ☐ 370 Other Fraud
- ☐ 371 Truth in Lending
- ☐ 380 Other Personal Property Damage
- ☐ 385 Property Damage Product Liability

REAL PROPERTY
- ☐ 210 Land Condemnation
- ☐ 220 Foreclosure
- ☐ 230 Rent Lease & Ejectment
- ☐ 240 Torts to Land
- ☐ 245 Tort Product Liability
- ☐ 290 All Other Real Property

CIVIL RIGHTS
- ☐ 440 Other Civil Rights
- ☐ 441 Voting
- ☐ 442 Employment
- ☐ 443 Housing/ Accommodations
- ☐ 445 Amer. w/Disabilities - Employment
- ☐ 446 Amer. w/Disabilities - Other
- ☐ 448 Education

PRISONER PETITIONS

Habeas Corpus:
- ☐ 463 Alien Detainee
- ☐ 510 Motions to Vacate Sentence
- ☐ 530 General
- ☐ 535 Death Penalty

Other:
- ☐ 540 Mandamus & Other
- ☐ 550 Civil Rights
- ☐ 555 Prison Condition
- ☐ 560 Civil Detainee - Conditions of Confinement

FORFEITURE/PENALTY
- ☐ 625 Drug Related Seizure of Property 21 USC 881
- ☐ 690 Other

LABOR
- ☐ 710 Fair Labor Standards Act
- ☐ 720 Labor/Management Relations
- ☐ 740 Railway Labor Act
- ☐ 751 Family and Medical Leave Act
- ☐ 790 Other Labor Litigation
- ☐ 791 Employee Retirement Income Security Act

IMMIGRATION
- ☐ 462 Naturalization Application
- ☐ 465 Other Immigration Actions

BANKRUPTCY
- ☐ 422 Appeal 28 USC 158
- ☐ 423 Withdrawal 28 USC 157

INTELLECTUAL PROPERTY RIGHTS
- ☐ 820 Copyrights
- ☐ 830 Patent
- ☐ 835 Patent - Abbreviated New Drug Application
- ☐ 840 Trademark
- ☐ 880 Defend Trade Secrets Act of 2016

SOCIAL SECURITY
- ☐ 861 HIA (1395ff)
- ☐ 862 Black Lung (923)
- ☐ 863 DIWC/DIWW (405(g))
- ☐ 864 SSID Title XVI
- ☐ 865 RSI (405(g))

FEDERAL TAX SUITS
- ☐ 870 Taxes (U.S. Plaintiff or Defendant)
- ☐ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ☐ 375 False Claims Act
- ☐ 376 Qui Tam (31 USC 3729(a))
- ☐ 400 State Reapportionment
- ☐ 410 Antitrust
- ☐ 430 Banks and Banking
- ☐ 450 Commerce
- ☐ 460 Deportation
- ☐ 470 Racketeer Influenced and Corrupt Organizations
- ☐ 480 Consumer Credit (15 USC 1681 or 1692)
- ☐ 485 Telephone Consumer Protection Act
- ☐ 490 Cable/Sat TV
- ☐ 850 Securities/Commodities/ Exchange
- ☐ 890 Other Statutory Actions
- ☐ 891 Agricultural Acts
- ☐ 893 Environmental Matters
- ☐ 895 Freedom of Information Act
- ☐ 896 Arbitration
- ☒ 899 Administrative Procedure Act/Review or Appeal of Agency Decision
- ☐ 950 Constitutionality of State Statutes

V. ORIGIN *(Place an "X" in One Box Only)*

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from Another District *(specify)*
- ☐ 6 Multidistrict Litigation - Transfer
- ☐ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing ***(Do not cite jurisdictional statutes unless diversity)***:
Administrative Procedure Act (APA), 5 U.S.C. § 500 et seq.

Brief description of cause:
Department of Treasury rule violates the APA and the Constitution

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A **CLASS ACTION** UNDER RULE 23, F.R.Cv.P.

DEMAND $

CHECK YES only if demanded in complaint:

JURY DEMAND: ☐ Yes ☒ No

VIII. RELATED CASE(S) IF ANY

(See instructions): JUDGE _____ DOCKET NUMBER _____

DATE
December 27, 2024

SIGNATURE OF ATTORNEY OF RECORD
/s/ Randy D. Gordon

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS 44

Authority For Civil Cover Sheet

The JS 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

I.(a) Plaintiffs-Defendants. Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.

(b) County of Residence. For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)

(c) Attorneys. Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".

II. Jurisdiction. The basis of jurisdiction is set forth under Rule 8(a), F.R.Cv.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.
United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here.
United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.
Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.
Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)

III. Residence (citizenship) of Principal Parties. This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.

IV. Nature of Suit. Place an "X" in the appropriate box. If there are multiple nature of suit codes associated with the case, pick the nature of suit code that is most applicable. Click here for: Nature of Suit Code Descriptions.

V. Origin. Place an "X" in one of the seven boxes.
Original Proceedings. (1) Cases which originate in the United States district courts.
Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441.
Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
Multidistrict Litigation – Transfer. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407.
Multidistrict Litigation – Direct File. (8) Check this box when a multidistrict case is filed in the same district as the Master MDL docket. **PLEASE NOTE THAT THERE IS NOT AN ORIGIN CODE 7.** Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.

VI. Cause of Action. Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service.

VII. Requested in Complaint. Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.
Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.
Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.

VIII. Related Cases. This section of the JS 44 is used to reference related cases, if any. If a related case exists, whether pending or closed, insert the docket numbers and the corresponding judge names for such cases. A case is related to this filing if the case: 1) involves some or all of the same parties and is based on the same or similar claim; 2) involves the same property, transaction, or event; 3) involves substantially similar issues of law and fact; and/or 4) involves the same estate in a bankruptcy appeal.

Date and Attorney Signature. Date and sign the civil cover sheet.