[4830-01-p]

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[TD 10021]

RIN 1545-BR39

Gross Proceeds Reporting by Brokers that Regularly Provide Services Effectuating Digital Asset Sales

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Final regulations.

SUMMARY: This document contains final regulations regarding information reporting by brokers that regularly provide services effectuating certain digital asset sales and exchanges. The final regulations require these brokers to file information returns and furnish payee statements reporting gross proceeds on dispositions of digital assets effected for customers in certain sale or exchange transactions.

DATES: *Effective date*: These regulations are effective on [**INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

Applicability dates: For dates of applicability, *see* §1.6045-1(q).

FOR FURTHER INFORMATION CONTACT: Roseann Cutrone or Jessica Chase of the Office of the Associate Chief Counsel (Procedure and Administration) at (202) 317-5436 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Authority

This document contains amendments to the Income Tax Regulations (26 CFR part 1) by adding final regulations under section 6045 of the Internal Revenue Code (Code) to require certain decentralized finance industry participants to file and furnish information returns as brokers. Section 6045(a) provides an express delegation of

authority to the Secretary of the Treasury or her delegate (Secretary) to require every person doing business as a broker to make returns, in accordance with such regulations as the Secretary may prescribe, showing the name and address of each customer, with such details regarding gross proceeds and such other information as the Secretary may by forms or regulations require. Section 80603 of the Infrastructure Investment and Jobs Act, Public Law 117-58, 135 Stat. 429, 1339 (2021) (Infrastructure Act) amended section 6045 clarify the definition of broker as it relates to persons responsible for regularly providing services effectuating transfers of digital assets, to expand the categories of assets for which basis reporting is required to include all digital assets, and to provide a definition for the term digital assets. Finally, the Infrastructure Act provided that these amendments apply to returns required to be filed, and statements required to be furnished, after December 31, 2023, and provided a rule of construction stating that these statutory amendments shall not be construed to create any inference for any period prior to the effective date of the amendments with respect to whether any person is a broker under section 6045(c)(1) or whether any digital asset is property which is a specified security under section 6045(g)(3)(B).

The final regulations are also issued under the express delegation of authority under section 7805(a) of the Code. Section 7805(a) authorizes the Secretary to "prescribe all needful rules and regulations for the enforcement of [the Code], including all rules and regulations as may be necessary by reason of any alteration of law in relation to internal revenue." The Infrastructure Act amended section 6045, and the Secretary has determined that these final regulations are needful for the enforcement of the Code because tax compliance would be increased if brokers were required to file information returns, and furnish payee statements, under section 6045. *See* Proposed Rules, Gross Proceeds and Basis Reporting by Brokers and Determination of Amount

Realized and Basis for Digital Asset Transactions, 88 FR 59576 (August 29, 2023) (describing need for regulation and its anticipated impact on tax administration).

Background

On August 29, 2023, the Treasury Department and the IRS published in the **Federal Register** (88 FR 59576) proposed regulations (REG-122793-19) (proposed regulations) relating to information reporting under section 6045 by brokers. These proposed regulations included rules that would apply to brokers that generally act as agents and dealers in transactions with their customers involving digital assets, which are defined generally as any digital representation of value that is not cash and is recorded on a cryptographically secured distributed ledger (that is, a database that records transactions across multiple computers) or any similar technology. The proposed regulations also included rules that would apply to brokers that act as digital asset middlemen, a new category of broker proposed to address the use of digital assets to make certain payments and to reflect the clarified definition of broker under the Infrastructure Act. This proposed new category of broker would include certain participants that operate within the segment of the digital assets industry that is commonly referred to as decentralized finance (DeFi).[1] The DeFi industry offers services that allow for transactions that use automatically executing software commonly referred to as smart contracts based on distributed ledger technology without any participant in the DeFi industry (DeFi participant) taking custody of the private keys used for accessing the digital asset customer's digital assets on a distributed ledger. Additionally, the proposed regulations included specific rules under section 1001 of the Code for determining the amount realized in a sale, exchange, or other disposition of

[1] This preamble's use of the DeFi term is not intended to create any inference as to whether or not this segment of the digital assets industry operates without any centralized participants.

digital assets and under section 1012 of the Code for calculating the basis of digital assets.

The proposed regulations stated that written or electronic comments provided in response to the proposed regulations must be received by October 30, 2023. The due date for comments was extended until November 13, 2023. In response to the proposed regulations, the Treasury Department and the IRS received over 44,000 written comments.[2] All posted comments were considered and are available at https://www.regulations.gov or upon request. A public hearing was held on November 13, 2023. In addition, the Treasury Department and the IRS continued to accept late comments through noon eastern time on April 5, 2024.

On July 9, 2024, the Treasury Department and the IRS published in the **Federal Register** (89 FR 56480) final regulations (REG-122793-19) (TD 10000) regarding information reporting by certain brokers and the determination of amount realized and basis for certain digital asset sales and exchanges. TD 10000 generally applies to digital asset brokers that act as agents for a party in the transaction, such as operators of custodial digital asset trading platforms, certain digital asset hosted wallet providers, and certain processors of digital asset payments (PDAPs), as well as persons that interact with their customers as counterparties to transactions, such as owners of digital asset kiosks, brokers who accept digital assets as payment for commissions and certain other property, brokers that transact as dealers in digital assets, and certain issuers of digital assets who regularly offer to redeem those digital assets. Additionally, TD 10000 finalized specific rules under section 1001 for determining the amount realized in a sale,

[2] Although https://www.regulations.gov indicated that over 125,000 comments were received, the Treasury and the IRS did not actually receive over 125,000 comments. Instead, 125,000 reflects the number of "submissions" that each comment self-reported as being included in the comment, whether or not the comment actually included such separate submissions.

exchange, or other disposition of digital assets and under section 1012 for calculating the basis of digital assets.

TD 10000 did not finalize the definition of digital asset middleman from the proposed regulations as applied to DeFi participants (referred to in the preamble to TD 10000 as non-custodial industry participants) because the Treasury Department and the IRS determined that additional consideration of the issues and comments received with respect to these participants was warranted. Instead, TD 10000 reserved on the proposed definition of digital asset middleman that would have treated these participants as brokers. The preamble to TD 10000 also indicated that the Treasury Department and the IRS intend to expeditiously issue separate final regulations with respect to these participants.

The Summary of Comments and Explanation of Revisions of these final regulations summarizes the digital asset middleman provisions in the proposed regulations that were reserved in TD 10000, which provisions are explained in greater detail in the preamble to the proposed regulations. After considering the comments to these provisions, the reserved portion of the proposed regulations relating to the definition of a digital asset middleman is adopted as amended by this Treasury decision in response to such comments as described in the Summary of Comments and Explanation of Revisions.

These final regulations concern Federal tax laws under the Internal Revenue Code only. No inference is intended with respect to any other legal regime, including the Federal securities laws and the Commodity Exchange Act, or the Bank Secrecy Act and its implementing regulations, which are outside the scope of these regulations.

Summary of Comments and Explanation of Revisions

I. Comparison of the Decentralized Digital Asset Ecosystem with the Securities Industry

A few comments received in response to the proposed regulations asserted that the definition of broker in the final regulations should not extend beyond the scope of the definition of broker in the regulations that apply to securities industry participants in carrying out securities transactions. The Treasury Department and the IRS disagree with these comments and address them in Part II of this Summary of Comments and Explanation of Revisions. Before turning to that discussion, however, the Treasury Department and the IRS believe that a comparison of the functions carried out by brokers and other participants in the securities industry with the functions carried out by DeFi participants is useful in analyzing how the broker definition should apply to DeFi participants.

A. The securities industry

In the securities industry, the sale of a security typically involves three fundamental functions, each of which is necessary for the trade to take place. First, a customer will give a trade order to sell its securities to a securities broker, specifying the details of the order, such as the quantity and identity of the securities to be sold. Second, the securities broker will route the order details to a trading center, such as a national securities exchange or an alternative trading center, for example in the case of U.S. equities the New York Stock Exchange (NYSE) or the Nasdaq Stock Market, to execute the order. Third, once the exchange or other trading center finds a counterparty to the customer's order, the matched trade will be sent to a clearing organization that will record and settle the transaction by moving the traded securities and funds between the accounts of the two brokers representing the matched customers. While other

financial institutions may be involved in the sale transaction, and the functions involved may involve additional steps, these three functions are core functions.[3]

The securities broker that receives the customer's order may offer additional services. For example, while retail customers many years ago held physical stock and bond certificates themselves or with third-party custodians, today a securities broker or affiliate of that broker typically will hold a retail customer's securities as a custodian, although there are still limited circumstances under which an individual may hold physical securities certificates. For institutional customers, it is common for a financial institution other than the securities broker that receives the customer's trade order to hold the customer's securities. In some cases, for example in the case of an insurance company or pension plan, the customer's securities may be held by a bank that offers specialized custodial services. In other cases, for example in the case of a hedge fund, the customer's securities may be held by its primary securities broker, referred to as a prime broker, but the customer may give the order to a different broker, referred to as an executing broker, that offers lower fees or other terms preferred by the customer. If the securities broker taking the customer's order does not hold the customer's securities, the executing broker and the financial institution holding the customer's securities will communicate with each other to ensure that the trade is executed smoothly by the exchange or other trading center.

The market that executes the transaction may be a national securities exchange, as described above. Alternatively, the trade may be executed on an alternative trading

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[3] *See* DTCC, *Accelerating the U.S. Securities Cycle to T+1,* Figure 2: Illustrative T+1 settlement trade flow, at page 8 (December 1, 2021), available at https://www.dtcc.com/-/media/Files/PDFs/T2/Accelerating-the-US-Securities-Settlement-Cycle-to-T1-December-1-2021.pdf; Financial Industry Regulatory Authority (FINRA), *The LifeCycle of a Trade* (November 21, 2017), available at https://www.finra.org/investors/insights/online-trade-lifecycle (describing the steps as the placement of an order by a customer and the receipt of the order by the broker, the sending of the order by a broker to an exchange or other trading center and the execution of the order on that exchange or other trading center, and the clearing and settling of the trade); Securities & Exchange Commission, *Trade Execution: What Every Investor Should Know* (January 15, 2013), available at https://www.sec.gov/about/reports-publications/investorpubstradexec.

center or by a single-dealer platform or wholesale broker. The function of all these trading centers is to match a sale order with a buy order.[4] Another possibility is that the securities broker may not go to an external trading center to execute the trade. Instead, if the securities broker is also a dealer in those securities, it may fill the order by acting as the counterparty to the customer's trade. Alternatively, the securities broker may match the sell order with a buy order from another customer.

The last step in the transaction is for the sale to be cleared and settled. Clearing and settlement of a sale of securities involves verifying that the terms of the buy and sell orders match and carrying out the movement of securities from the account of the seller's securities broker to the account of the buyer's securities broker (which credits those securities to the buyer) and the movement of cash in the reverse direction. This function is carried out by a specialized financial institution that may be referred to as a clearing organization.

Historically, communications between securities brokers and their customers took place in person or by telephone. Customers now may communicate a trade order to a securities broker through a mobile device application (mobile device app) or a website accessible via a computer or mobile device. The mobile device app or website provides a user interface with visual elements that enable customers to see the services offered and buttons and fill-in screens to enable customers to communicate trading instructions to the broker through the mobile device app or website. For example, a customer may access a mobile device app or website offered by a securities broker to select among a number of possible transactions, make its selection via buttons and fill-in screens, and authorize the purchase or sale of securities by clicking a button. Doing so generates a trade order in the form of software code which is transmitted to the broker's

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[4] *See* FINRA, *Where Do Stocks Trade?* (September 28, 2023), available at https://www.finra.org/investors/insights/where-do-stocks-trade.

systems and used to initiate the remaining steps in the transaction. Similarly, each of the other steps in the sale of a security typically now take place electronically, through specialized software.

B. The decentralized digital asset ecosystem

DeFi service providers use distributed ledger technologies to offer investment and other financial services, similar to those provided in the securities industry by securities brokers and exchanges, that enable customers to carry out trades of digital assets using applications,[5] sometimes referred to as DeFi applications or dApps, without relying on a traditional centralized financial intermediary. The services provided generally involve multiple DeFi participants performing various functions throughout the process in order to complete a customer's transaction, including: the intake of a customer's trade order details and communication of that order to the validation network for execution of the trade using the automatically executing contracts of the DeFi protocol and for recordation and settlement of the trade via a consensus mechanism. Because these steps do not require the involvement of a centralized financial intermediary (although some participants may in fact be structured as such), they rely on software programs. Additional services and/or service providers may also be involved in the transaction. For example, another type of DeFi application, commonly referred to as a DeFi aggregator, may communicate the customer's trade to the DeFi protocol with the most favorable trade execution terms.

Several comments received in response to the proposed regulations referenced or described a model, referred to by some in the DeFi industry as the DeFi technology stack model or the DeFi stack reference model, which describes the components and functions involved in the communication, execution, and settlement of a typical DeFi transaction.

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[5] In the context of the DeFi ecosystem, these final regulations use the term execute to refer to the activation of the automatically executing contracts of DeFi applications and not to the simultaneous activities of validators that initiate this activation.

This DeFi technology stack model is also described in several scholarly papers.[6] The DeFi technology stack model classifies the technologies involved in the communication, execution, and settlement of a typical DeFi transaction into different technology layers, with each layer representing the performance of a different function in carrying out the overall transaction. In its simplest form, the DeFi technology stack model describes three primary technology layers—the interface layer, the application layer, and the settlement layer—even though these layers can be further subdivided into sub-layers. *See* BIS Paper at 4 (describing the application layer as having three sublayers). Other scholars describe the DeFi technology stack model as having more than three primary technology layers without subdivision within each layer. *See e.g.*, FRB Review at 155 (describing five primary layers). Regardless of the number of layers described by any given model, the functionality provided by each layer is generally needed to complete the communication, execution, and settlement of a digital asset transaction involving DeFi participants. *See* BIS Paper at 4. For simplicity's sake, this preamble describes the DeFi technology stack model with three primary layers because that model is sufficient for the purpose of analyzing the issues raised by the comments received in response to the proposed regulations.

In general terms, the three-layer DeFi technology stack model places the interface layer at the top of the DeFi technology stack model because this is the layer with which most users of digital assets interact. The interface layer is the layer that enables digital asset users to communicate with DeFi participants operating on the other layers for ultimate execution and settlement of the transaction. The interface layer does so by providing software (sometimes referred to as front-end services) that provides the digital

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[6] *See e.g.*, R. Auer, B. Haslhofer, S. Kitzler, P. Saggese, and F. Victor, *The Technology of Decentralized Finance (DeFi)*, Bank for International Settlements (January 2023) (BIS Paper), at 3, available at: https://www.bis.org/publ/work1066.htm, and F. Schär, *Decentralized Finance: On Blockchain – and Smart Contract-Based Financial Markets*, Federal Reserve Bank of St. Louis Review, at 153, 156 (2d Qtr. 2021) (FRB Review), available at: https://research.stlouisfed.org/publications/review/2021/02/05/decentralized-finance-on-blockchain-and-smart-contract-based-financial-markets.

asset user with tools—including screens, buttons, forms, and other visual elements incorporated in websites, mobile device apps, and browser extensions—that users can use to trade digital assets in their unhosted wallets[7] using DeFi protocols or DeFi aggregators operating on the application layer. The application layer is the layer that executes the user's trade order as part of the validation process. It is comprised of DeFi protocols that consist of automatically executing software programs or smart contracts that, when called upon, perform a predetermined series of actions, for example exchanging digital asset A for digital asset B, when certain conditions are met. Finally, the settlement layer is generally responsible for recording financial transactions on the distributed ledger, including transactions conducted by users that trade digital assets using DeFi protocols. Each of these layers are described in more detail in Parts I.B.1., 2., and 3. of this Summary of Comments and Explanation of Revisions.

While not included in the three-layer model described in the BIS Paper, an important component of a DeFi transaction is the use of an unhosted wallet by digital asset users. A wallet is a means of storing, electronically or otherwise, a user's private keys to digital assets (more technically, the private keys to distributed ledger digital asset addresses as defined in §1.6045-1(a)(20)) held by or for the user. Private keys are required to conduct transactions with the digital assets associated with those keys and are sometimes analogized to a password to a bank or investment account. In contrast to a hosted wallet, in which a custodial service electronically stores the private keys to digital assets held on behalf of digital asset users, an unhosted wallet is a non-custodial means of storing a user's private keys to digital assets held by or for the user. *See* §1.6045-1(a)(25)(i) and (iii). A broadly analogous fact pattern (disregarding the technological differences) in the securities industry would be the use of a home safe by an investor to

[7] References in this preamble to an owner holding digital assets generally or holding digital assets in a wallet are meant to refer to holding or controlling the keys to the digital assets and, thus, the ability to transfer those digital assets. *See* §1.6045-1(a)(25)(iv).

store the investor's securities certificates, so that only the investor controls what happens with those certificates. Unhosted wallets also typically include software that enables digital asset users to use their private keys, generally by signing or authorizing a transaction. Unhosted wallets may also provide wallet users with other services, such as tools that enable users to interact with the DeFi marketplace.

1. The Interface Layer

While DeFi protocols execute exchanges of digital assets, interacting directly with a DeFi protocol requires the ability to write software code that will communicate with other participants in the DeFi ecosystem. Although some digital asset users possess these technical skills, most retail digital asset users do not. Instead, most retail digital asset users use the services provided by other participants in the DeFi ecosystem that offer a more user-friendly way to specify the details of the transaction they wish to carry out and to communicate that order so that it can be carried out. These services are generally referred to as front-end services because they are provided at the front end of a transaction and are classified as the interface layer because they are the services that most users face.

Providers of front-end services typically offer a suite of services that enable their customers to view the market conditions relating to a customer's proposed trade, to input their proposed trade, and then to initiate the additional steps necessary to trade their digital assets (trading front-end services). Providers of these trading front-end services are referred to here as trading front-end service providers. This suite of services may be offered as part of the enhanced services offered by an unhosted wallet or alternatively by a website or mobile app to which customers connect their unhosted wallets. In either case, this service is provided through software that assists customers in initiating digital asset transactions, such as an exchange of digital asset A for digital asset B using a DeFi protocol. For example, when digital asset user C seeks to trade digital assets in C's unhosted wallet using a DeFi protocol, C may use a mobile device app or a website accessible via computer or mobile

device that is designed for that purpose. Embedded in that mobile device app or website is software that provides C with visual elements that enable C to see the services offered, such as screens to view the distributed ledger market and potential trade transactions and buttons for C to press to communicate C's desired transaction order.

When customers use trading front-end services, they will typically be provided with an array of available digital asset trading pairs applicable to the digital assets they hold in their unhosted wallets. For example, a customer that wishes to exchange a digital asset will be shown a menu of the trading pairs available for exchange of the customer's digital asset for different digital assets as well as the current exchange rate for each potential trade. Some trading front-end services also offer customers the ability to choose the DeFi trading application that will execute their transaction. After a customer reviews the available trading pairs and decides on a potential transaction, the customer will input the necessary trade order information. Thereafter, the trading front-end service will typically ask the customer to confirm the specific trade order details. If the trade order details are confirmed by the customer, the trading front-end service will convert that trade order information into software code in the form of a data object, referred to here as coded trade order instructions. The coded trade order instructions include all of the details of the transaction, including how many digital assets to remove from the customer's unhosted wallet, the fees (if any) payable to the trading front-end service provider, and whether these fees will be withheld from the amount of digital assets disposed or the digital assets received in the trade. The coded trade order instructions must specify the particular DeFi trading protocol that will execute the customer's trade. The coded trade order instructions also specify the type of digital assets the customer will receive at the completion of the transaction and may specify the digital asset address into which the received digital assets should be transferred. In advance of certain transactions requested by the customer, the provider of trading front-

end services will also obtain the customer's permission for the particular DeFi protocol to move digital assets out of the customer's wallet in one or more transactions. Without this service, many customers' trades cannot be executed.

After the coded trade order instructions are complete, the next step is for the customer to authorize or sign the transaction, for example by clicking a button in the customer's wallet. Once the customer authorizes the transaction in their wallet, the unhosted wallet then forwards the signed transaction to a communication node for broadcast to the distributed ledger network, where it will stay as a pending transaction until a validator chooses to include it in a block, and the block is added to the distributed ledger. As part of the validator's processing of a DeFi protocol transaction, the coded trade order instructions provided through the trading front-end services call the applicable DeFi protocol's automatically executing smart contracts, which execute the transaction by performing the operations it was coded to perform without human intervention. In less technical terms, once the customer authorizes the transaction, the coded trade order instructions determine the subsequent steps in the transaction as it is processed. In short, trading front-end services permit a customer to select, confirm, and communicate the details of a trade transaction that it wishes to carry out using a DeFi protocol so that the transaction can be executed and settled by other DeFi participants. Notwithstanding differences in the technology used and the details of the mechanisms by which a customer's order is carried out, these services are similar to those provided to a customer by a traditional securities broker that does not hold or custody a customer's assets.

In some cases, a trading front-end service provider might take control of the customer's digital assets by routing the customer's digital assets to an address controlled by the trading front-end service provider, for example, where the trading front-end services include DeFi aggregator services.

Unhosted wallet providers do not necessarily offer the trading front-end services described in the previous paragraphs. Unhosted wallet providers may offer only more limited, basic wallet services or they may offer both basic wallet services and trading front-end services. As discussed in Part III.A.2. of this Summary of Comments and Explanation of Revisions, a core function of an unhosted wallet is to store private keys to distributed ledger digital asset addresses, so that wallet users can securely hold their digital assets at those addresses. In addition, as part of the basic wallet services, unhosted wallet providers typically include software that enables their customers to use those private keys to sign or authorize a transaction, similar to inputting a password or passcode to authorize other types of online transactions. Many providers of unhosted wallets also provide basic wallet services that enable their customers to transfer digital assets from one wallet to another wallet. A customer that wishes to use trading front-end services but whose unhosted wallet provider does not offer the desired services or does not offer them at a competitive price, can use the trading front-end services provided by a third-party website or a mobile device app by connecting their unhosted wallet to that third-party website. To carry out any transaction that will be recorded on the distributed ledger, the unhosted wallet will broadcast the signed transaction to the distributed ledger network, often through the use of specialized communication nodes. The basic wallet services described in this paragraph can be distinguished from the enhanced wallet services in which the trading front-end services used to interact with a DeFi protocol (described in the previous paragraphs in this part) or a DeFi aggregator that communicates the customer's trade to the DeFi protocol with the most favorable trade execution terms are provided by the unhosted wallet.

2. The Application Layer

The application layer is in the middle of the three-layer DeFi technology stack model. One of the core functions of the application layer is to provide DeFi protocols that

users can interact with to trade digital assets. DeFi protocols provide a function that is analogous to the function provided by a stock exchange or other trading center for matching buy and sell orders in the securities industry, although there are technological differences as to how that function is carried out.

A DeFi protocol is comprised of computer software that utilizes distributed ledger technology to provide digital asset exchange services through automatically executing software that performs a predetermined series of actions when certain conditions are met. BIS Paper at 2. One type of DeFi protocol is an automated market maker. BIS Paper at 4. Some DeFi protocols create an exchange marketplace by pooling digital assets provided by multiple digital asset users to create market liquidity. *Id*.

As discussed in I.B. of this Summary of Comments and Explanation of Revisions, another type of DeFi application relevant to the purchase and sale of digital assets is a DeFi aggregator. DeFi aggregators interact with, and use the services of, other DeFi protocols. BIS Paper at 4. A DeFi aggregator communicates a user's trade order to a DeFi protocol that may offer the most favorable trade execution terms.

Although DeFi applications can facilitate many types of activities, such as non-custodial staking and re-staking, this preamble focuses only on DeFi protocols and DeFi aggregators that enable digital asset users to exchange digital assets for different digital assets, referred to respectively as DeFi trading protocols and DeFi trading aggregators and collectively as DeFi trading applications.

Many of the comments describe DeFi trading applications as having immutable software that cannot be changed. However, many of these DeFi trading applications can simply be replaced by other applications that have new or different features, thus allowing for software upgrades in practice. In other cases, a DeFi trading application may have an "administration key" or similar tool that allows developers, founders, or other persons to modify the software, such as by changing or updating certain variables

within the software. The details of the changes that can be made to the software, and who can make them, however, are different with each DeFi trading application.

3. The Settlement Layer

The settlement layer is at the bottom of the three-layer DeFi technology stack model. The settlement layer is generally responsible for completing financial transactions and discharging the obligations of all involved parties. BIS Paper at 4. Settlement involves recording financial transactions on the distributed ledger. This function is comparable to the clearing and settling of securities transactions, some of which are now being settled through distributed ledger technology. Settlement of a digital asset transaction is achieved by validators including the transaction in a block and adding that block to the blockchain through a consensus mechanism that resolves potential conflicts using consensus standards developed by the distributed ledger network. *Id*. In addition to validators, there are other DeFi participants, such as block builders, that may participate in this process. Once recorded, transactions are generally immutable, meaning they cannot be reversed. The recording of a transaction on the settlement layer generally effects a “state change” in a distributed ledger.

II. Statutory Authority to Treat DeFi Participants as Brokers

A. Background

Before the amendments made to the Infrastructure Act, the definition of broker in section 6045(c)(1) included a dealer, a barter exchange, and a person who (for consideration) regularly acts as a middleman with respect to property or services. *See* section 6045(c)(1)(A), (B), and (C). The Infrastructure Act, in section 6045(c)(1)(D), added a new clause to the 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.

Section 1.6045-1(a)(1)[8] defines brokers that are required to report under section 6045. Under this section, "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" is a broker obligated to file information returns under section 6045. Section 1.6045-1(a)(10) of the pre-TD 10000 regulations defined effect for this purpose to mean either to act as a principal with respect to a sale (for example, a dealer in securities who buys a security from one customer and then sells that security to another customer) or to act as an agent with respect to a sale if the nature of the agency is such that the agent ordinarily would know the gross proceeds of the sale. Because the regulatory definition of the term broker includes a reference to effecting sales, the definition of the term effect affects the types of persons who are treated as brokers. In addition, §1.6045-1(a)(4) further defines a barter exchange that is a broker under section 6045(c)(1)(B) as any person with members or clients that contract either with each other or with such person to trade or barter property or services either directly or through such person.

In §1.6045-1(a)(10)(i)(D), TD 10000 added to the definition of effect: to act as a digital asset middleman for a party in a sale of digital assets. Section 1.6045-1(a)(21)(i) defined a digital asset middleman for this purpose as any person who, with respect to a sale of digital assets, provides a facilitative service. Section 1.6045-1(a)(21)(iii)(B)(*1*) through (*4*) defined a facilitative service by referencing five specific services in which the broker acts either as an agent or a counterparty in a digital asset sale.

Proposed §1.6045-1(a)(21)(iii)(A) would have also included in the facilitative services definition any service that directly or indirectly effectuates a sale of digital assets, such as providing a party in the sale with access to an automatically executing contract or protocol, providing access to digital asset trading platforms, providing an

[8] Unless otherwise qualified, regulation section references refer to the final regulations in effect before the effective date of these final regulations. The final regulations in effect before the effective date of TD 10000 will collectively be referred to as the pre-TD 10000 regulations.

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. To be covered by this proposed rule, under proposed §1.6045-1(a)(21)(i), the person providing facilitative services would have to ordinarily know or be in a position to know the identity of the party making the sale and the nature of the transaction. Proposed §1.6045-1(a)(21)(iii)(A) would have excepted from the definition of facilitative services certain validation services if conducted by a person engaged in the business of providing distributed ledger validation services and certain sales of hardware or licenses of software by persons engaged in the business of selling hardware or licensing 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. TD 10000 reserved on both the facilitative service definition under proposed §1.6045-1(a)(21)(iii)(A) and the definition of the ordinarily would know or position to know standard (together referred to herein as the position to know standard) under proposed §1.6045-1(a)(21)(ii). The proposed text for these provisions is discussed more fully in Parts III.A.2., III.A.3., and III.A.4. of this Summary of Comments and Explanation of Revisions.

B. Comments received

1. The Statutory Language

The Treasury Department and the IRS received numerous comments directed at the facilitative services definition under the proposed new digital asset middleman rules. As a threshold matter, several comments argued that this definition is inconsistent with the plain meaning of the broker definition under section 6045(c)(1)(D). Other comments asserted that the broker definition under section 6045(c)(1)(D) is limited to persons acting as agents in digital asset transactions. One comment cited Merriam-Webster

Dictionary's definition of broker, as "someone who acts as an intermediary: such as . . . an agent who negotiates contracts of purchase and sale . . . [or] an agent who arranges marriages,"[9] as support for this assertion. Other comments reasoned that the term effectuate was meant to be synonymous with the term "effect" in §1.6045-1(a)(10) of the pre-TD 10000 regulations, which, the comment stated, for over 35 years has required the broker to act as an agent (or principal) in the transaction. *See* TD 7873, 48 FR 10302 (March 11, 1983). Another comment also focused on the definition of "customers" in the pre-TD 10000 regulations to similarly argue that section 6045(c)(1)(D) should not expand the scope of the broker definition beyond persons acting as agents or principals in a transaction. Specifically, the term customer is defined in §1.6045-1(a)(2) to mean the person that makes the sale if the broker acts as an agent for such person in the sale, as a principal in the sale, or as a participant in the sale responsible for paying to such person or crediting to such person's account the gross proceeds on the sale. Because the definition of customer under the pre-TD 10000 regulations requires that the broker-customer relationship be an agency, principal, or payor relationship, this comment argued that section 6045(c)(1)(D) should similarly be limited to persons acting as agents or principals in the sale.

As discussed in Parts II.B.1.a. and II.B.1.b. of this Summary of Comments and Explanation of Revisions, the Treasury Department and the IRS do not agree that the statutory language defining broker under section 6045(c)(1)(D) is limited only to persons that act as the customer's agent (or as a principal/dealer) in a digital asset transaction.

a. The definition of broker prior to the Infrastructure Act

For over 35 years, the Code has set forth a broad definition of broker under section 6045(c)(1). Under this definition, the term broker is not limited to conventional

[9] Merriam-Webster Dictionary, "broker," accessed October 25, 2023, https://www.merriam-webster.com/dictionary/broker.

securities brokers. Rather, the statutory language defines the term broker to include several other types of market participants. First, section 6045(c)(1)(A) treats a dealer as a broker. Dealers typically hold inventory and act as principals in sale transactions. *George R. Kemon v. Commissioner*, 16 T.C. 1026 (1951).

Second, under section 6045(c)(1)(B), the term broker includes a barter exchange, which is defined in section 6045(c)(3) to mean any organization of members providing property or services who jointly contract to trade or barter such property or services. Long-standing regulations define a barter exchange to mean any person with members or clients that contract either with each other or with such person to trade or barter property or services either directly or through such person. *See* §1.6045-1(a)(4). The regulations require these barter exchanges to report an exchange of property or services if the barter exchange arranges a direct exchange of property or services among its members or clients. *See* §1.6045-1(e)(2). That is, a barter exchange is treated as a broker if it merely provides the service of bringing together the parties to the exchange, without acting as either an agent or a principal to the exchange.

Third, under section 6045(c)(1)(C), the statutory broker definition includes certain middlemen with respect to property or services. Because the statutory language must be given meaning, the term middleman must include persons who would not otherwise be considered brokers under the definition without section 6045(c)(1)(C). Pursuant to this authority, the section 6045 regulations treat certain payors and agents as brokers, including professional custodians as well as dividend reinvestment agents that do not take custody of customer securities. *See* §1.6045-1(b)(1)(ii) and (v) (*Example 1*). Additionally, the flush language in section 6045(c) expressly exempts a person that manages a farm on behalf of another person from the definition of broker with respect to their farm management activities. *See* H.R. Rep. No. 100-795, at 360 (1988) (the bill exempts farm managers from the requirement of filing a Form 1099-B with respect to

their farm management activities because this information must already be filed, in a more useful format, by these farm managers on a Schedule F, thus, making the Form 1099-B duplicative). This farm-manager exemption shows that Congress broadly construed the term middleman beyond conventional securities brokers. In addition, §1.6045-1(b)(2)(ii) and (vii) (*Example 2*) provide specific exclusions for stock exchanges and clearing organizations, which, absent those exclusions, would be middlemen treated as brokers. Indeed, virtually all other persons that §1.6045-1(b)(2) (*Example 2*) illustrates as non-brokers, including certain stock transfer agents for a corporation, certain escrow agents or nominees, and certain floor brokers on a commodities exchange, are examples of persons that could be considered middlemen.

Thus, prior to the Infrastructure Act, the term broker under section 6045(c)(1) included specified types of principals, custodial agents, non-custodial agents, payors, and service providers, pursuant to the statute and long-standing implementing regulations. *See e.g.*, §1.6045-1(c)(3)(iv) and (c)(4)(iii), (iv), and (v) (*Examples 3*, *4*, and *5*) (multiple broker examples involving one broker that holds the customer's assets and another broker that does not hold the customer's assets). The term broker was not defined by reference to any particular type of property or services. Accordingly, statutory authority existed before the enactment of the Infrastructure Act to treat centralized digital asset exchanges that act as traditional brokers or dealers as brokers for purposes of section 6045(c)(1).

In addition, section 6045(c)(1) also provided statutory authority to treat as a broker any other person that satisfied the definition of broker, dealer, or a middleman with respect to property or services if the middleman regularly acted as such for consideration. *See* Part II.B.2. of this Summary of Comments and Explanation of Revisions, for a discussion of the scope of this authority with respect to DeFi participants.

b. The definition of broker under section 6045(c)(1)(D) as enacted by the Infrastructure Act

Section 6045(c)(1)(D) treats as a broker any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person. This statutory language explicitly addresses certain types of activities not previously addressed expressly by section 6045(c)(1) that are relevant to determining broker status. Section 6045(c)(1)(D) refers to persons who provide specified types of digital asset services, when regularly provided for consideration on behalf of another person. The relevant services are those that effectuate transfers of digital assets. The statutory language treats the person providing those services as a broker.

Statutory language must be construed to avoid rendering it as surplusage. *See TRW, Inc. v. Andrews*, 534 U.S. 19, 31 (2001) (noting the "cardinal principle" of statutory interpretation requires that "if it can be prevented, no clause, sentence, or word shall be superfluous, void, or insignificant."). Accordingly, the Treasury Department and the IRS understand the statutory language to define the term broker in a manner that does not merely restate what was the law prior to the Infrastructure Act.

One comment asserted that the text in section 6045(c)(1)(D) merely expands the broker definition with respect to the new types of assets (digital assets) that must be reported and clarifies that the persons reporting these new types of digital asset transactions must be conducting otherwise similar activities to brokers included in the existing definition of broker. The Treasury Department and the IRS do not agree that section 6045(c)(1)(D) applies only to digital asset brokers that fall within the broker definition under section 6045(c)(1) prior to the Infrastructure Act amendments. As described in Part II.B.1.a. of this Summary of Comments and Explanation of Revisions, section 6045(c)(1) already provided authority to address at least some digital asset brokers prior to the Infrastructure Act amendments. Section 6045(c)(1)(D) was added to

the Code because Congress recognized that, in certain respects, the digital asset industry works differently from the securities industry and that explicit statutory language providing that certain additional digital asset service providers should be treated as brokers was essential to providing clarity on how information reporting rules apply to transactions involving digital assets. Nothing in the text of section 6045(c)(1)(D) limits the scope of digital asset brokers to those that fall within the broker definition under section 6045(c)(1) prior to the Infrastructure Act. Additionally, section 6045(c)(1)(D) does not limit the scope of digital asset brokers to persons who act as agents, because by its terms the statutory language refers to service providers. A person providing services to a customer may or may not be acting as an agent for the customer. Many service providers are not agents for their customers. Section 6045(c)(1)(D) refers to persons providing services and, therefore, is not limited to persons providing services only as agents. Moreover, because persons acting as agents are already included in the broker definition under section 6045(c)(1)(C), limiting section 6045(c)(1)(D) to persons providing services as agents for digital asset transactions would render its text entirely superfluous.

Section 6045(c)(1)(D) also is not limited to persons who effectuate transfers of digital assets. Section 6045(c)(1)(D) applies to any person who provides "any service effectuating transfers," not "any person who effectuates transfers." That is, the statutory language in section 6045(c)(1)(D) applies to persons who provide services to others, which services effectuate digital asset transfers. Given this textual distinction, the Treasury Department and the IRS have determined that section 6045(c)(1)(D) properly applies to persons that supply customers with services that are used by those customers to carry out digital asset transactions. As described in Part I.B.1. of this Summary of Comments and Explanation of Revisions, that is exactly the function provided by trading front-end service providers. For the reasons described in that part,

most digital asset users could not easily carry out a DeFi sale or exchange of digital assets without the services of a trading front-end service provider. Although trading front-end service providers may not act as agents for their customers in these transactions, the services provided by these trading front-end service providers with respect to digital assets enable their customers to trade their digital assets through other DeFi participants, just as the services provided by securities brokers enable their customers to trade their securities through other securities market participants. That is, both trading front-end service providers and securities brokers make it possible for a customer to review a range of options for possible transactions, to make a selection and confirm that selection, and to communicate the details of the transaction that the customer wishes to carry out so that the transaction can be executed and settled by other market participants. Similarly, in both cases, the means by which those services are provided may include a website or mobile device app that provides a series of visual elements, such as forms, buttons that initiate actions, and dynamic page updates, that enable customers to view the market conditions relating to their proposed trades and to interact with that market by inputting their trade orders.

Several comments argued that merely providing customers with software that the customer can use to engage in digital asset transactions does not constitute a “service effectuating transfers.” The Treasury Department and the IRS do not agree that the definition of broker should turn on the technological implementation of the services provided because the statute makes no reference to a particular form of technology. Instead, the definition should turn on what those services do. For example, the fact that, currently, a securities broker or dealer takes customer orders or routes these orders electronically does not change the nature of the services that the securities broker or dealer provides. The provision of a suite of software that enables a customer to interact

with a distributed ledger network and effectuate transactions using DeFi trading applications is an example of providing a service that effectuates transfers.

Numerous comments argued that the term effectuate in section 6045(c)(1)(D) prevents the application of the broker definition to DeFi participants because these participants do not control the private keys to the customer's digital assets being traded. As support for this argument, one comment cited a dictionary's definition of effectuate as "to cause or bring about (something)" and a Supreme Court interpretation of the meaning of "effect" as requiring a "reasonably close causal relationship between a change in the physical environment and the effect." *See* Effectuate, *Merriam-Webster Online*, https://www.merriam-webster.com/dictionary/effectuate; *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1984). This comment also compared transactions in which DeFi participants do not control the private keys to the customer's digital assets with those carried out by traditional securities brokers in which the brokers hold custody of the customer's securities and then asserted that the definition of effectuate cannot apply to the services provided by DeFi participants. Other comments argued that the word effectuate was meant to apply only to the one person who carries out the transaction. These comments concluded that expansion of the reporting regime under section 6045 to persons that do not possess traditional characteristics of a broker in carrying out transactions exceeds the scope of the statute.

The Treasury Department and the IRS do not agree that the actions of only one person, whether within the traditional securities industry or within the DeFi industry, causes a transaction to be carried out (or effectuated), which is why the pre-TD 10000 regulations contain a multiple broker rule. The Treasury Department and the IRS do agree, however, that a comparison of the persons involved in the steps necessary to carry out a securities transaction with the services involved in the steps necessary to carry out a DeFi transaction is helpful to understanding what it means to effect or

effectuate a transaction. For purposes of this analysis as well as throughout these final regulations, the term person has the meaning provided by section 7701(a)(1) of the Code, 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, such as a partnership. The term person includes a business entity that is treated as an association or a partnership for Federal tax purposes under §301.7701-3(b). Accordingly, a group of persons providing services that together carry out a customer's digital asset transaction may be treated as a broker whether or not the group operates through a legal entity if the group is treated as a partnership or other person for U.S. Federal income tax purposes.

As discussed in Part I.A. of this Summary of Comments and Explanation of Revisions, in the securities industry, the steps of a transaction typically begin when an investor communicates a trade order to a securities broker, who may or may not have custody of the investor's securities, and authorizes the securities broker to carry out the trade. The securities broker generally will assess how to obtain the best execution for the customer. That assessment could lead the broker to fill the order from its own account or match the trade with an offsetting trade order from another customer. The broker could also decide to route the investor's order to a trading center, such as a national securities exchange, an alternative trading system, or a dealer. The exchange or other trading center generally will attempt to find a counterparty to the investor's order. If the order is executed, transaction information typically will be sent to a clearing organization that will move the funds and securities between the appropriate accounts at the clearing organization to settle the transaction. The regulations under section 6045 treat only one of these securities industry participants as the broker with reporting obligations. *See* §1.6045-1(b)(2)(ii) and (vii) (*Example 2*) (not treating certain stock exchanges and clearing organization as brokers). Notwithstanding this rule, each of

these participants technically meets the definition of a person who effects (or "act[s] as . . . an agent for a party [albeit not the customer] in the sale" if it ordinarily would know from its services the gross proceeds from the sale). *See* §1.6045-1(a)(10)(i)(A). Accordingly, it is the actions of all these securities industry participants—along with those of the customer—that collectively cause the transaction to be carried out.

Similarly, as discussed in Parts I.B. and I.B.1. through I.B.3. of this Summary of Comments and Explanation of Revisions, the DeFi technology stack model shows that, in addition to the customer, there are multiple DeFi participants involved in causing a digital asset transaction to be carried out. In the DeFi industry, when a customer inputs a trade order on a mobile device app or a website accessible via computer or mobile device, a trading front-end service provider receives that trade order and has the customer confirm the trade order details. Once the trade order details are confirmed by the customer on the customer's computer or mobile device, the trading front-end services translate those details into coded trade order instructions which are sent to the customer's unhosted wallet to obtain the customer's signature or authorization. Thereafter, the wallet transmits the coded trade order instructions to the distributed ledger network for the eventual interaction with the applicable DeFi trading application for matching and for settlement pursuant to the services of DeFi participants operating at the settlement layer. Importantly, like the traditional securities transaction, the actions of the customer and all these DeFi participants collectively cause the transaction to be carried out. Accordingly, like in the securities industry, in which the customer, the securities broker, the securities exchange, and the clearing organization are all typically needed to carry out a securities transaction, in a DeFi transaction, the customer, the trading front-end service provider, the DeFi application, and the validator are all typically needed to carry out the DeFi transaction.

Regarding the comment that the definition of effectuate cannot apply to DeFi participants that do not control the private keys to the customer's digital assets, as discussed in Part II.B.5. of this Summary of Comments and Explanation of Revisions, the Treasury Department and the IRS do not agree with this comment because the current broker rules as applied to the securities industry treat persons without custody of a customer's assets as a broker under section 6045. *See e.g.*, §1.6045-1(c)(3)(iv) and (c)(4)(iii), (iv), and (v) (*Examples 3*, *4*, and *5*) (examples treating persons that do not hold the customer's assets as brokers).

2. Title of the Broker Definition in the Infrastructure Act

Several comments argued that the existing scope of activities that give rise to treating a person as a broker should not be expanded to cover DeFi participants because section 80603(a) of the Infrastructure Act titled the new broker definition as a "clarification of [the] definition of broker." One comment stated that the definition of broker under section 6045(c)(1)(D) is limited to agents and principals. Another comment stated that a broker under section 6045(c)(1)(D) must be a middleman. Another comment stated that a middleman under section 6045(c)(1)(D) must be an intermediary. The Treasury Department and the IRS do not agree that limiting the meaning of section 6045(c)(1)(D) to persons acting as the customer's agent or a principal in the transaction is required by the definition of broker under section 6045(c)(1)(A) through (C) because, except for section 6045(c)(1)(A), which is specifically limited to dealers, the definition of broker includes no such limitation. As discussed in Part II.B.1.a. of this Summary of Comments and Explanation of Revisions, under section 6045(c)(1)(B) and the regulations thereunder, the term broker includes a barter exchange that is not acting as a customer's agent or as a dealer or principal. Similarly, under section 6045(c)(1)(C), the term broker includes any other person who (for a consideration) regularly acts as a middleman with respect to property or services.

Although the term middleman is not defined in the statute, the term is used in other tax information reporting rules to refer generally to persons acting in a variety of capacities relevant to the particular function, for example, making payment. *See e.g.*, §1.6049-4(a)(2)(ii) (the term "payor" includes a middleman as defined in §1.6049-4(f)(4)); §1.6049-4(f)(4)(i) (middleman means any person who makes payment of interest for, or collects interest on behalf of, another person, or who otherwise acts in a capacity as intermediary between a payor and a payee, and also includes a trustee). Outside tax law, however, the term is used more broadly to include persons that make referrals to others so that these others can negotiate a sale between themselves in addition to those that act as agents for others. *See e.g.*, *Dickson Marine Inc. v. Panalpina*, 179 F.3d 331 (5th Cir. 1999). In *Dickson Marine Inc.*, the court found that an intermediary making a referral was a middleman and not the agent of another person where that other person did not assert sufficient control over the intermediary to establish an agency relationship. *See also Rauscher Pierce Refsnes, Inc. v. Great Sw. Savs., F.A.*, 923 S.W2d 112, 115 (Tex. App.1996) (middleman means a broker whose "duty consists merely of bringing the parties together so that, between themselves, they may negotiate a sale, . . . [without that broker] necessarily [acting as] the 'agent' of either party.")

Thus, the middleman reference in section 6045(c)(1)(C) can be understood as broad enough to cover a person that is not an agent or principal to a transaction but brings parties together so that those parties can negotiate and finalize the transaction. That is, DeFi participants provide persons with technological services that enable those persons to carry out DeFi transactions. Treating section 6045(c)(1)(D) as a clarification of section 6045(c)(1)(C) renders it unnecessary to determine the full scope of the term middleman in section 6045(c)(1)(C) as applied to digital asset brokers. The legislative history to section 6045(c)(1)(D) supports this interpretation of section 6045(c)(1)(D) as a

clarifying change intended to eliminate the need to determine which digital asset participants might qualify as middlemen. *See* the Joint Committee on Taxation's description of section 6045(c)(1)(D) as a clarification of the then-existing broker definition to resolve uncertainty over whether certain market participants are brokers, as entered into the Congressional Record. 167 Cong. Rec. S5702, 5703 (daily ed. August 3, 2021) (Joint Committee on Taxation, Technical Explanation of Section 80603 of the Infrastructure Act). This conclusion is also supported by the fact that the clarified broker definition, along with the other changes made by the Infrastructure Act to sections 6045, 6045A, and 6050I, were estimated by the Joint Committee on Taxation to raise $28 billion over 10 years.[10] In contrast, an interpretation of section 6045(c)(1)(D) as confined to just middlemen acting as agents or principals would not have raised as much revenue because digital asset brokers acting in this capacity were already covered by the definition of broker under section 6045(c)(1)(C).

The policy behind the statute's clarification of the broker definition also supports this broader interpretation of section 6045(c)(1)(D). Congress extended the information reporting rules under section 6045 to digital assets to close or significantly reduce the income tax gap from unreported income and to provide information about these transactions to taxpayers. *See* 167 Cong. Rec. S5702, 5703 (daily ed. August 3, 2021) (Joint Committee on Taxation, Technical Explanation of Section 80603 of the Infrastructure Act). According to the Government Accountability Office (GAO), limits on third party information reporting to the IRS is an important factor contributing to the tax gap. GAO, *Tax Gap: Multiple Strategies Are Needed to Reduce Noncompliance*, GAO-19-558T at 6 (Washington, DC: May 9, 2019). Third party information reporting

[10] *See* JCT, JCX-33-21, *Estimated Revenue Effects of the Provisions in Division H of an Amendment in the Nature of a Substitute to H.R. 3684*, Offered by Ms. Sinema, Mr. Portman, Mr. Manchin, Mr. Cassidy, Mrs. Shaheen, Ms. Collins, Mr. Tester, Ms. Murkowski, Mr. Warner and Mr. Romney, The "Infrastructure Investment and Jobs Act" (August 2, 2021).

generally leads to higher levels of taxpayer compliance because the income earned by taxpayers is made transparent to both the IRS and taxpayers. An information reporting regime requiring reporting to the IRS on digital asset transactions would benefit tax compliance by helping to close the information gap with respect to digital assets. *See* TIGTA, Ref. No. 2020-30-066, *The Internal Revenue Service Can Improve Taxpayer Compliance for Virtual Currency Transactions*, 10 (September 2020); GAO, *Virtual Currencies: Additional Information Reporting and Clarified Guidance Could Improve Tax Compliance*, 28, GAO-20-188 (Washington, DC: February 2020). Reducing the tax gap and providing information to taxpayers is no less important when a DeFi participant, acting as a middleman, provides parties with technological services that enable those parties to carry out the DeFi transaction. Indeed, clear information reporting rules that require reporting of gross proceeds from a sale of digital assets in DeFi transactions will help the IRS identify taxpayers who have engaged in these transactions. These rules will also remind taxpayers who engage in DeFi transactions that the transactions are taxable, thereby reducing the number of inadvertent errors or noncompliance on their Federal income tax returns. Any exception to the information reporting rules for DeFi participants that have access to the necessary information about the transactions simply because they are offering their services through software, instead of through human interaction, would reduce the effectiveness of the information reporting rules. Moreover, such an exception could have the unintended effect of incentivizing taxpayers to change how they undertake digital asset transactions, thus thwarting voluntary compliance and IRS enforcement efforts to identify taxpayers engaged in digital asset transactions that have not reported their income properly.

3. Legislative History

As support for interpreting section 6045(c)(1)(D) as applicable only to persons acting as agents (or principals/dealers), several comments cited to several statements

made by Senators as the Infrastructure Act was being considered. For example, one comment cited Senator Portman's statements made during a colloquy with Senator Warner (the colloquy), which referred to the intended purpose of the reporting rule not being "to impose new reporting requirements on people who do not meet the definition of brokers." 167 Cong. Rec. S6095 (daily ed. August 9, 2021). Several comments cited Senator Warner's statements made during the colloquy referencing the intended application of the reporting rule to "digital asset exchanges or hosted wallet providers, often called custodians, or other agents involved in effectuating digital asset transactions." 167 Cong. Rec. S6095 (daily ed. August 9, 2021). Finally, another comment argued that Congress meant to limit the definition of broker to custodial brokers and referenced as support an article that quoted Senator Toomey saying that the definition of broker in the legislation was overly broad and "sweeps in nonfinancial intermediaries like miners, network validators, and other service providers . . .[that] never take control of a consumer's assets and don't even have the personal-identifying information needed to file a 1099 with the IRS."[11]

The Treasury Department and the IRS do not agree that these statements limit the Secretary's authority under section 6045(c)(1)(D) to only persons acting as agents (or principals/dealers). The plain language of the statute is the authoritative statement of a statute's meaning, and that language does not impose any such limitation. Moreover, the Senators' statements referred to in these comments, when read in full, reflect a fundamental concern with the potential application of section 6045(c)(1)(D) to persons that do not have access to the information needed to be reported, such as certain validators and developers of computer hardware and software for unhosted wallets. This fundamental concern was also reflected in a compromise amendment the Senate

[11] Laura Weiss, *Wyden wants tweaks to infrastructure bill's cryptocurrency rules*, Roll Call (August 2, 2023), available at: https://rollcall.com/2021/08/02/wyden-wants-tweaks-to-infrastructure-bills-cryptocurrency-rules/ (last visited October 17, 2024).

considered that would have revised the broker definition to “any person who (for consideration) regularly effectuates transfers of digital assets on behalf of another person.’’ Importantly, this compromise amendment also included two rules of construction providing that the amended definition of broker shall not be construed to create any inference that such definition includes any person “solely engaged in the business of—(A) validating distributed ledger transactions, without providing other functions or services, or (B) selling hardware or 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.” *See* 167 Cong. Rec. S6131-2 (daily ed. August 9, 2021) (Senate Amendment 2656). *See also* 167 Cong. Rec. S6096 (daily ed. August 9, 2021) (Senator Warner’s statement in the colloquy that persons solely engaged in validating transitions and persons solely engaged in selling hardware or software with the sole function of permitting someone to control private keys used to access digital assets will not be treated as brokers under the proposed compromise amendment).

Although this compromise amendment was not adopted due to issues unrelated to the broker definition, the Treasury Department and the IRS have long held the view that the broker definition under section 6045(c)(1) should not apply to ancillary parties who cannot get access to information that is useful to the IRS. Indeed, notwithstanding the authority provided by section 6045(c)(1)(C) to treat middlemen as brokers, the section 6045 regulations impose broker reporting obligations only on those market participants in the securities industry that have the requisite information about the securities sales of their customers even though other market participants that do not have this information also act as middlemen in carrying out these sales. *See e.g.*, §1.6045-1(b)(2)(i) (stock transfer agent that ordinarily would not know the gross proceeds from sales not treated as broker); 1.6045-1(b)(2)(v) (floor broker that maintains no records with respect to the terms of sales not treated as broker).

Several comments cited to private sector publications describing unenacted prior drafts of the Infrastructure Act legislation and in particular drafts of the broker definition to argue that the definition in section 6045(c)(1)(D) cannot be interpreted to apply to DeFi platforms. According to a source cited by one comment, one prior draft would have provided that a broker includes "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."[12] According to another source cited by a different comment, another prior draft would have provided that a broker includes "any person who (for consideration) regularly provides any service or application (even if noncustodial) to facilitate transfers of digital assets, including any decentralized exchange or peer-to-peer marketplace."[13] The Treasury Department and the IRS do not agree that these reported drafts of the broker definition support the more limited definition proposed by the comments. The text of the bills referred to in these comments does not reflect consideration by any member of Congress because these draft bills were not introduced. As such, they are not legislative history for the enacted amendments to section 6045.

One comment referenced several proposals to amend the current definition of broker that were introduced after the Infrastructure Act was enacted. These post-enactment proposals would limit the broker definition to persons who effect sales at the direction of their customers rather than persons who provide services effectuating transfers. *See e.g.*, Lummis-Gillibrand Responsible Financial Innovation Act, S. 2281, 118th Cong. 802 (2023) (defining the term "broker" to mean "any person who (for

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[12] Ella Beres, *Crypto Tax Enforcement Update: The New Broker Definition in the Information Reporting Requirement Provision of the Infrastructure Bill Aims to Exclude Node Operators, Miners, and Validators*, Davis Wright Tremaine LLP (August 3, 2021); available at: https://www.dwt.com/insights/2021/08/crypto-tax-enforcement-update.

[13] Jason Brett, *New Language For Crypto Tax Reporting Excludes Decentralized Exchanges, Miners Still Vulnerable*, Forbes (August 2, 2021); available at: https://www.forbes.com/sites/jasonbrett/2021/08/02/new-language-for-crypto-tax-reporting-excludes-decentralized-exchanges-miners-still-vulnerable/?sh=41b5027b5f56.

consideration) stands ready in the ordinary course of business to effect sales of crypto assets at the direction of their customers"); Keep Innovation in America Act, H.R. 1414, 118th Cong. 2 (2023) (defining "broker" to include "any person who (for consideration) stands ready in the ordinary course of a trade or business to effect sales of digital assets at the direction of their customers"). The comment argued that these proposals indicate an intent to clarify the meaning of the broker definition under section 6045(c)(1)(D) so that the provision does not apply to DeFi participants. The Treasury Department and the IRS do not agree that the language within proposals to amend a statute offered after that statute is enacted are persuasive authority for how to interpret the meaning of the enacted statute. If anything, if the purpose of the proposed legislation is to change the language of the statute to prevent the application of the broker definition to DeFi participants, that would support the interpretation that the statute as enacted applies to such participants.

4. Comparison of the Broker Definition with Standards Applied by Other Governmental Bodies

Several comments argued that the definition of broker as applied to digital assets should conform to standards developed by governmental bodies outside the purview of title 26. The Treasury Department and the IRS do not agree that rules or regulations outside the purview of title 26 should determine the scope of these final regulations.

Several comments argued that the definition of broker as applied to digital assets should be confined to persons acting as agents so that it would be consistent with the standard recommended by the Financial Action Task Force (FATF), an inter-governmental body that includes the United States and 39 other member nations and aims to prevent global money laundering and terrorist financing. In 2018, FATF modified its recommendations to member nations to address virtual assets and virtual asset

service providers (VASPs).[14] In 2021, FATF issued updated guidance intended to help national authorities and private sector entities to develop and understand anti-money laundering/counter-terrorism financing rules as applied to virtual asset activities and VASPs. This guidance specifically addresses DeFi arrangements.[15] The Treasury Department and the IRS do not agree that the standard set forth in the 2021 FATF Guidance is limited to persons acting as agents. The 2021 FATF Guidance specifically states that creators, owners and operators, and some other persons who maintain control or sufficient influence in the DeFi arrangements, even if those arrangements seem decentralized, may fall under the FATF definition of a VASP when they provide or actively facilitate VASP services. Moreover, FATF's Targeted Update on Implementation of the FATF Standards on VAs and VASPs issued in June 2024 reports that nearly half of surveyed jurisdictions either require certain DeFi arrangements to be licensed or registered as VASPs. Over 40 percent of remaining surveyed jurisdictions reported taking steps to identify and address risks in the DeFi ecosystem.[16]

Several comments suggested that the broker definition under section 6045(c)(1)(D) should be limited to custodial digital asset brokers so that it would be consistent with the broker reporting rules of other jurisdictions. As support, one comment cited the definition of "Reporting Crypto-Asset Service Provider" (RCASP) under the Crypto-Asset Reporting Framework (CARF),[17] a framework for the automatic exchange of information between countries on crypto-assets developed by the

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[14] FATF (2018), *Report to the G20 Leaders' Summit*, available at https://www.fatf-gafi.org/content/dam/fatf-gafi/reports/Report-G20-Leaders-Summit-Nov-2018.pdf.
[15] FATF (2021), *Updated Guidance for a Risk-Based Approach, Virtual Assets and Virtual Asset Service Providers*, ¶67-69, pp. 27-28, FATF, Paris. (2021 FATF Guidance), available at: https://www.fatf-gafi.org/publications/fatfrecommendations/documents/guidance-rba-virtual-assets-2021.html.
[16] *See* FATF (2024), *Targeted Update on Implementation of the FATF Standards on Virtual Assets and Virtual Asset Service Providers*, ¶53, p. 28. FATF, Paris, France, available at https://www.fatf-gafi.org/content/dam/fatf-gafi/recommendations/2024-Targeted-Update-VA-VASP.pdf.coredownload.inline.pdf.
[17] *International Standards for Automatic Exchange of Information in Tax Matters: Crypto-Asset Reporting Framework and 2023 update to the Common Reporting Standard*, OECD Publishing, Paris, June 8, 2023, available at: https://www.oecd.org/en/publications/international-standards-for-automatic-exchange-of-information-in-tax-matters_896d79d1-en.html (Crypto-Asset Reporting Framework).

Organisation for Economic Co-operation and Development (OECD), to which the United States is a party. Specifically, this comment argued that the proposed definition of broker would be inconsistent with the definition of RCASP, which provides that an RCASP includes someone that acts as a counterparty or intermediary in exchange transactions or that otherwise makes available a trading platform.[18] Another comment argued that the definition of crypto asset services under the European Union's Markets in Crypto-Assets Regulation (MICA)[19] also includes only centralized exchanges and custodial brokers.

The Treasury Department and the IRS do not agree that the CARF definition of RCASP is inapplicable to DeFi participants. Indeed, a frequently asked question (FAQ) relating to this issue was recently published by the OECD Committee on Fiscal Affair's Working Party 10, which is the OECD group that developed the CARF. The question addressed in the FAQ is whether the definition of RCASP excludes non-custodial services that effectuate exchange transactions.[20] The term RCASP is defined as "any individual or Entity that, as a business, provides a service effectuating Exchange Transactions for or on behalf of customers, including [. . .] by making available a trading platform."[21] The FAQ answer explains that, for purposes of that definition, a trading platform may be made available by an individual or Entity with or without offering custodial services. Accordingly, the CARF definition of RCASP does not exclude DeFi participants.

Finally, the Treasury Department and the IRS do not agree that the MICA definition of crypto-asset services is limited only to centralized exchanges and custodial

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[18] *See Rules*, Section IV.B., Crypto-Asset Reporting Framework.
[19] *Markets in Crypto-Assets Regulation (MICA) Regulation (EU) 2023/1114 of the European Parliament and the Council of 31 May 2023 on markets in crypto-assets*, Official Journal of the European Union, Volume 66, June 9, 2023, available at: https://eur-lex.europa.eu/eli/reg/2023/1114/oj (MICA).
[20] OECD, *Crypto-Asset Reporting Framework: Frequently Asked Questions*, September 2024, available at https://www.oecd.org/content/dam/oecd/en/topics/policy-issues/tax-transparency-and-international-co-operation/faqs-crypto-asset-reporting-framework.pdf.
[21] *See Rules*, Section IV.B, Crypto-Asset Reporting Framework.

brokers. Title 1, Article 3 of MICA defines crypto-asset services to include the operation of a trading platform for crypto-assets and the custody and administration of crypto-assets on behalf of clients. Recital 22 of MICA makes it clear that crypto-asset services that are in part "performed in a decentralised manner" fall within its scope and excludes crypto-asset services only when they are "provided in a fully decentralised manner without any intermediary." To the extent that assertedly decentralized DeFi crypto-asset service providers in fact have a degree of centralized control, MICA treats those service providers as within its scope. Moreover, financial laws or regulations of a non-U.S. government or union of governments do not determine the scope of U.S. tax rules.

5. Miscellaneous Comments

One comment suggested that the broker definition under section 6045(c)(1)(D) is limited to custodial brokers because any application to non-custodial brokers would be an unprecedented expansion of the section 6045 reporting obligations. As support for this position, this comment stated that the application of the transfer statement requirements under section 6045A(a) to certain transfers of digital assets to brokers reflects Congress's focus on custodial brokers because those rules apply only to transfers to custodial brokers. Additionally, this comment argued that the new reporting obligation under section 6045A(d), which requires reporting on certain transfers of digital assets from accounts maintained by a broker, also reflects Congress's focus on custodial brokers. The Treasury Department and the IRS do not agree that the broker definition under section 6045(c)(1)(D) is limited to only custodial digital asset brokers. Section 6045A(a) cross references section 6045(c)(1) for the definition of broker, and there is no custodial broker limitation in the definition of broker in section 6045(c)(1). As discussed in the securities industry background in Part I.A. of this Summary of Comments and Explanation of Revisions, a securities broker may or may not hold customer assets in custody. The pre-TD 10000 regulations applied to securities brokers

whether or not they provide custodial services. Additionally, dealers that are brokers under section 6045(c)(1)(A) can transact with customers without providing custodial services to those customers. Members of barter exchanges that are brokers under section 6045(c)(1)(B) can similarly exchange property or services with other members without the barter exchange holding custody of the traded property or services. *See* §1.6045-1(e)(2)(i). Finally, the multiple broker rules under long-standing regulations illustrate fact patterns that demonstrate that not all persons treated as brokers under section 6045 are custodial brokers. *See e.g.*, §1.6045-1(c)(3)(iv) (cash on delivery) and (c)(4)(iii) and (iv) (*Examples 3* and *4*).

One comment suggested that the final regulations should treat as the broker only the DeFi participant that performs the actions without which the transaction could not be carried out. As the DeFi technology stack model shows, however, this proposed "but for" standard would most likely result in all the DeFi participants being treated as performing essential actions without which the transaction could not be carried out. The DeFi technology stack model shows that, in addition to the customer, there are multiple DeFi participants involved in causing a digital asset transaction to be carried out. Each of these DeFi participants provide services that are necessary to effectuate a transaction. The section 6045 regulations treat multiple parties in the securities industry that are involved in effecting a securities transaction as brokers and include a multiple broker rule to avoid duplicative reporting. As is discussed in Part III.A.1. of this Summary of Comments and Explanation of Revisions, however, these final regulations treat only one of these DeFi participants as the broker based on a determination of which DeFi participant is in the best position to provide the necessary reporting on the digital asset transactions of customers.

Several comments argued that retaining the broker definition in §1.6045-1(a)(1) of the pre-TD 10000 regulations for digital asset broker reporting oversteps the statutory

authority given to the Secretary because that definition fails to include a requirement that the broker's activities be undertaken "regularly" and "for consideration" as required under section 6045(c)(1)(D). Another comment recommended that this "for consideration" requirement be added to the "trade or business" requirement in the broker definition under the regulations. The Treasury Department and the IRS do not agree that the broker definition fails to include these requirements. A broker is defined in §1.6045-1(a)(1) 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." Under *Groetzinger v. Commissioner*, 480 U.S. 23 (1987), persons "engaged in a trade or business . . . must be involved in the activity with continuity and regularity . . . for income or profit." Accordingly, the requirement that the person effect sales in the "ordinary course of a trade or business" is sufficient to ensure that the person treated as a broker under section 6045(c)(1)(D) "regularly" effects those sales "for consideration."

One comment requested further guidance on what the "for consideration" requirement means in the context of the DeFi industry. Another comment argued that the "for consideration" requirement in the statute requires that the person providing the effectuating services earn consideration from each specific transaction effectuated to be included in the broker definition. The Treasury Department and the IRS do not agree that the text of the statute mandates such a narrow interpretation of this requirement or that it is necessary for these final regulations to address its meaning in the context of the DeFi industry. The same "for consideration" requirement has existed in the broker definition under section 6045(c)(1)(C) for over forty years, yet there is no exception for brokers providing services on an overall flat-fee basis or as a percentage of total invested assets. Moreover, such an exception would likely incentivize DeFi participants or other brokers to modify their fee models to avoid reporting, a result that would thwart the goals of information reporting.

III. Definitions of a Digital Asset Middleman and an Effectuating Service

Section 1.6045-1(a)(21)(i) defines a digital asset middleman as any person who, with respect to a sale of digital assets, provides a facilitative service. Section 1.6045-1(a)(21)(iii)(B)(*1*) through (*4*) defines a facilitative service by referencing five specific services in which the broker acts either as an agent or a counterparty in a digital asset sale. As discussed in the Background, TD 10000 reserved on the portion of the facilitative services definition included in proposed §1.6045-1(a)(21)(iii)(A) that would have defined a facilitative service as any service that directly or indirectly effectuates a sale of digital assets, such as 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.

Several comments argued that the proposed definition of facilitative services was too broad because it referred to services that both directly and indirectly effectuate sales of digital assets. Another comment argued that a standard that captures services that indirectly effectuate transactions would have no discernible limits. Several comments stated that this broad definition would apply the broker definition to internet browsers, smartphone manufacturers, internet service providers, and many other persons not even considered part of the DeFi industry because these participants arguably "indirectly" effectuate transactions. One comment said that the definition's inclusion of services that "indirectly" effectuate transactions would treat as brokers persons who are not in the chain of proceeds settlement, such as fund administrators, which provide ancillary administrative services relating to a sale. Many of these comments

recommended narrowing the definition of facilitative service to only include services that directly effectuate a sale.

The Treasury Department and the IRS agree that the proposed facilitative services definition's reference to services that indirectly effectuate sales of digital assets is too broad. The Treasury Department and the IRS did not intend to include in the definition of broker persons not within the DeFi industry, such as internet service providers, internet browsers, or computer or smartphone manufacturers. Accordingly, to address this concern, as discussed in Parts III.A. through III.C. of this Summary of Comments and Explanation of Revisions, the final regulations narrow the scope of DeFi participants that meet the definition of a digital asset middleman. Additionally, to make it clear that the reach of the digital asset middleman definition in this regard is not any broader than the broker definition under section 6045(c)(1)(D), the final regulations change the term facilitative services used in the proposed definition of digital asset middleman to the term effectuating services.

One comment stated that the definition of facilitative services would capture all participants described in the DeFi technology stack model resulting in duplicative reporting. Another comment stated that the facilitative services definition results in disparate treatment for DeFi participants in a digital asset transaction than is applied under current law to securities industry participants providing analogous services in a securities transaction. For example, this comment argued that the NYSE and Nasdaq are not brokers for section 6045 purposes, but analogous businesses in the DeFi industry would be brokers under the proposed facilitative services definition. Although, as discussed in Part II.B.1.b. of this Summary of Comments and Explanation of Revisions, the definition of broker under section 6045(c)(1)(D) is broad enough to include multiple DeFi participants involved in a DeFi transaction, the Treasury Department and the IRS have determined that such a broad definition could result in

duplicative reporting. Accordingly, the Treasury Department and the IRS have determined that in these final regulations the only DeFi participants that should be treated as brokers are trading front-end service providers. This determination was made for several reasons, which are discussed in more detail in the remainder of this Part III. of this Summary of Comments and Explanation of Revisions. First, such providers are the DeFi participants that have the closest relationship to customers and therefore are in the best position to obtain customer identification information. Second, numerous commenters expressed concerns regarding, in the view of the comments, the difficulty in identifying operators of DeFi trading applications and the potential difficulty such operators would have in changing the potentially immutable code of those DeFi trading applications. Those concerns are not as salient to trading front-end service providers because those providers typically are legal entities or individuals and the software used to provide trading front-end services is not immutable. Accordingly, the persons responsible for carrying out broker diligence and reporting will be easy for taxpayers and the IRS to identify, and those providers have the capability to modify their operations to comply with these regulations. Appropriately, these DeFi participants are also the participants that provide services that are most analogous to the functions performed by brokers in the securities industry.

A. Interface layer activities

1. In General

In addition to other listed services, the proposed regulations would have included in the definition of facilitative services certain services that are described in the DeFi technology stack model as interface layer services and which are referred to in this preamble as trading front-end services. Specifically, proposed §1.6045-1(a)(21)(iii)(A) would have included in the definition of facilitative services any service that provides a party in the sale with access to an automatically executing contract or protocol or digital

asset trading platform. To illustrate the meaning of providing a party with such access, proposed §1.6045-1(b)(17) (*Example 17*) describes a website that matches buyers and sellers of digital assets and thereafter directs such buyers and sellers to use automatically executing contracts to settle their matched transactions and concludes that the website is an example of providing these access services.

One comment suggested that instead of referring to the services that provide "access to an automatically executing contract or protocol or digital asset trading platform," the final regulations should refer to these services as "front-end services" because the front-end term captures not only the visual elements provided by a website that offers these services but also the software that powers the interactive features of the website or mobile app, such as forms, buttons that initiate actions, and dynamic page updates without full page refreshes. The Treasury Department and the IRS agree with this recommendation and have adopted the front-end services terminology referred to herein as trading front-end services.[22]

One comment stated that DeFi systems, including those created by software developers, operators of DeFi protocols, and trading front-end service providers, are purely software infrastructure used for communication and coordination. This comment argued that these services are akin to those of a phone service provider, and therefore none of these DeFi participants participate in the buying or selling of digital assets. Another comment asserted that the definition of facilitative services should not apply to trading front-end services used by customers to interact with DeFi trading applications because these services are merely informational services, much like those provided by Google, Yahoo! Finance, or Wikipedia to internet users seeking information. This comment argued that, in all these cases, the service provider is merely generating and

[22] This preamble also uses the trading front-end services term in describing the comments received even when those comments refer to these services using different terms, such as user interface services or application programming interface.

displaying information in response to user inputs, and, as such, should not be treated as carrying out what the user does with the provided information. Another comment suggested that trading front-end services should not be treated as facilitative services because these services are merely tools that are used by customers to access the DeFi ecosystem. Another comment similarly argued that trading front-end service providers merely provide tools through which customers can participate on their own in a DeFi transaction. This comment likened coded trade order instructions to a torque wrench that a person purchases to repair their own car as opposed to engaging a licensed mechanic who already owns a torque wrench to repair the person's car. One comment argued that the final regulations should treat DeFi trading applications as brokers, not trading front-end service providers. In contrast to these comments, a few comments acknowledged that trading front-end service providers should be the DeFi participant treated as brokers that are required to report under section 6045. One comment requested that the final regulations clarify that trading front-end service providers are brokers. This comment also noted that the software used by trading front-end service providers to perform these services can be modified and customized to comply with regulatory requirements and are already being modified by some market participants to comply with anti-money laundering (AML) and Know Your Customer (KYC) obligations under the Bank Secrecy Act (BSA) (31 U.S.C. 5311 *et seq*.).

The Treasury Department and the IRS agree that the suite of services offered by a trading front-end service provider, including the generation of customized coded trade order instructions, are provided through software that is used for communication and coordination of functions on the distributed ledger network. The Treasury Department and the IRS do not agree, however, that persons providing trading front-end services that enable their customers to interact with DeFi trading applications are akin to those of a phone service provider or are merely providing informational services like that of a

search engine or that such services are analogous to buying off-the-shelf tools to repair one's own car because trading front-end services enable customers to engage in DeFi transactions. As discussed in Part I.B.1. of this Summary of Comments and Explanation of Revisions, trading front-end service providers offer a suite of services that enable their customers to view an array of choices relating to their proposed trades, to input their proposed trades, and then to initiate the additional steps necessary to trade their digital assets by interacting with other DeFi participants operating within the distributed ledger network. The suite of trading front-end services also includes, in some cases, interacting with customers in advance of a trade order to obtain their permission for a DeFi trading protocol to move digital assets out of the customers' wallets and converting these customer permissions into software code that can later interact with the DeFi trading protocol when a transaction is executed by the DeFi trading protocol. Once the customer authorizes the transaction, the coded trade order instructions prepared by the trading front-end services determine the subsequent steps in the transaction as it is processed, including calling the applicable DeFi protocol's automatically executing contracts for automatic execution and settlement if the transaction is included in a block and added to the blockchain by a validator. Consequently, not only do the suite of services offered by the trading front-end service provider supply the customer with information, but these services are also essential and integral to enabling the customer's order to be communicated, understood, and executed by the other DeFi participants operating within the distributed ledger network. Accordingly, the suite of services provided by a trading front-end service provider are not analogous to a torque wrench used to repair one's own car because, once customers authorize or sign the transaction in their wallets, the functions conducted thereafter within the distributed ledger network are all initiated by the services provided by the trading front-end service provider (including the coded trade order instructions) whereas buyers of torque wrenches need to use their

own skill to repair their cars. In the former case, the services provided to the customer effectuate the transaction via the coded trade order instructions whereas in the latter case, the buyer of the torque wrench, not the torque wrench itself, repairs the car.

Additionally, it should be noted that trading front-end services are analogous to the services provided by securities brokers in the securities industry. When a securities broker receives an investor's order to sell securities, it will generally have some mechanism to verify the order details. The securities broker will then route the order to a securities exchange or other trading center for execution or fill or match the order internally. If a transaction is ultimately executed, the transaction information typically will be sent to a clearing organization that will record and settle the transaction by moving the traded securities and funds between the appropriate accounts. That is, once the customer has provided the trade order details to the securities broker and authorized the transaction, the remaining steps in a transaction that is executed by a securities exchange or other trading center take place pursuant to the securities broker's communications with other market participants. The securities broker functions as the recipient of the customer's order and the intermediary that typically communicates the customer's trade order to other market participants for eventual execution of that order.

Like the services provided by securities brokers in the securities industry, a trading front-end service provider receives a customer's trade order, verifies the order details, and obtains confirmation from the customer. Although the trading front-end service provider may not obtain the customer's final authorization for the transactions or transmit the coded trade order instructions to the distributed ledger network, the services provided by the trading front-end service provider enable the customer's trade order to be communicated to the other DeFi participants, including the specific DeFi trading protocol called by the coded instructions and the other DeFi participants operating on the settlement layer, to execute the transaction. Indeed, the coded trade order instructions

provided by the trading front-end service provider are analogous to the coded trade order instructions that a securities broker sends to a securities exchange or other trading center in a traditional securities transaction and are essential to carrying out the overall transaction. Accordingly, because these trading front-end services provide essential services that enable their customers to carry out DeFi transactions, the Treasury Department and the IRS have determined that it is also appropriate to treat these services as effectuating services.

Further, the Treasury Department and the IRS understand that trading front-end services are typically offered by a legal entity or individual, which means there is a person within the meaning of section 7701(a)(1) that would be obligated to comply with broker reporting. Additionally, because persons providing trading front-end services generally host websites, these persons provide services that interact directly with customers undertaking DeFi transactions. Indeed, there generally is an agreement between trading front-end service providers and their customers, under which, as part of customary onboarding procedures, customers are treated as having agreed to general terms and conditions. These agreements may be part of the compliance program used by trading front-end service providers to assess the customer's suitability with respect to economic sanctions programs administered and enforced by Treasury Department's Office of Foreign Assets Control (OFAC).[23] As such, a person providing trading front-end services is the DeFi participant that is closest to the customer. In contrast, as discussed in Part III.B. of this Summary of Comments and Explanation of Revisions, some comments argued that DeFi trading applications are not operated by persons within the meaning of section 7701(a) and do not interact directly with the customer undertaking DeFi transactions. Additionally, unlike the potentially immutable code used

[23] *See* OFAC, *Frequently Asked Questions: Questions on Virtual Currency: 560*, available at: https://home.treasury.gov/policy-issues/financial-sanctions/faqs/560 (discussing OFAC compliance obligations for transactions using digital currency).

by DeFi trading applications, the suite of services provided by trading front-end service providers typically utilize software that is mutable. Accordingly, the Treasury Department and the IRS have determined that it is appropriate to treat trading front-end service providers as brokers under section 6045(c)(1)(D) for the following reasons. First, trading front-end service providers are the DeFi participants that have the closest relationship to the customers and therefore are in the best position to obtain customer identification information. Second, trading front-end service providers are legal entities or individuals that can be identified by taxpayers and the IRS. Third, trading front-end service providers typically do not utilize immutable code in providing these services and therefore can make changes to their operations to comply with these regulations. Therefore, with respect to any digital asset sales[24] effected by these brokers that are subject to reporting, these brokers must file Forms 1099-DA, *Digital Asset Proceeds From Broker Transactions*, to report the information required by that form as appropriate and must retain the information for seven years as required to be retained by §1.6045-1(d)(11)(i), such as the transaction ID of the reported transaction and the digital asset address from which the digital asset was transferred in connection with the sale. In addition, the required information must also be made available for inspection upon request by the IRS. For a discussion of the reasons why the Secretary exercised discretion in not treating other DeFi participants, such as persons that operate DeFi trading applications and persons that perform functions on the settlement layer, as brokers under section 6045(c)(1)(D), *see* Parts III.B. and III.C. of this Summary of Comments and Explanation of Revisions.

Several comments argued that the facilitative services definition should not apply to trading front-end service providers (including certain unhosted wallet providers as

[24] Like centralized brokers, however, these trading front-end service providers treated as brokers are not required to report on the transactions identified in Notice 2024-57, 2024-29 I.R.B. 67 (July 15, 2024), for which brokers are not required to make a return under section 6045(a) until further guidance is issued.

discussed in Part III.A.2. of this Summary of Comments and Explanation of Revisions) because the customer must authorize the transaction in the customer's wallet after the wallet receives the coded trade order instructions from the trading front-end service provider and because it is the customer's wallet, not the trading front-end service provider, that sends the coded trade order instructions to the distributed ledger. One comment asserted that trading front-end service providers do not monitor whether a customer deploys the coded trade order instructions received from the trading front-end service provider, just as an encyclopedia does not monitor whether a reader uses information obtained from its pages. Another comment argued that, to be consistent with standards applied by other offices of the Treasury Department, these final regulations must adopt the standard used by the Financial Crimes Enforcement Network (FinCEN) in its guidance relating to virtual currencies. *See* Fin-2019-G001, *Application of FinCEN's Regulations to Certain Business Models Involving Convertible Virtual Currencies*, May 9, 2019 (2019 FinCEN Guidance). Specifically, in the view of this comment, FinCEN's 2019 Guidance looked to whether a user had "total independent control over the value [of digital assets]" in determining whether digital asset businesses providing services to that user are money services businesses subject to AML obligations under the BSA and FinCEN's implementing regulations. *See* 31 CFR chapter X.

The Treasury Department and the IRS considered these comments but do not agree that trading front-end service providers should be excluded from the broker definition for the following reasons. First, although it may be the wallet, and not the trading front-end service provider, that sends the coded trade order instructions to the distributed ledger network, it is the coded trade order instructions generated by the suite of services offered by the trading front-end service provider that ultimately call for the interaction with the DeFi trading protocol's automatically executing contracts and, once the transaction is

selected for validation and included in a block, cause the validator to settle the transaction. These trading front-end services provide an essential communication function notwithstanding that the coded trade order instructions may not be broadcast to the distributed ledger network by the trading front-end service provider.

In addition, although the preamble to TD 10000 looked to the application of the BSA's AML obligations as support for the conclusion that operators of custodial digital asset trading platforms, digital asset hosted wallet providers, and digital asset kiosks have information about their customers, the Treasury Department and the IRS are not required to follow the BSA or the 2019 FinCEN Guidance in determining whether trading front-end service providers should be brokers under section 6045(c)(1)(D). The AML obligations in FinCEN's regulations issued under the BSA apply generally to financial institutions, whereas information reporting under section 6045 applies to persons included in the definition of broker under section 6045(c)(1). Because section 6045 did not condition the definition of broker on such person being a financial institution under the BSA, the extent to which AML obligations apply to trading front-end service providers does not limit the Secretary's ability to treat such persons as brokers under section 6045(c)(1)(D). *Cf*. section 6050I(c)(1)(B) (explicit reference to BSA).

These final regulations are issued under title 26, and this preamble therefore does not address the proper interpretation of FinCEN's total independent control standard in the 2019 FinCEN Guidance. In any event, the Treasury Department and the IRS do not agree that a total independent control standard is the appropriate standard for determining whether a DeFi participant, such as a trading front-end service provider, provides a service that effectuates a transfer of digital assets as required by section 6045(c)(1)(D), or that a user of trading front-end services has sole control over its assets when it uses a trading front-end service. Trading front-end service providers offer a suite of services that include the translation of the customer's trade order input into

coded trade order instructions that ultimately call for the interaction of the customer's digital assets with the DeFi trading application and, once the transaction is selected for validation and included in a block, cause the validator to settle the transaction. For example, these coded trade order instructions specify the number and type of digital assets to be removed from the customer's wallet and the type of digital assets to be deposited into the customer's wallet in exchange. Additionally, the trading front-end services also may include obtaining the customer's permission for the DeFi protocol to remove digital assets out of the customer's wallet and translating that permission into a separate set of instructions that will be broadcast to the distributed ledger for use by the DeFi protocol in future transactions authorized by the customer. Moreover, in some cases, a trading front-end service provider might take control of the customer's digital assets by routing the customer's digital assets to an address controlled by the trading front-end service provider. Accordingly, despite not holding the digital asset customer's private keys, once the customer authorizes or signs the transaction, the services provided by the trading front-end service provider exercise a degree of control over the customer's digital assets involved in transactions.

Numerous comments argued that trading front-end service providers should not be treated as brokers because they are unable to backup withhold from the digital assets disposed by the customer in the transaction or the digital assets received in the transaction because trading front-end service providers do not have custody of the private keys used for accessing a customer's digital assets. Another comment recommended that, if trading front-end service providers are treated as brokers, they should be exempt from any obligation to backup withhold in DeFi transactions. The final regulations do not adopt these comments. Backup withholding is an essential enforcement tool to ensure that complete and accurate information returns can be filed by brokers with respect to payments made to their customers. Accurate taxpayer

identification numbers (TINs) provided by the customers of brokers and other information provided by brokers are critical to matching such information with income reported on a customer's Federal income tax return. Customers that fail to provide their TINs to a broker as requested may be liable for penalties under section 6723 of the Code. A complete exception from backup withholding for DeFi sales of digital assets would increase the likelihood that customers will not provide correct TINs to their brokers. Trading front-end service providers exercise a degree of control over their customer's digital assets once the transaction has been authorized or signed in the customer's unhosted wallet to withhold their fees from the customer's digital assets and can similarly satisfy their obligation to backup withhold from either the digital assets disposed by the customer in the transaction or the digital assets received in the transaction should the customer fail to provide its name, address, and TIN. The Treasury Department and the IRS are aware, however, that not all arrangements between trading front-end service providers and their customers currently provide for backup withholding. The Treasury Department and the IRS intend to publish a notice of proposed rulemaking under §31.3406(h)-2(b) with proposed regulations that would provide trading front-end service providers with greater flexibility to satisfy their backup withholding obligations with respect to these transactions.

One comment argued that the delivery of application-programming interfaces is merely the provision of hardware or software that enables customers to access digital assets, and the legislative history is clear that such activities ought not cause a person to be a broker. The Treasury Department and the IRS agree that persons that provide application-programming interface services, which is another name for trading front-end services, write the software code that translates the details of the customer's trade order into coded trade order instructions. The Treasury Department and the IRS do not agree that the definition of broker should turn on the technological nature of the services

provided. Instead, the definition should turn on what those services do. Because trading front-end service providers provide services that their customers need in order to engage in DeFi transactions and that are designed specifically for that purpose, that is, by offering a menu of transactions for a customer to choose from and translating the details of the customer's trade order into coded trade order instructions that are used to communicate with other DeFi participants in order to engage in DeFi transactions, it is appropriate to treat these services as effectuating transfers of digital assets under section 6045(c)(1)(D).

Several comments argued that because some digital asset users can themselves write the software code that is included in the coded trade order instructions, trading front-end service providers that provide this software coding service should not be treated as brokers. The final regulations do not adopt this comment because trading front-end service providers offer a suite of services to customers that enable them to engage in DeFi transactions. Moreover, that some sophisticated digital assets users are able to interact with DeFi trading protocols without the services provided by trading front-end service providers should not affect the obligation of trading front-end service providers to report on the transactions of customers that do utilize their services. Additionally, as discussed in Part III.B. of this Summary of Comments and Explanation of Revisions, the IRS intends to evaluate the information reported by trading front-end service providers and the extent to which changes in the industry enable retail digital asset users to use DeFi trading applications without using trading front-end services.

In sum, for all these reasons, the Treasury Department and the IRS have concluded that trading front-end services that enable customers to interact with DeFi trading applications should be treated as effectuating services for purposes of the digital asset middleman rule. Accordingly, final §1.6045-1(a)(21) defines a digital asset middleman as any person who is responsible for providing an effectuating service with

respect to a sale of digital assets. Final §1.6045-1(a)(21)(i) defines an effectuating service as any trading front-end service where the person providing that service ordinarily would know or be in a position to know the nature of the transaction (as defined in final §1.6045-1(a)(21)(iii)(B) and discussed in Part III.A.3. of this Summary of Comments and Explanation of Revisions) or any other service set forth in §1.6045-1(a)(21)(iii)(B)(*1*) through (*5*) (previously referred to as a facilitative service in TD 10000). The final regulations use the term "trading front-end service" rather than "front-end service" to make it clear that only the front-end services that enable customers to interact with DeFi trading applications are included in the effectuating services definition. Specifically, final §1.6045-1(a)(21)(iii)(A)(*1*) limits the definition of a trading front-end service to a service that, with respect to a sale of digital assets, receives a person's order to sell and processes that order for execution by providing user interface services, including graphic and voice user interface services, that are designed to: (i) enable such person to input order details with respect to transactions to be carried out or settled on a distributed ledger or similar technology; and (ii) transmit those order details so that the transaction can be carried out or settled on a distributed ledger or similar technology, including by transmitting the order details to the person's wallet in such form that, if authorized or signed by the person, causes the order details to be transmitted to a distributed ledger network for interaction with a digital asset trading protocol. The Treasury Department and the IRS are aware that technology evolves rapidly. Accordingly, this definition is intended to apply broadly to any front-end service that enables customers to input their order details for interaction with a digital asset trading protocol regardless of the order of the steps necessary to carry out that transaction on the distributed ledger network. It is also intended that this definition will apply to any front-end service that enables customers to interact with aggregation protocols as well as digital asset trading protocols.

Additionally, final §1.6045-1(a)(21)(iii)(A)(*2*) provides additional rules for determining whether services are trading front-end services. First, services are defined as trading front-end services without regard to whether the digital assets received upon execution of the transaction at a digital asset address in the wallet controlled by the person using the trading front-end services to dispose of digital assets (first person) or at a digital asset address in a wallet controlled by a second person, including the provider of the front-end services itself. Thus, for example, if a first person uses services that otherwise meet the definition of trading front-end services to exchange digital asset A for digital asset B and the order details include an instruction to deliver digital asset B to a digital asset address in a wallet controlled or owned by a second person, for example, as a payment, the services provided by the front-end service provider will be treated as trading front-end services.

Final §1.6045-1(a)(21)(iii)(A)(*2*) also provides that the transmission of order details to a distributed ledger network for interaction with a digital asset trading protocol includes the direct or indirect transmission to a distributed ledger network of order details that call upon or otherwise invoke the functions of automatically executing contracts that comprise a digital asset trading protocol. Accordingly, the addition of intermediate steps before the digital asset customer's transaction can be broadcast to a distributed ledger network or before the transaction can otherwise cause the interaction with a digital asset trading protocol, whether for business purposes or in an attempt to avoid meeting the trading front-end services definition, will not prevent the services provided by the trading front-end service provider from being treated as trading front-end services. Thus, for example, the transmittal of a customer's order details for interaction with a DeFi aggregator application before interaction with a specific DeFi trading protocol that offers the most favorable transaction terms is an indirect transmission to a distributed ledger network for interaction with a digital asset trading

protocol described in final §1.6045-1(a)(21)(iii)(A)(*1*)(*ii*). This rule would not, however, treat basic speech-to-text interface services that merely translate customer's voice commanded trade orders to written text orders as trading front-end services because basic text-to-speech interface services do not invoke the functions of the DeFi protocol as required by final §1.6045-1(a)(21)(iii)(A)(*1*)(*ii*). Instead, the translated speech-to-text trade order would be sent to a trading front-end service provider that would, in turn, convert that written trade order into coded trade order instructions.

In addition, final §1.6045-1(a)(21)(iii)(C) provides exceptions for certain wallet services and validation services, which exceptions are discussed in Parts III.A.2. and III.C. of this Summary of Comments and Explanation of Revisions. Additionally, final §1.6045-1(a)(21)(iii)(D) defines a digital asset trading protocol as a distributed ledger application consisting of computer software, including automatically executing contracts, that exchange one digital asset for another digital asset pursuant to instructions from a user.

One comment requested guidance regarding whether persons that offer front-end services for users to provide liquidity to liquidity pools or users to stake their assets through staking pools that issue receipts or tokens in exchange for the users' digital assets would be treated as brokers under the broker definition. Although the definition of trading front-end services under these final regulations could apply to front-end services that enable users to contribute their digital assets to liquidity pools and to staking pools in exchange for receipts or tokens, brokers are not required to make returns on these transactions under section 6045 until a determination has been made that these transactions are subject to such reporting. *See* Sections 3.03 and 3.04 of Notice 2024-57, 2024-29 I.R.B. 67 (July 15, 2024). The Treasury Department and the IRS anticipate that any termination to the no-reporting relief in Notice 2024-57 for such transactions will take into account that the termination may cause persons not currently required to

report to start doing so and therefore such persons would need some time to build or buy systems to comply with reporting. Finally, in response to the comment requesting clarification as to whether providing staking as a service could cause the provider to be treated as a broker, to the extent that such services do not give rise to the sale of a digital asset, the provision of those services would not cause the provider to be treated as a broker.

2. Unhosted Wallet Services

Proposed §1.6045-1(a)(21)(iii)(A) included two sentences in the proposed definition of facilitative services that addressed the extent to which unhosted wallet services were included in the definition. The first sentence would have specifically excluded from the definition of facilitative services 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 second sentence illustrated the limits of this proposed exclusion by stating that software 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. Proposed §1.6045-1(b)(23) (*Example 23*) illustrated the wallet exclusion rule by describing a wallet that neither provides “access” nor “connection services” to a digital asset trading platform, and proposed §1.6045-1(b)(22) (*Example 22*) illustrated the limits of the wallet exclusion rule by describing a wallet that provides “access” to a digital asset trading platform.

One comment argued that the wallet exclusion rule’s application only to wallets the “sole function” of which is to permit persons to control private keys was too narrow because the purpose of wallet software is to allow users to interact with other

blockchain addresses (including smart contracts). The Treasury Department and the IRS do not agree that this exclusion is too narrow. The rationale behind the wallet exclusion was to exclude ancillary parties who cannot obtain information about sales of digital assets. Senator Warner's statements made during the colloquy make it clear that he intended this wallet exclusion to be limited to providers of those wallets for which the only function is to permit persons to control private keys which are used for accessing digital assets on a distributed ledger. 167 Cong. Rec. S6095-6 (daily ed. August 9, 2021). Senator Warner's expressed intent to provide only a limited exclusion for wallet providers is made even more clear when he said later in the colloquy, "[o]f course, if these [wallet providers] . . . provide additional services for consideration that would qualify as brokerage, the rules would apply to them as any other broker." 167 Cong. Rec. S6096 (daily ed. August 9, 2021).

Many comments argued for a complete exclusion from the facilitative services definition for wallet services because, the comments stated, wallet providers and wallet developers typically do not have the information necessary to know the nature of transactions processed nor are they generally able to obtain that information. One comment stated that once the private key is exported, the wallet provider may not even be aware that a transaction happened if the transaction originates with a third-party trading front-end service provider, even though the digital assets disposed of in the transaction are removed from the user's wallet and the digital assets received in the transaction are received in the user's wallet. Another comment stated that unhosted wallet providers may be able to see the digital assets leaving a wallet, but they cannot know the underlying details of the transaction. One comment stated that unhosted wallet providers do not typically know the functionality of a given protocol that a wallet user interacts with using the user's wallet.

As discussed in Part I.B. of this Summary of Comments and Explanation of Revisions, providers of unhosted wallets often provide customers with an assortment of services. Because the rationale behind the wallet exclusion is to exclude ancillary parties who cannot obtain information about sales of digital assets, it is important to examine each of these services to determine if they enable the person providing the wallet services to obtain information about customers' sales of digital assets contained in the wallet. Services provided by the wallet for key storage and transaction authorization are performed in every transaction undertaken with digital assets in the customer's wallet. These services, however, do not provide any information to the person providing the wallet services regarding the underlying nature of the transaction. Services enabling customers to transfer native and non-native digital assets on the distributed ledger similarly do not provide any information to the person providing the wallet services regarding the underlying nature of the transaction. Additionally, the connection that enables a customer to go to a third-party trading front-end service provider for trading front-end services also does not provide the person providing the wallet services with information with respect to the transaction because the coded trade order instructions in that case are created by the third-party trading front-end service provider. Thus, despite the transaction being sent to the customer's wallet for authorization or signature before it is then transmitted by the wallet to the distributed ledger for interaction with the DeFi trading application, the person providing the wallet services does not have visibility into the coded trade order instructions if the instructions are created by a third-party trading front-end service provider. Accordingly, the Treasury Department and the IRS have determined that it is appropriate to treat all these basic wallet services as excluded from the definition of effectuating services under the final regulation.

In contrast, when the person providing the wallet services also provides trading front-end services for a transaction, this wallet provider creates the coded trade order instructions that includes the specifics of the customer's trade order. In that circumstance, the person providing these enhanced wallet services has the information about the underlying sale. Additionally, these persons also interact directly with their customers and, as such, can obtain the customer's identity. Accordingly, it is appropriate in these cases to treat these enhanced wallet trading front-end services as effectuating services under the final regulation and a person providing these enhanced wallet services as a digital asset middleman.

Several comments requested guidance regarding the extent to which a developer of wallet software that provides a service that is considered to be a "service effectuating" transfers should be treated as a provider of that service. The extent to which a software developer would be treated as the provider of the software's services is a question of fact that depends on how the software sale or licensing transaction is structured and the activities provided by the software developer thereafter. For example, if a developer licenses or sells the developed software to a third party, who thereafter uses the software without any continuing involvement by the software developer to provide wallet services to customers, the software developer would not be the provider of the wallet services. In contrast, if the software developer licenses the wallet services directly to customers, the developer would be the provider of the wallet services. The Treasury Department and the IRS disagree with the comment in so far as it can be read to suggest that the final regulations should incorporate additional guidance regarding each potential factual scenario.

One comment stated that persons providing unhosted wallet services do not know the identities of their customers taking part in the transaction. Another comment stated that these persons may have difficulty determining who is the beneficial owner of

the digital assets held within the wallet, such as when more than one customer knows the private key or when one person opens an account on behalf of another person. The Treasury Department and the IRS do not agree that persons providing wallet services are not able to obtain the identities of their customers. On the contrary, a person providing wallet services is the DeFi participant in the best position to obtain that information because there generally is an agreement between the person providing wallet services and the customer under which, as part of customary onboarding procedures, such customers are treated as having agreed to general terms and conditions. Those terms and conditions can address the need to obtain customer identification information. Although, as suggested by the comments, it may be difficult for the person providing wallet services to be certain that the person controlling the private keys in the wallet is the beneficial owner of the digital assets held within the wallet, this concern is no different from any other business that transacts with customers electronically.

Many comments stated that, taken together, the wallet exclusion in the proposed regulations would result in treating all providers of wallet software as brokers. Several comments argued that this wallet exclusion was too narrow because all wallet software provides users with “access” to digital asset trading platforms, thus, no wallet provider will qualify for the exclusion. Several comments stated that the wallet exception’s reference to software that provides wallet users with “direct access to trading platforms from the wallet platform” made it difficult to understand how the overall wallet exclusion was intended to apply because “trading platform” and “wallet platform” were not defined in the proposed regulations. One comment argued that the wallet connection services referred to in proposed §1.6045-1(b)(23) (*Example 23*) should not be considered a facilitative service because this software merely permits a wallet user to authorize transactions involving digital assets in the user’s wallet with respect to a transaction

initiated outside of the wallet. Some comments argued that this broad application of the facilitative services definition to persons providing wallet services was inconsistent with the stated intent of the proposed regulations and the legislative history of the amendment to section 6045.

Several comments argued that the wallet services described in the wallet exclusion rule should not be limited to persons “solely” engaged in the business of selling such hardware or licensing such software. These comments argued that even if a person is engaged in other activities that constitute acting as a broker with respect to one transaction, those activities should not affect whether the person is a broker with respect to the wallet services described in the wallet exclusion provided with respect to a second transaction. That is, when a person who is a wallet provider engages in broker activities with respect to the first transaction, this does not affect whether that wallet provider can obtain the information necessary to report the second transaction. Several comments argued that a precise interpretation of the wallet exclusion rule as written would result in treating wallet providers that conduct any other activities (even non-business hobbies) as providing facilitative services and as brokers for all activities. Another comment argued that although a well-advised wallet provider could put exempt activities into different legal entities to achieve a more rational result, it would be more appropriate to modify the rule to remove this restriction. Another comment suggested that this requirement would create a “cliff effect” for wallet providers, whereby a wallet provider that offers one service that falls within the broker definition will be treated as a broker for all transactions undertaken by customers using that provider’s wallet services.

The Treasury Department and the IRS agree that the exclusion for wallet services should not be limited to persons that are “solely” engaged in the business of selling such hardware or licensing such software. Additionally, the requirement should

not cause wallet providers to be brokers for all transactions undertaken by customers using that provider's wallet services if the provider offers one service that falls within the broker definition. For that reason, final §1.6045-1(a)(21)(iii)(C)(*2*) provides that if a person licenses software or sells hardware that provides unhosted wallet services that include both trading front-end services with respect to some sales of digital assets and other services that are not trading front-end services (or other effectuating services under final §1.6045-1(a)(21)(iii)(B)) with respect to other sales of digital assets, then that person will be treated as providing effectuating services only with respect to the sales of digital assets that are carried out using the trading front-end services provided by the unhosted wallet. Accordingly, persons providing unhosted wallet services must make information returns with respect to customer sales that are undertaken using the wallet's trading front-end services, but those persons are not required to make information returns with respect to customer sales that are undertaken using a third-party front-end service provider's trading front-end services. A wallet provider that does not provide trading front-end services but provides other effectuating services described in final §1.6045-1(a)(21)(iii)(B), however, would nonetheless be required to report on customer sales effected using those other services. Thus, for example, if a person providing unhosted wallet services also operates a digital asset kiosk, that person would be required to report on sales of digital assets undertaken by customers using that kiosk even if the digital assets sold were stored in an unhosted wallet provided by that person. Additionally, §1.6045-1(b)(2)(x) (*Example 2*) has been modified to conform to this final rule.

3. Position to Know

Under proposed §1.6045-1(a)(21)(i), a person performing facilitative services with respect to a sale would meet the definition of a digital asset middleman only if the nature of the services 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.

a. Position to know the identity of the customer

Proposed §1.6045-1(a)(21)(ii)(A) would have treated a person as ordinarily knowing or in a position to know the identity of the party that makes the sale if that person maintains sufficient control or influence over the provided facilitative services so as 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 TIN, in advance of the sale. The proposed rule also would have treated this sufficient control or influence standard as being met if the person providing the facilitative services has the ability to change the fees charged for those services.

Several comments recommended that the final regulations retain only the ordinarily would know standard as applied to knowing the identity of the customer. Other comments stated that the position to know standard has no reasonable limitation because virtually any provider could theoretically request customer information or modify the terms of its arrangement or fee structure. Several comments criticized the new standard because it does not use an objective test but rather an "ability" standard which is not based on the DeFi participant's business model but instead is based on hypothetical circumstances. One comment asserted that persons that provide wallet services and application-programming interface services do not meet the position to know standard with respect to a customer's identity because, the comment stated, these providers have no information on the customer. In contrast, several comments stated that providers of user interface services have sufficient control or influence to add the services necessary to comply with the position to know standard and the proposed broker reporting requirements. Indeed, one comment stated that these interfaces can be

modified and customized to comply with regulatory requirements and are already being modified by some market participants to permit AML/KYC compliance.

As discussed in Part III.A.1. of this Summary of Comments and Explanation of Revisions, persons that provide trading front-end services work directly with customers to translate their trade order details into coded trade order instructions for later use. These services are provided pursuant to general terms and conditions that the customers agree to as part of customary onboarding procedures. Accordingly, trading front-end services can update these general terms and conditions as necessary to learn the identity of their customers. Given that trading front-end service providers have access to their customers and, therefore, can query them about their identity, the Treasury Department and the IRS have determined that it is not necessary in the final regulations to include the position to know standard as applied to the identity of the party that makes the sale. It should be noted that there is currently no knowledge standard for any other brokers regarding the identity of the customer because these rules only treat persons that have access to customers as brokers.

b. Position to know the nature of the transaction

Proposed §1.6045-1(a)(21)(ii)(B) would have treated a person as ordinarily knowing or 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. The proposed rule also would have treated this sufficient control or influence standard as being met if the person providing the facilitative services has the ability to change the fees charged for those services.

One comment asserted that persons that provide application-programming interface services do not meet the position to know standard with respect to the nature of the transaction because these providers have no information on whether the underlying transaction actually took place. Another comment agreed with the proposed position to know standard's reference to sufficient control or influence because it is consistent with the FATF standard, which provides that creators, owners, and operators or some other persons who "maintain control or sufficient influence" in the DeFi arrangements may fall under the FATF definition of a VASP where they are providing or actively facilitating VASP services. 2021 FATF Guidance at ¶67, p. 27. Several comments stated that trading front-end service providers do not have visibility into the nature of the transaction because they do not monitor whether a customer deploys, through the customer's wallet, the coded trade order instructions that they provided. One comment questioned whether a person meets this standard if the person needs to implement technological changes to be in a position to know the nature of the transaction. Several comments requested that the final regulations eliminate the position to know standard and instead only apply the ordinarily would know standard because the position to know standard would force trading front-end service providers to modify their services to comply with the final regulations. One comment explained that although some trading front-end service providers might receive contingent trade-based fees, others receive non-contingent payments for their services. For example, this comment stated that some trading front-end services provided by blockchain explorers provide services that require considerable sophistication for customers to use and, as a result, receive their compensation from sources other than these customers, such as advertising revenue, donations, or sales of blockchain data. Trading front-end service providers might alternatively receive non-contingent periodic payments under a services agreement with a DeFi governance organization, such as a foundation or

decentralized autonomous organization (DAO). This comment stated that, in the case of a services agreement with a DeFi governance organization, a trading front-end service provider might collect data on protocol use (such as, the number of transactions and average transaction size) in setting its periodic fees. The comment argued that the reviewed data on the protocol is anonymized by the blockchain technology and not specific enough to the transactions undertaken pursuant to the front-end's services to provide definitive information about whether these transactions were authorized or signed by the customer and then settled on the distributed ledger. Finally, regarding the proposed rule's reference to a person's ability to change its fees in determining whether a person has sufficient control or influence over its services, one comment requested that final regulations provide more guidance regarding what is meant by fees charged.

The Treasury Department and the IRS do not agree that trading front-end service providers do not have the ability to know if a transaction for which they provided coded trade order instructions was ultimately executed and settled on the distributed ledger. As stated by the referenced comment, trading front-end service providers may receive contingent, trade-based fees as consideration for their services. To ensure that these fees are paid, trading front-end service providers include in the coded trade order instructions a direction for the requisite fee (whether withheld from the traded-away digital assets or the traded-for digital assets) to be sent to a wallet address owned by the trading front-end service provider. Because this fee will not be paid unless the customer authorizes the transaction in the customer's wallet and the transaction is settled on the distributed ledger, the receipt of these fees provides the trading front-end service provider with the information necessary to know that the transaction took place. Trading front-end service providers that receive non-contingent fees for their services also have the ability to determine whether a transaction created through their trading front-end services was carried out. For example, these providers could include in the

coded trade order instructions a direction to notify the trading front-end service provider when the transaction is settled on the distributed ledger similar to the way the sender of an email can receive a read receipt. Indeed, these providers inherently have more information about the transaction than other persons searching the blockchain, so they are in a better position to obtain relevant information from the blockchain. Although these final regulations may require trading front-end service providers receiving non-contingent consideration to make changes in the coded instructions solely for the purpose of complying with these broker reporting rules, this is not different from any other broker that makes changes in their operations to comply with these broker reporting rules. Accordingly, regardless of the structure of the trading front-end service provider's compensation, trading front-end service providers maintain control or sufficient influence over the suite of services that they offer (including the coded trade order instructions) 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.

Although trading front-end service providers should always be treated as maintaining control or sufficient influence over the suite of services that they offer (including the coded trade order instructions) to meet the position to know standard, the final regulations nevertheless have retained a modified version of the proposed position to know standard to ensure that other front-end service providers that might inadvertently be treated as providing trading front-end services under final §1.6045-1(a)(21)(iii)(A) will not be treated as providing an effectuating service under this definition. Accordingly, pursuant to final §1.6045-1(a)(21)(ii), a person providing a trading front-end service 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 if that person maintains control or sufficient influence over the trading front-end services 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 sufficient control or influence language used in the proposed regulations is modified to control or sufficient influence to draw from the language used in the 2021 FATF guidance. *See* 2021 FATF Guidance at ¶67, p. 27.

Final §1.6045-1(a)(21)(ii) also adds three examples of when a person would meet this control or sufficient influence standard. These examples are not intended to be the exclusive examples that would meet this standard. First, the section provides that a person providing trading front-end services will be considered to maintain control or sufficient influence over such services if that person has the ability to amend, update, or otherwise substantively affect the terms under which the services are provided or the manner in which the order is processed. Second, similar to the proposed regulations' reference to a person's ability to change their fees in determining whether a person has sufficient control or influence over its services, final §1.6045-1(a)(21)(ii) provides that a person that has the ability to collect the fees charged for the trading front-end services from the transaction flow (that is, from the digital assets disposed or the digital assets received in the trade order) would be treated as a person that maintains control or sufficient influence over the trading front-end services provided. This result would apply whether or not the person providing trading front-end services actually collects fees in this manner for its services. Third, final §1.6045-1(a)(21)(ii) provides that a person providing trading front-end services will be considered to maintain control or sufficient influence over such services if that person has the ability, in connection with processing the order, to add to the order a sequence of instructions to query the distributed ledger to determine if the processed order is, in fact, executed or to use another method of confirmation based on information known to that person as a result of providing the trading front-end services. In contrast, a front-end service provider that provides services that enable a website to be accessed on a computer or mobile device but does

not translate the customer's trade order into coded trade order instructions that can be sent to the customer's wallet for authorization would not be considered maintaining sufficient control or influence over the services provided to know the nature of the transaction. Finally, to ensure that trading front-end service providers do not take steps to artificially avoid meeting the position to know standard, final §1.6045-1(a)(21)(ii) provides that, except as provided by the Secretary, a contractual or other restriction not required by law that limits the ability of the person providing trading front-end services to amend, update, or otherwise substantively affect the terms under which the services are provided or the manner in which the order is processed will be disregarded for purposes of determining if a person meets the position to know standard. Thus, trading front-end service providers cannot contract with their customers or with operators of digital asset trading protocols to limit their coding ability to avoid falling within the effectuating services definition.

4. Other Policy Considerations

Several comments raised policy considerations in opposing the application of the digital asset middleman rules to DeFi participants. Some of these comments focused specifically on front-end service providers while others focused on DeFi trading applications or more generally on any DeFi participant that ultimately could be made subject to these rules. Several comments noted that because DeFi participants do not have custody of the digital asset user's private keys, they are not currently subject to any comprehensive regulatory oversight, such as rules requiring the implementation of cyber-security programs, business continuity or disaster recovery programs, or comprehensive insurance policies. One comment suggested that not being required to turn over personally identifiable information (PII), including their names, addresses, and TINs, is a key reason why digital asset users engage with DeFi tools and that adding this requirement would deter these users from interacting with DeFi trading applications.

One comment argued that developers of DeFi systems should not be treated as brokers because they face much steeper difficulties in setting up information collection and reporting regimes because they have historically focused on technology development rather than financial services.

The Treasury Department and the IRS do not agree that DeFi participants should be excluded from the information reporting rules under section 6045 because of a lack of financial services experience or because of a purported lack of comprehensive regulatory oversight. Persons with technology expertise that operate trades or businesses relating to financial services should comply with the same rules as any other person operating financial services businesses. Regarding the regulatory oversight comments, these final regulations concern Federal tax laws under the Internal Revenue Code only. The purported absence of regulatory oversight under any other legal regime that is outside the scope of these regulations does not govern the implementation of a provision under title 26. Therefore, the Treasury Department and the IRS are not bound to use those regimes as models in determining whether DeFi participants should be required to comply with an entirely separate set of information reporting rules under section 6045.

Several comments argued that the application of the final regulations to DeFi participants would jeopardize the security of millions of Americans' personal data because DeFi participants are too small and undercapitalized to be able to store PII safely. The Treasury Department and the IRS did not adopt this comment for the final regulations because traditional brokers, including smaller brokers, have operated for many years and have implemented their own security policies and protocols.

One comment stated that many DeFi participants are run by anonymous providers, which further increases the risk to customer PII. Another comment warned that if front-end service providers are treated as brokers under the final regulations,

well-meaning front-end service providers and their customers are likely to fall victim to security breaches. This comment predicted the proliferation of “spoof” front-end service providers set up by nefarious actors to harvest the personal data of digital asset users. The Treasury Department and the IRS do not agree that these supposed risks justify not applying the information reporting rules under section 6045 to the DeFi industry. Information reporting is essential to the integrity of the tax system. The argument offered by these comments could be applied to every industry required to file information returns. The fact that nefarious actors could “spoof” such persons or otherwise compromise customer PII systems is not a reason to entirely abandon a reporting regime that is essential to ensuring that the income (and resulting income tax) from these transactions are reported by taxpayers. Like other businesses that are obligated to collect PII and file information returns with the IRS, trading front-end service providers can build their own technologically innovative data collection and storage systems or they can contract with reliable third-party vendors with expertise in securing confidential data to do the same on their behalf.

One comment touted the policy benefits brought by the DeFi industry, including reduced dependence on traditional intermediaries, increased financial inclusion, stimulation of capital formation, and democratization of financial services for traditionally oppressed Americans. Another comment stated that the proposed rules reflect an anti-technology bias that would discourage the adoption of these innovative privacy-preserving peer-to-peer payment technologies and jeopardize America’s competitiveness with foreign nations. Another comment suggested the application of the proposed reporting rules to DeFi was financial discrimination. One comment suggested that the recent collapse of digital asset custodial exchanges, such as FTX, supports not applying the reporting regulations to DeFi participants, such as unhosted wallets.

The Treasury Department and the IRS do not agree that these final regulations reflect a bias against the DeFi industry or that these regulations will discourage the adoption of this technology by law-abiding customers. The information reporting rules under section 6045 have applied in some form to brokers in the securities industry for over 40 years. As Senator Portman's statements made in the colloquy make clear, the digital asset reporting provisions were "designed to bring more clarity and legitimacy to the cryptocurrency industry by more closely aligning the reporting requirements with those of more traditional financial services, and . . . in doing so will help provide more certainty for people looking to invest in digital assets." 167 Cong. Rec. S6096 (daily ed. August 9, 2021). Beginning for sale transactions on or after January 1, 2025, the regulations promulgated in TD 10000 will also apply to brokers acting as agents or counterparties in their customer's digital asset transactions. The application of these final regulations to the DeFi industry merely treats this industry like these other industries and thereby provides a benefit to the overall industry and to people investing in digital assets. Moreover, in addition to closing or significantly reducing the income tax gap from unreported income, one goal behind information reporting by brokers is to remind taxpayers who engage in DeFi transactions that these transactions are taxable and need to be reported on their Federal income tax returns. Therefore, these rules will also reduce the number of inadvertent errors or intentional misstatements shown on these taxpayers' Federal income tax returns. Accordingly, these final regulations will result in trading front-end service providers being able to provide to their customers the same useful information regarding gross proceeds as custodial brokers will provide because of the application of TD 10000. Finally, these final regulations concern Federal tax laws under the Internal Revenue Code only. The potential policy benefits brought by the DeFi industry raised by these comments are outside the purview of title 26.

Several comments argued that the final regulations should not apply to DeFi participants because these participants cannot report on the customer's cost basis. One comment argued that the onus of reporting tax information in DeFi transactions should fall upon the customers of DeFi services, not DeFi participants providing those services. Other comments argued that the information reporting rules should not apply to DeFi transactions because these transactions are not so-called "off-ramp transactions" that convert the owner's overall digital asset investment into a non-digital asset investment. The Treasury Department and the IRS do not adopt these comments. An exchange of one type of digital asset for another type of digital asset may be a taxable transaction despite it not being an off-ramp transaction. *See* Notice 2014-21, modified by Notice 2023-34, 2023-19 I.R.B. 837 (May 8, 2023). In addition, notwithstanding that DeFi participants generally do not provide custodial services for their customers and thus would not be required to report on the customer's cost basis in a sale transaction, this does not lessen the importance of information reporting for gross proceeds. Clear information reporting rules that require reporting of gross proceeds for taxpayers who engage in digital asset transactions will help the IRS identify taxpayers who have engaged in these transactions, and thereby help to reduce the overall tax gap.

Several comments recommended that the final regulations take a more innovative approach to broker reporting. For example, one comment recommended that the final regulations create a third-party reporting person regime, partially modeled after existing regimes to streamline information reporting and withholding in the cross-border payment and employment contexts, with which DeFi trading applications and trading front-end service providers could contract to store customer PII and to file required information returns. One comment stated that it is possible to innovate and build AML compliant DeFi platforms. Another comment recommended the use of new types of digital asset tokens, called tax attestation tokens, that could support DeFi brokers in

reporting the information required under section 6045. The final regulations do not prescribe the tools that brokers must use in complying with the reporting requirements under section 6045. The Treasury Department and the IRS welcome input from the DeFi industry regarding regulatory reform or market developments that could facilitate innovative approaches to reporting information required under section 6045.

B. DeFi application activities

Proposed §1.6045-1(a)(21)(iii)(A) would have included in the definition of facilitative services any service that provides a party in the sale with an automated market maker system, order matching services, or market making functions.

Many comments argued that the definition of facilitative services should not apply to persons operating DeFi trading applications, for a variety of different reasons. One comment stated that DeFi trading applications operate using immutable automatically executing software that cannot be changed to accommodate broker reporting. Another comment similarly stated that DeFi trading applications that are operated by DAOs cannot be altered because although these DAOs may allow votes by their governance token holders on smart contracts involving predetermined fee tiers and other predetermined matters, they do not allow votes on the overhaul of the entire application to build in the systems required for information reporting and backup withholding. In contrast, another comment stated that ownership of governance tokens is often concentrated among a small group of investors—perhaps even a majority held by a single investor—that can exercise complete control over the development of the protocol. Several comments stated that existing DeFi trading applications, which do not provide for information reporting, cannot start reporting or be shut down to avoid operating without complying with section 6045 requirements because the existing smart contracts cannot be modified. One comment stated that some of DeFi trading applications generally do not have operators that are persons within the meaning of

section 7701(a)(1) as support for the assertion that they could not be expecting to file and furnish information returns. One comment argued that DAO governance token holders and other operators of DeFi trading applications should not be brokers because they do not have access to DeFi customers and do not have the ability to maintain practical control over customers' transactions conducted using the DAO or DeFi trading applications. Another comment requested more guidance with clear, objective percentage standards regarding whether governance token holders have control over a DAO, such as those provided in other areas of the tax law. *See e.g.*, sections 957(a) (controlled foreign corporation); 267(f) (controlled group); 304(c) (control). One comment argued that DeFi trading applications would not be in a position to know the customer's identity if the transaction made use of "zero-knowledge proof" technology. Another comment asserted that there is no privity of contract between DeFi trading applications and digital asset users; therefore, it would be inappropriate to treat those operating these applications as brokers. One comment stated that although persons are involved in writing the underlying software code and deploying that software code within DeFi trading applications, these persons are not involved in running those applications once the code has been deployed. One comment requested that the final regulations permit operators of DeFi protocols (other than those that are fully decentralized) to employ third-party service providers to assist in tracking the information about transactions that take place on the platform to comply with tax reporting. This comment stated that at least one DeFi protocol operator has already supported a tax services provider with tax-ready data and reports for its customers to use in filing their Federal income tax returns.

The Treasury Department and the IRS do not agree with all of the assertions made by these comments. However, as discussed in Parts III. and III.A. of this Summary of Comments and Explanation of Revisions, the only DeFi participants that

are treated as brokers in these final regulations are trading front-end service providers. As explained in Parts III. and III.A. of this Summary of Comments and Explanation of Revisions, trading front-end service providers typically are legal entities or individuals that can more easily be identified by taxpayers and the IRS; the software code they write is not immutable; they are best suited to obtain information from customers; and the services they provide are most analogous to the services provided by conventional securities brokers. Accordingly, the Treasury Department and the IRS have determined that operators of DeFi trading applications should not be treated as providing services that meet the definition of effectuating services under the final regulations, unless these DeFi trading application operators also provide other services that are determined to be included in the definition of effectuating services.

DeFi trading applications provide a function that contributes to carrying out DeFi sale transactions much like the functions provided by established stock exchanges (such as the NYSE or the Nasdaq) contribute to carrying out securities transactions in the securities industry. These services are not analogous to functions performed by securities brokers in the securities industry. It should be noted that DeFi trading applications are unlike stock exchanges in that DeFi trading applications permit any digital asset user to transact directly with the application whereas stock exchanges prohibit retail investors from trading directly on these exchanges and only permit persons that are regulated members of the exchange (that is, broker-dealers) to trade on these exchanges. Although §1.6045-1(b)(2)(ii) excludes stock exchanges from being treated as brokers, that exclusion is conditioned on those stock exchanges providing “facilities in which others effect sales.” This condition—along with the underlying regulatory requirements regarding membership in the exchanges—ensures that other brokers that are closer to the customer can provide the necessary reporting under section 6045. In contrast, operators of DeFi trading applications, including DAOs and their governance

token holders, do not restrict access to the trading platform to regulated parties. The IRS intends to evaluate the information reported by trading front-end service providers and the extent to which changes in the industry enable digital asset users to use DeFi trading applications without using the services provided by trading front-end service providers. If the IRS learns that a significant amount of DeFi trading does not give rise to information reporting, the Treasury Department and the IRS may reconsider the scope of the definition of broker with respect to DeFi transactions.

In specific response to the comments, the Treasury Department and the IRS have concluded that it is not necessary to determine at this time whether and to what extent DeFi trading applications are truly decentralized, the extent to which operators of DeFi trading applications (including governance token holders) can make changes to the underlying smart contracts and protocols to comply with broker reporting or hire third party service providers to do so, or whether operators of DeFi applications may not ever qualify as persons, within the meaning of section 7701(a) because these final regulations have determined that trading front-end service providers should be the only DeFi participants that are treated as the brokers under section 6045(c)(1)(D) and required to file information returns under section 6045 with respect to DeFi sale transactions. For the same reason, it is not necessary for the Treasury Department and the IRS to determine the extent to which a DeFi trading protocol would be in a position to know their customers' identities if the transaction makes use of technology that does not reveal the customer's identity, such as zero-knowledge proofs or similar technology.

One comment argued that the counterparty to a transaction carried out using a DeFi trading application may be a liquidity pool and not the person providing that liquidity (liquidity provider). Another comment asserted that if liquidity providers are treated as engaging directly in the activities of the DeFi trading application, they could be brokers under the proposed regulations even though they would not have any way to

determine the identity of the customer. The Treasury Department and the IRS considered these comments and have concluded that it is also not necessary to determine at this time whether and to what extent liquidity providers are the counterparties in these transactions or can otherwise access information about the customer because these final regulations have determined that trading front-end service providers should be the only DeFi participants that are required to file information returns under section 6045 with respect to DeFi sale transactions.

Several comments argued that non-fungible token (NFT) marketplaces are the same as DeFi trading protocols and other DeFi trading applications. These comments stated that developers of NFT marketplaces are incapable of knowing the transactions that are carried out by customers that use their marketplaces and cannot update their software to require customers to comply with the broker reporting requirements. Because these final regulations have determined that trading front-end service providers should be the only type of DeFi participant that is required to file information returns under section 6045 with respect to DeFi sale transactions under these final regulations, the Treasury Department and the IRS have concluded that it is not necessary to determine at this time whether and to what extent NFT marketplaces operate like DeFi trading protocols. It should be noted, however, that persons that provide customers with trading front-end services to purchase or sell NFTs in exchange for other digital assets do provide effectuating services and are digital asset middlemen and brokers under these final regulations.

One comment raised a concern regarding the extent to which a DAO would be treated as a person that regularly offers to redeem digital assets that it created or issued if it redeems “receipt tokens” issued to help users track how much of a governance token has been placed into a smart contract for voting purposes, which receipt tokens have no value and serve only to allow the user to retrieve its governance tokens. The

Treasury Department and the IRS did not intend for the redemption of receipt tokens used merely to keep track of voting history to be treated as sales subject to reporting under these regulations and will consider future guidance to clarify this intention.

C. Settlement layer activities

Proposed §1.6045-1(a)(21)(iii)(A) would have provided that a facilitative service does not include validating distributed ledger transactions (whether through proof-of-work, proof-of-stake, or any other similar consensus mechanism) without providing other functions or services if provided by a person solely engaged in the business of providing such validating services.

Many of the comments agreed that validation services should be excluded from the broker definition. Applying the DeFi technology stack model discussed in Part I.B. of this Summary of Comments and Explanation of Revisions to the effectuating services definition, the Treasury Department and the IRS continue to maintain that it is appropriate to exclude validation services from the definition of effectuating services. The functions performed by DeFi participants at the settlement layer, such as block building and validation services, which are responsible for settling financial transactions on the distributed ledger, contribute to the execution of digital asset transactions much in the same way as clearing organizations, such as The Depository Trust and Clearing Corporation (DTCC) and its subsidiaries, contribute to the execution of securities transactions on a securities exchange. Like clearing organizations in the securities industry, participants at the settlement layer do not interact with the ultimate customer and, as such, do not generally have access to the information that would enable them to associate the customer's identity with transactions settled by those participants. Indeed, in the securities industry, this lack of proximity to the customer—along with the fact that other participants are closer to the customer—supports not treating clearing organizations as brokers. *See* §1.6045-1(b)(2)(vii). Consistent with this understanding

that participants at the settlement layer do not interact with the ultimate customer, several Senators expressed a concern with treating persons that perform validation services as brokers in the deliberations leading up to the passage of the Infrastructure Act. For example, Senator Portman said during the colloquy, "[w]e want to be sure that miners and stakers and others who play a key role in validating transactions now or in the future . . . will not be subject to the [broker reporting] rules for those activities."). 167 Cong. Rec. S6096 (daily ed. August 9, 2021).

Several comments focused on the "without providing other functions or services" limitation to the carve-out for validation services. One comment argued that when a validator performs other functions or services, it does not enhance a validator's ability to know the identities of the parties whose transactions it validated. Another comment referenced the DeFi technology stack model to argue that the regulations should more clearly exempt all settlement layer service providers from the definition of broker. Numerous other comments provided descriptions of additional functions that they said either were a component of validation services or otherwise should be treated similarly to validation services. Specifically, these comments urged the Treasury Department and the IRS to exclude ordering services, block arranging services, block-proposing services, communication node operation services and other similar network services that operate on the settlement layer. One comment suggested that persons that record transactions on secondary networks that are built on top of (or beside) a primary distributed ledger (layer 2 blockchains) using sequencer software should be treated like validators for this purpose. Similarly, another comment pointed out that to facilitate more transactions, some distributed ledgers enable transactions to be aggregated on a layer 2 blockchain before being recorded as a single transaction on the primary distributed ledger. In these cases, this comment asserted that persons that validate transactions on this secondary network should be excluded. Another comment suggested excluding

validators that participate in so-called liquid staking protocols. One comment argued that unhosted wallet providers, DeFi protocols, and price discovery services should be excluded as analogous to validators.

As discussed in Part III.A.1. of this Summary of Comments and Explanation of Revisions, the Treasury Department and the IRS have determined that the only DeFi participant that should be treated in these final regulations as providing effectuating services for purposes of the reporting rules under section 6045 in a sale is the DeFi participant that provides trading front-end services. Accordingly, an exclusion for validation services—which are not trading front-end services—is technically no longer necessary. Nevertheless, given the strong concern expressed by members of Congress and others in the industry that these ancillary services be excluded, the final regulations retain this exclusion for validation services and expand it to also include those services necessary to complete the validation. It is intended that block building as well as the operation of communication nodes would be included in the other services necessary to complete the validation, and thus excluded from the definition of effectuating services. Without expressing any view regarding the extent to which the other services raised by the comments are analogous to these validation services, the Treasury Department and the IRS have determined that it is not appropriate to expand the exclusion from the definition of effectuating services for validation services any further. First, as noted, the exclusion is not necessary now that trading front-end services are the only DeFi services that are treated as effectuating services. As long as these other services do not fit within the definition of trading front-end services, they will not be treated as effectuating services under the final regulations. Second, the list of services that are not trading front-end services is potentially infinite and can change over time. It is not practical or appropriate to draft a list of all the services within the DeFi industry that do not fit within the definition of trading front-end services.

Several comments argued that the proposed carve-out for validation services is too narrow because it would be limited to persons "solely" engaged in the business of providing distributed ledger validation services. These comments argued that the exclusion should remain available even for persons who are engaged in more than one trade or business or providing more than one type of service. Another comment pointed out that, as drafted, the carve-out seemingly would not apply to persons conducting validation services only as a hobby or without a profit motive. One comment recommended that the exclusion instead be based on the functions or services conducted with respect to the transaction. Another comment requested additional examples to clarify the circumstances in which validation services would be considered facilitative services.

The Treasury Department and the IRS agree that the carve-out for validation services should not be limited to persons that are "solely" engaged in the business of performing such services. Rather, the intent of the carve-out was to exclude validators from reporting on sales for which they provide validation services unless those validators also performed other services with respect to those same sales that would be treated as effectuating services. Accordingly, final §1.6045-1(a)(21)(iii)(C)(*1*) provides that providing distributed ledger transaction validation services (whether through proof-of-work, proof-of-stake, or any other similar consensus mechanism), including those services necessary to complete the validation, are not an effectuating service under final §1.6045-1(a)(21)(i). Additionally, an example is added at final §1.6045-1(b)(24) to illustrate that the exclusion applies only to the validation services provided. It does not apply when validators also perform trading front-end services because those validators must report sales carried out as a result of those trading front-end services. Thus, if a validator, as part of its ordinary course of a trade or business, provides trading front-end services with respect to a sale for a customer and thereafter also validates that sale

(likely without even knowing that validated block included the customer's sale), the validator would be required to report on the sale as a result of providing the trading front-end services notwithstanding that the validator also validated the sale.

IV. Multiple Broker Rule

The proposed regulations did not extend the multiple broker rule under §1.6045-1(c)(3)(iii) of the pre-TD 10000 regulations to digital asset brokers, but instead asked for comments regarding the best way to apply a multiple broker rule. Comments overwhelmingly requested that the final regulations implement a multiple broker rule applicable to digital asset brokers to avoid burdensome and confusing duplicative reporting. In response, TD 10000 added a multiple broker rule under §1.6045-1(c)(3)(iii)(B) that applies if more than one digital asset broker effects the same sale. Under that rule, the broker crediting the gross proceeds to the customer's wallet address or account (the crediting broker) must report the transaction to the IRS. The other broker can generally avoid reporting if it obtains proper documentation from the crediting broker that the crediting broker is a U.S. digital asset broker. The preamble to TD 10000 also indicated that the Treasury Department and the IRS are continuing to study the question of how a multiple broker rule would apply to the non-custodial (DeFi) digital asset industry.

Many comments pointed out that a customer engaging in any DeFi transaction may use the services of many DeFi participants, including interface providers, wallet software providers, and DeFi protocols. To the extent the final regulations deem all of these DeFi participants to be brokers, their overlapping reporting obligations would create duplicate reporting and unnecessary compliance costs. Because these final regulations treat only trading front-end service providers as a broker and because only one front-end service provider translates the customer's trade order details into coded trade order instructions, there should generally be only one DeFi participant that is a

broker under section 6045(c)(1)(D) in a DeFi transaction. The Treasury Department and the IRS are not aware of multiple broker fact patterns in which more than two types of brokers could be involved in a DeFi sale. If such a case did exist, however, the existing multiple broker rule in §1.6045-1(c)(3)(iii)(B) would apply to ensure that only one of the two brokers report on the transaction. Further, the Treasury Department and the IRS intend to issue a notice of proposed rulemaking that will propose examples illustrating how the existing multiple broker rule would apply to transactions like this that are effected by both a front-end service provider and a custodial broker to obtain comments from the public regarding the application of the existing multiple broker rule in §1.6045-1(c)(3)(iii)(B) to such transactions.

V. Comments Based on Constitutional Concerns

A. Major questions doctrine

Several comments alleged that the proposed regulations, if finalized, would raise major questions doctrine concerns under *West Virginia v. EPA*, 597 U.S. 697 (2022).[25] One comment alleged that 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 that 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 comment claimed that the proposed regulations, if finalized, would eliminate DeFi transactions and fundamentally transform non-custodial wallet services and that Congress withheld that authority from the Treasury Department and the IRS even though Congress amended section 6045 to allow for broker reporting on digital asset transactions. Another comment claimed that the Treasury Department and the IRS should be especially careful not to encroach on Congress's policymaking power in

[25] The major question doctrine is a canon of construction that bars agencies from resolving questions of "vast economic and political significant" without clear statutory authorization.

light of the ongoing congressional debate about how digital assets should be treated and regulated and the economic importance of the digital asset industry. The comment alleged that amended section 6045 does not provide any clear congressional authorization that could give the IRS the right to dictate important policy decisions about digital assets.

The Treasury Department and the IRS do not agree that these final regulations are prohibited by the major questions doctrine. The major questions doctrine is only implicated when an agency claims an extraordinary grant of regulatory authority based on "modest words," "vague terms," or "subtle devices," and the "history and the breadth" of the agency's asserted power provide a reason to hesitate before concluding that Congress meant to confer such authority. *West Virginia v. EPA*, 597 U.S. at 721 and 723.

Section 80603 of the Infrastructure Act made several changes to the broker reporting provisions under section 6045 to clarify the rules regarding how certain digital asset transactions should be reported by brokers. These clarifications are not mere "modest words," "vague terms," or "subtle devices." Section 6045(c)(1)(D) provides that a broker includes "any person who (for consideration) is responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person." As discussed in Part II. of this Summary of Comments and Explanation of Revisions, this statutory language extends to treating DeFi industry participants as brokers.

Furthermore, these final regulations do not claim or exercise an extraordinary grant of regulatory authority. As discussed in Part III.A.1. of this Summary of Comments and Explanation of Revisions, the only DeFi participant treated as providing effectuating services for purposes of these final regulations is the DeFi participant that provides trading front-end services. These front-end services are analogous to the services

provided by securities brokers in the securities industry, which are already subject to section 6045 broker reporting.

B. Comments based on the First, Fourth, and Fifth Amendments

Multiple comments alleged that the proposed regulations, if finalized, would violate the First, Fourth, and Fifth Amendments to the U.S. Constitution on a variety of asserted bases, some of which apply to DeFi participants. As discussed in the preamble to TD 10000, the final regulations do not violate the First Amendment because they do not compel political or ideological speech by DeFi participants and merely require information reporting for Federal tax compliance purposes, a sufficiently important governmental interest. *See* 89 FR 56520. The final regulations also do not violate the Fourth Amendment as applied to DeFi participants because, as explained in the preamble to TD 10000, the Fourth Amendment's protections extend only to items or places in which a person has a constitutionally protected reasonable expectation of privacy. *See* 89 FR 56520, 56521.

As mentioned in the preamble to TD 10000, some comments stated that the definition of broker, effect, and digital asset middleman are unconstitutionally vague. *See* 89 FR 56521. The Due Process Clause of the Fifth Amendment provides that "no person shall . . . be deprived of life, liberty, or property, without due process of law." This provision has been interpreted to require that statutes, regulations, and agency pronouncements define conduct subject to penalty "with sufficient definiteness that ordinary people can understand what conduct is prohibited." *See Kolender v. Lawson*, 461 U.S. 352, 357 (1983). The relevant test is that a "regulation is impermissibly vague under the Due Process Clause of the Fifth Amendment if it 'fails to provide a person of ordinary intelligence fair notice of what is prohibited, or is so standardless that it authorizes or encourages seriously discriminatory enforcement.'" *United States v.*

Szabo, 760 F.3d 997, 1003 (9th Cir. 2014) (quoting *Holder v. Humanitarian Law Project*, 561 U.S. 1, 18 (2010)).

The final regulations are not unconstitutionally vague. As discussed in Part II. of this Summary of Comments and Explanation of Revisions, the statutory definition of broker is broad enough to include multiple DeFi participants involved in a DeFi transaction. Despite this broad statutory definition of broker, the final regulations are more narrowly tailored so that they apply only to those DeFi participants that provide services analogous to those performed by brokers in the securities industry. Section 1.6045-1(a)(1) defines a 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." Section 1.6045-1(a)(10)(i)(D) added to the definition of effect to act as a digital asset middleman for a party in a sale of digital assets. Digital asset middleman was defined in §1.6045-1(a)(21)(i) as any person who, with respect to a sale of digital assets provides a facilitative service. Proposed §1.6045-1(a)(21)(iii)(A) would have defined a facilitative service as any service that directly or indirectly effectuates a sale of digital assets. Rather than maintain this broad definition of a facilitative service, final §1.6045-1(a)(21)(iii)(A) defines an effectuating service as a trading front-end service and other narrowly identified effectuating services. Final §1.6045-1(a)(21)(iii)(A)(*1*) defines these trading front-end services with sufficient specificity to avoid due process concerns.

VI. Applicability Dates and Penalty Relief

One comment, pointing to the safe harbor rules generally applicable under section 6721(c)(3) of the Code to *de minimis* transactions, requested penalty relief for persons who unknowingly and unintentionally engage in activities that result in such persons being brokers under the final regulations if such persons remain below a *de minimis* threshold for the number and/or value of transactions should have this relief effected during a start-up or transitional period. Alternatively, or potentially in addition to

this request for a temporary *de minimis* threshold, this comment requested a permanently applicable "grace period" for any industry participant that has unintentionally violated the information reporting requirements under section 6045 after qualifying as a broker during which grace period such person can either come into compliance or adjust its activities so as to avoid qualifying as a broker, without immediately facing penalties. The IRS does not agree that it is appropriate to provide penalty relief for start-up brokers whose services effectuate transactions during a grace period or that fall below a *de minimis* threshold beyond that relief already in place under section 6721(c)(3) for *de minimis* reporting errors or under section 6724 of the Code for errors that are due to reasonable cause because this type of relief is not generally provided for other information reporting provisions. *See e.g.*, section 6041 (applicable to all persons engaged in a trade or business making payments in the course of such trade or business). Persons providing trading front-end services to customers as a trade or business are expected to investigate all the legal requirements of conducting that trade or business. Relief for those that do not properly investigate beyond the existing *de minimis* rules or the reasonable cause penalty relief under section 6724 is, therefore, not appropriate.

The Treasury Department and the IRS received and considered many comments about the applicability dates contained in the proposed regulations. Multiple comments requested additional time beyond the proposed applicability date for gross proceeds reporting by DeFi participants on transactions occurring on or after January 1, 2025, so that newly-reclassified brokers could build compliance programs properly. The comments generally asked for more time, ranging from one to five years after publication of the final rules, to prepare for reporting transactions, with the most common suggestion being an applicability date between 18 and 24 months after publication of the final regulations. Several comments suggested that broker reporting

begin at the same time as CARF reporting, either for all brokers or for non-U.S. brokers. Multiple comments requested that the final regulations become applicable in stages, with many suggesting that custodial industry participants should be required to report during the first stage and that DeFi participants should begin reporting a year or more later. Comments generally pointed to the time needed to build information reporting systems and to adequately document customers to support their recommendation of later applicability dates. They also cited concerns about fulfilling backup withholding requirements and adapting to filing a new information return, the Form 1099-DA, *Digital Asset Proceeds From Broker Transactions*, and about the IRS's ability to receive and process a large number of new forms.

The Treasury Department and the IRS previously determined that a phased-in or staged approach to broker reporting is appropriate. Accordingly, TD 10000 requires gross proceeds reporting generally for sales occurring on or after January 1, 2025, for custodial industry participants (and certain brokers acting as counterparties in a transaction). Additionally, TD 10000 requires basis reporting for sales occurring on or after January 1, 2026, but only with respect to digital assets the customer acquired from, and held with, the same broker on or after January 1, 2026. The preamble to TD 10000 stated that the Treasury Department and the IRS intend to expeditiously issue separate final regulations describing information reporting rules for DeFi industry participants and these rules would be finalized with an appropriate, separate applicability date.

Although the applicability date proposed by the proposed regulations applied to gross proceeds reporting for sales of digital assets effected on or after January 1, 2025, the Treasury Department and the IRS agree that a delay is warranted for trading front-end service providers treated as brokers (DeFi brokers) under these final regulations. First, many of these DeFi brokers may not have systems in place to collect and store

customer identity information or contracts with third-party service providers to do the same. Second, many of these DeFi brokers also may not have systems in place to collect, store, and report customer transaction information or contracts with third-party service providers to do the same. Third, many of these DeFi brokers also do not have backup withholding systems that would enable these brokers to backup withhold and pay the backup withholding tax in cash. Based on these considerations, final §1.6045-1(a)(21) applies to sales of digital assets occurring on or after January 1, 2027.

The IRS intends to work closely with stakeholders to ensure the smooth implementation of the reporting rules, including the mitigation of penalties in the early stages of implementation for all but particularly egregious cases involving intentional disregard of these rules. Accordingly, to promote industry readiness to comply with the backup withholding requirements that will apply to newly required reporting required by these final regulations, Notice 2025-3 is being issued contemporaneously with these final regulations to provide transitional relief from broker reporting penalties and backup withholding under section 3406 on these sales. This Notice, which will be published in the Internal Revenue Bulletin, provides that the effective date for backup withholding is postponed to January 1, 2028, for potential backup withholding obligations imposed under section 3406 for payments required to be reported by DeFi brokers on Forms 1099-DA, *Digital Asset Proceeds From Broker Transactions*, for sale transactions. Additionally, the Notice provides that the IRS will not assert penalties for a DeFi broker's failure to deduct, withhold, and pay any backup withholding tax with respect to calendar year 2028 that is caused by a decrease in the value of received digital assets between the time of the transaction giving rise to the backup withholding liability and the time the broker liquidates 24 percent of the received digital assets, provided the broker undertakes to effect that liquidation immediately after the transaction giving rise to the backup withholding liability. For sale transactions effected in 2028 for customers that

have opened accounts with the broker prior to January 1, 2028, the Notice further provides that backup withholding will not apply with respect to any payee that furnishes a TIN to the broker, whether or not on a Form W-9 in the manner required in §§31.3406(d)-1 through 31.3406(d)-5, provided the broker submits that payee's TIN to the IRS's TIN matching program and receives a response that the TIN furnished by the payee is correct. *See* §601.601(d)(2).

In addition to this specific DeFi industry relief, the backup withholding relief provided in Notice 2024-56, 2024-29 I.R.B. 64 (July 15, 2024), also applies to the DeFi industry. For example, Notice 2024-56 applies to digital asset sales effected by a DeFi broker under these final regulations where the reportable proceeds is a specified NFT. Additionally, the backup withholding relief provided in Notice 2024-56 for PDAP sales effected by a PDAP will also be applicable to PDAP sales effected by a DeFi broker that is also PDAP. This relief for PDAP sales, however, does not apply to the extent the sale is also another type of sale described in §1.6045-1(a)(9)(ii)(A) through (C), such as a sale of digital asset A for digital asset B, because §1.6045-1(a)(9)(ii)(D) provides that a sale that is a PDAP sale and another type of digital asset sale is not treated as a PDAP sale.

Special Analyses

I. Regulatory Planning and Review

Pursuant to the Memorandum of Agreement, Review of Treasury Regulations under Executive Order 12866 (June 9, 2023), tax regulatory actions issued by the IRS are not subject to the requirements of section 6(b) of Executive Order 12866, as amended. Therefore, a regulatory impact assessment is not required.

II. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520) (PRA) generally requires that an agency obtain the approval of the Office of Management and Budget

(OMB) before collecting information from the public, whether such collection of information is mandatory, voluntary, or required to obtain or retain a benefit. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid control number assigned by the Office of Management and Budget.

In general, the collection of information in the regulations is required under section 6045 and the collection of information in these regulations is set forth in §1.6045-1. The IRS intends that the collection of information pursuant to section 6045 and these regulations will be conducted by way of Form 1099-DA. In accordance with the PRA, the reporting burden associated with the collection of information in these final regulations will be reflected in PRA submissions associated with Form 1099-DA (OMB control number pending). On April 22, 2024, the IRS published in the **Federal Register** (89 FR 29433) a Notice and request for comments on the collection of information requirements related to the broker regulations with a 60-day comment period. On October 7, 2024, the IRS published in the **Federal Register** (89 FR 81151) a second Notice and request for comments on the collection of information requirements related to the broker regulations with a 30-day comment period. To the extent there is a change in burden as a result of these final regulations, the change in burden will be reflected in an update to the burden estimate for Form 1099-DA prior to the collection of information required under these regulations.

The proposed regulations contained burden estimates regarding the collection of information with respect to the dispositions of digital assets. For the proposed regulations, the Treasury Department and the IRS estimated that approximately 600 to 9,500 brokers would be impacted by the proposed regulations, which would have applied to all digital asset brokers. The proposed regulations contained an estimate of 13 to 16 million customers that would have transactions subject to the proposed

regulations. The proposed regulations also contained an estimate of the average time to complete the Form 1099-DA for each customer as between 7.5 minutes and 10.5 minutes, with a mid-point of 9 minutes (or 0.15 hours). Taking the midpoints of the ranges for the number of brokers expected to be impacted by the proposed regulations, the number of taxpayers expected to receive one or more Form 1099-DA, and the time to complete the Form 1099-DA (5,050 brokers, 14.5 million recipients, and 9 minutes respectively), the proposed regulations estimated the average broker would incur 425 hours of time burden and $27,000 of monetized burden for the ongoing costs per year. The proposed regulations contained estimates of 2,146,250 total annual burden hours and $136,350,000 in total monetized annual burden.

The proposed regulations estimated start-up costs to be between three to eight times annual costs. Given that the Treasury Department and the IRS expected the per-broker annual estimated burden hours to be 425 hours and $27,000 of estimated monetized burden, the proposed regulations estimated per broker start-up aggregate burden hours to range from 1,275 to 3,400 hours and $81,000 and estimated aggregate monetized burden of $216,000. Using the midpoints, start-up total estimated aggregate burden hours was 11,804,375 and total estimated monetized burden was $749,925,000.

Numerous comments were received on the estimates contained in the proposed regulations. In general, the comments claimed the proposed regulations underestimated the burden hours and monetized burden. The comments that were related to the burden associated with the specific information required to be reported on Form 1099-DA were addressed in the preamble to TD 10000. See 89 FR 56539-56541. In addition, multiple comments said that the estimated number of brokers impacted by the proposed regulations was too low. The comments that did not distinguish between centralized brokers or DeFi brokers under the proposed regulations were addressed in the preamble to TD 10000. Id.

Some of the comments specifically addressed DeFi participants. One comment said the estimated number of overall brokers identified in the proposed regulations was too low because it underestimated the impact on decentralized autonomous organizations, governance token holders, operators of web applications, and other similarly situated potential DeFi participants. As discussed in Part III. of this Summary of Comments and Explanation of Revisions, the Treasury Department and the IRS have determined that it is appropriate to treat DeFi participants that provide trading front-end services as brokers under section 6045. The Treasury Department and the IRS have also determined that it is not appropriate to treat decentralized autonomous organizations, governance token holders, or operators of web applications as brokers subject to the reporting requirements unless they also provide trading front-end services, and only with respect to the sales of digital assets that are carried out using the trading front-end services. Accordingly, this burden analysis does not attempt to include any of the DeFi participants that these final regulations do not treat as brokers.

Numerous comments expressed an overall concern with the reporting burden associated with the proposed regulations but did not specifically address the estimated number of brokers, number of recipients, or time needed to complete the reports. Many of these comments expressed a concern that the reporting requirements in the proposed regulations would reduce the benefits of customers engaging in DeFi transactions. Several comments described the benefits of DeFi, with one comment specifically mentioning that these benefits include best execution, lower fees, faster transaction times, enhanced personal information protection greater privacy, and the avoidance of conflicts of interest. These comments generally claimed that the reporting required by the proposed regulations would place significant costs on DeFi participants thereby reducing the benefits of engaging in DeFi transactions.

Other comments stated that DeFi participants do not currently have systems in place to comply with tax recordkeeping requirements. One comment claimed that the proposed regulations would result in DeFi participants spending more resources requesting, collecting, managing, and securing information than they spend conducting their current businesses. Another comment claimed that it would be economically prohibitive for DeFi participants to build and maintain broker reporting infrastructure systems because the services these DeFi participants provide are typically offered at little cost compared to similar services offered by traditional securities brokers. In addition, this comment claimed that the proposed regulations, if finalized, would require DeFi participants to build infrastructure systems to collect private information on users despite never holding any customer assets.

The Treasury Department and the IRS understand that these final regulations will impose costs on DeFi participants. As discussed in Part III. of this Summary of Comments and Explanation of Revisions, however, the final regulations narrow the scope of DeFi participants that the proposed regulations treated as brokers required to report under section 6045 to those DeFi participants providing trading front-end services. The final regulations treat only trading front-end service providers as brokers (DeFi brokers) under section 6045 for several reasons, including that these DeFi participants have the closest relationship to customers and therefore are in the best position to request, collect, and manage the information, including the personal identification information, required to be reported. Additionally, DeFi participants that provide trading front-end services provide functions that are most analogous to the functions provided by securities brokers. As discussed in Part II.B.A. of this Summary of Comments and Explanation of Revisions, the Treasury Department and the IRS have concluded that the definition of broker should not depend on the specific technology used to effect transfers of digital assets. While certain technologies may allow DeFi

brokers to be more cost-effective in their business operations, their choice to use these technologies should not influence their inclusion in the definition of broker and their requirement to comply with the reporting obligations.

Books or records relating to a collection of information must be retained so long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by section 6103 of the Code.

III. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) (5 U.S.C. chapter 6) requires agencies to "prepare and make available for public comment an initial regulatory flexibility analysis," which will "describe the impact of the proposed rule on small entities." 5 U.S.C. 603(a). Unless an agency determines that a proposal will not have a significant economic impact on a substantial number of small entities, section 603 of the RFA requires the agency to present a final regulatory flexibility analysis (FRFA) of the final regulations. The Treasury Department and the IRS have not conclusively determined whether these final regulations will have a significant economic impact on a substantial number of small entities. This uncertainty is based in part on a lack of sufficient information about the industry and therefore, any determination requires further study. Because there is a possibility of a significant impact on a substantial number of small entities, a FRFA is provided in these final regulations.

While the Treasury Department and the IRS were unable to find information to estimate the number of trading front-end service providers, there is some information that can be used to estimate the number of DeFi trading protocols. For example, one data aggregator states that it tracks more than 5,042 different protocols across 328 blockchains and trading volume for 613 DeFi trading protocols (which it calls DEX).[26]

[26] DeFi Llama, https://defillama.com, (last visited November 27, 2024).

Another data aggregator states that it tracks 852 DeFi trading protocols (which it calls decentralized exchanges).[27] This data aggregator shows which website is used to access each DeFi trading protocol that it tracks and multiple DeFi trading protocols are accessed by the same website. Because information is not available on the number of trading front-end service providers, a conservative estimate of the number of trading front-end service providers can be made using the number of DeFi trading protocols. While this estimate does not reflect that one trading front-end service may provide access to multiple DeFi trading protocols, it also does not reflect unhosted wallet providers that provide trading front-end services which may also provide access to multiple DeFi trading protocols. Accordingly, based on the limited information available, the Treasury Department and the IRS have concluded that approximately 650 to 875 DeFi brokers, with a mid-point of approximately 765 DeFi brokers, will be impacted by these final regulations.

The expected number of impacted issuers of information returns under these final regulations is between 650 and 875 estimated DeFi brokers (mid-point of 765). Small Business Administration regulations provide small business size standards by NAICS Industry. See 13 CFR 121.201. The NAICS includes virtual currency exchange services in the NAICS code for Commodity Contracts Intermediation (52316). According to the Small Business Administration regulations, the maximum annual receipts for a concern and its affiliates to be considered small in this NAICS code is $41.5 million. Based on external reporting on decentralized exchange activity, approximately 10 of the 875 DeFi brokers identified as impacted issuers in the upper bound estimate exceed the $41.5 million threshold. This implies there could be up to 865 impacted small business issuers under the Small Business Administration's small business size standards.

[27] CoinGecko, Top Decentralized Exchanges Ranked by 24H Trading Volume, https://www.coingecko.com/en/exchanges/decentralized, (last visited November 27, 2024).

Pursuant to section 7805(f) of the Code, the notice of proposed rulemaking was submitted to the Chief Counsel of the Office of Advocacy of the Small Business Administration for comment on its impact on small business, and no comments were received.

A. Need for and Objectives of the Rule

Information reporting is essential to the integrity of the Federal tax system. The IRS estimated in its 2019 tax gap analysis that net misreporting as a percent of income for income with little to no third party information reporting is 55 percent. In comparison, misreporting for income with some information reporting, such as capital gains, is 17 percent, and for income with substantial information reporting, such as dividend and interest income, is just five percent.

Prior to TD 10000, many transactions involving digital assets were outside the scope of information reporting rules. Digital assets are treated as property for Federal income tax purposes. The regulations under section 6045 require brokers to file information returns for customers that sell certain types of property providing gross proceeds and, in some cases, adjusted basis. TD 10000 specifies that digital assets are a type of property for which information reporting is required by brokers. However, TD 10000 reserved on the rules for DeFi participants and thus did not include DeFi participants in the definition of broker required to file information returns for digital asset transactions.

Information reporting by DeFi brokers under section 6045 will lead to higher levels of taxpayer compliance because the income earned by taxpayers engaging digital assets transactions without a custodial broker will be made more transparent to both the IRS and taxpayers. Clear information reporting rules that require DeFi brokers to report gross proceeds for taxpayers who engage in digital asset transactions will help the IRS identify taxpayers who have engaged in these transactions, and thereby help to reduce

the overall tax gap. These final regulations are also expected to facilitate the preparation of tax returns (and reduce the number of inadvertent errors or intentional misstatements shown on those returns) by and for taxpayers who engage in digital asset transactions.

B. Affected Small Entities

As discussed above, we anticipate a maximum of approximately 865 of the 875 (or 98.8 percent) impacted issuers in the upper bound estimate could be small businesses.

1. Impact of the Rules

As previously stated in the Paperwork Reduction Act section of this preamble, the reporting of digital asset sales by DeFi brokers pursuant to §1.6045-1 is on Form 1099-DA.

To estimate the impact of these final regulations on small DeFi brokers, the Treasury Department and the IRS first estimated the number of customers that will have transactions subject to these final regulations. To determine the number of customers that will have transactions subject to these final regulations, the Treasury Department and the IRS reviewed reports from several digital asset industry participants. While these reports indicate that there were over 196 million visits to the websites providing access to the DeFi trading protocols in the most recent month and $1.9 trillion in 24-hour trading volume for the most recent 24-hour period, these amounts do not reflect the number of customers that will be impacted by these regulations because a single customer may visit a website providing access to the DeFi trading protocols more than once in a month and may or may not engage in a trade each time they visit the website and the customer may also engage in different size transactions.[28] Additionally neither

[28] CoinGecko, Top Decentralized Exchanges Ranked by 24H Trading Volume, amounts referenced from the last date visited, https://www.coingecko.com/en/exchanges/decentralized (last visited November 27, 2024).

the visits nor the trading volume were separately reported for U.S. and non-U.S. customers. In an attempt to narrow down this information to determine the number of customers that each DeFi protocol services, the Treasury Department and the IRS reviewed a recent analysis that found the North American cryptocurrency market is the largest cryptocurrency market, with an estimated $1.2 trillion in value received on-chain between July 2022 and June 2023, which represents 24.4% of global transaction activity.[29] These on-chain transactions are likely correlated with DeFi transactions because many centralized brokers effect their customer transactions utilizing omnibus ledgers. Another analysis reported that the number of unique worldwide DeFi users reached a peak of 7.5 million in late 2021, whereas in April 2024, the total number of DeFi users was only 5 million.[30] Based on this information, the Treasury Department and the IRS have determined that best-available estimate of the minimum number of customers impacted by these regulations is 20% of the peak users in 2024, which is an estimate of 1 million customers, and the maximum number of customers impacted by these regulations is 35% of the peak users in 2021, which is an estimated 2.625 million customers, with a mid-point of approximately 1,812,500 customers.[31]

Next, the Treasury Department and the IRS estimated the average time for a DeFi broker to complete the Form 1099-DA. These final regulations do not change the information required to be reported on the Form 1099-DA as provided in TD 10000. Therefore, the Treasury Department and the IRS have concluded that it is appropriate to use the average time to complete the Form 1099-DA estimate from TD 10000, which

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[29] Chainalysis Team, *North America Leads World in Crypto Usage Despite Ongoing Regulatory Questions, While Stablecoin Activity Shifts Away from U.S. Services*, Chainalysis (October 23, 2023), available at https://www.chainalysis.com/blog/north-america-cryptocurrency-adoption/ (last visited November 29, 2024).

[30] Ruby Layram, *Eye-Opening DeFi Statistics & Facts (Updated for 2024)*, Bankless Times (August 1, 2024), available at https://www.banklesstimes.com/defi-statistics/ (last visited November 29, 2024).

[31] While country-specific information is difficult to obtain, information on the North American cryptocurrency market would include U.S. users. Treasury and IRS use this information even though it is an over-estimate of U.S. users.

is between 7.5 minutes and 10.5 minutes, with a mid-point of 9 minutes (or 0.15 hours), for each customer. This estimate is based survey data collected from similar information return filers which include small businesses.

Finally, the Treasury Department and the IRS estimated the average start-up costs per broker. The proposed regulations estimated that initial start-up costs would be between three and eight times annual costs. Several comments said that these costs were underestimated because many of the persons treated as brokers under the proposed regulations are newer companies with limited funding and resources. One comment said the multiple applied was too low and a five to ten times annual costs would be a more reasonable estimate given the complexity of the reporting regime and would more closely align with prior start-up costs for similar reporting regimes. Consistent with TD 10000 and a continuing acknowledgment that it is difficult to estimate start-up costs, the Treasury Department and the IRS accept the comment to use a five to ten times annual cost multiplier to determine the estimate of these costs for DeFi brokers.

In summary, the Treasury Department and the IRS estimate that approximately 865 of the 875 (or 98.8 percent) impacted issuers in the upper bound estimate could be small businesses. The Treasury Department and the IRS estimate that 1,812,500 customers will be impacted by these final regulations. As previously noted, the number of DeFi brokers is based on the number of DeFi trading protocols, rather than the number of trading front-end service providers because the number of trading front-end service providers is not readily available. It is not possible to know how many DeFi users engage in transactions with each DeFi trading protocol. Given the lack of information available, the Treasury Department and the IRS have assumed that each customer uses one DeFi trading protocol, which results in an estimate of approximately 2,400 customers per broker. A reasonable estimate for the average time to complete

these forms for each customer is 9 minutes (0.15 hours). Therefore, the Treasury Department and the IRS estimate the average time burden per broker will be approximately 360 hours. Additionally, start-up costs are estimated to be between five and ten times annual costs. Given the expected per-DeFi broker annual burden of 360 hours, the Treasury Department and the IRS estimate per-DeFi broker start-up burden between 1,800 to 3,600 in start-up costs to build processes to comply with the information reporting requirements.

Although small DeFi brokers may engage third party tax reporting services to complete, file, and furnish information returns to avoid the start-up costs associated with building an internal information reporting system for sales of digital assets, it remains difficult to predict whether the economies of scale efficiencies of using these services will offset the somewhat more burdensome ongoing costs associated with using third party contractors.

2. Alternatives Considered for Small Businesses

The Treasury Department and the IRS considered alternatives to these final regulations that would have created an exception to reporting, or a delayed applicability date, for small DeFi brokers but decided against such alternatives for several reasons. As discussed above, we anticipate that approximately 865 of the 875 (or 98.8 percent) impacted issuers in the upper bound estimate could be small businesses. One purpose of these regulations is to eliminate the overall tax gap. Any exception or delay to the information reporting rules for small DeFi brokers, which may comprise the vast majority of impacted issuers, would reduce the effectiveness of these final regulations. In addition, such an exception or delay could have the unintended effect of incentivizing taxpayers to move their business to excepted small DeFi brokers, thus thwarting IRS efforts to identify taxpayers engaged in digital asset transactions. Additionally, because the information reported on statements furnished to customers will remind taxpayers

who engage in DeFi transactions that the transactions are potentially taxable, thereby reducing the number of inadvertent errors or noncompliance on their Federal income tax returns, information reported by small DeFi brokers will be able to offer their customers the same amount of useful information as their larger DeFi competitors. Finally, to the extent investors in digital assets are themselves small businesses, these final regulations will also provide these businesses with the same reminders that the DeFi transactions are taxable.

3. Duplicate, Overlapping, or Relevant Federal Rules

These final regulations do not overlap or conflict with any relevant Federal rules.

IV. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 requires that agencies assess anticipated costs and benefits and take certain other actions before issuing a final rule that includes any Federal mandate that may result in expenditures in any one year by a State, local, or Tribal government, in the aggregate, or by the private sector, of $100 million in 1995 dollars, updated annually for inflation. This rule does not include any Federal mandate that may result in expenditures by State, local, or Tribal governments, or by the private sector in excess of that threshold.

V. Executive Order 13132: Federalism

Executive Order 13132 (entitled “Federalism”) prohibits an agency from publishing any rule that has federalism implications if the rule either imposes substantial, direct compliance costs on State and local governments, and is not required by statute, or preempts State law, unless the agency meets the consultation and funding requirements of section 6 of the Executive order. This final rule does not have federalism implications, does not impose substantial direct compliance costs on State and local governments, and does not preempt State law within the meaning of the Executive order.

VI. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), the Office of Information and Regulatory Affairs designated this rule as a major rule as defined by 5 U.S.C. 804(2).

Statement of Availability of IRS Documents

IRS Revenue Procedures, Revenue Rulings, Notices, and other guidance cited in this document are published in the Internal Revenue Bulletin and are available from the Superintendent of Documents, U.S. Government Publishing Office, Washington, DC 20402, or by visiting the IRS website at https://www.irs.gov.

Drafting Information

The principal authors of these regulations are Roseann Cutrone and Jessica Chase, Office of the Associate Chief Counsel (Procedure and Administration). However, other personnel from the Treasury Department and the IRS participated in their development.

List of Subjects in 26 CFR Part 1

Reporting and recordkeeping requirements.

Amendments to the Regulations

Accordingly, 26 CFR part 1 is amended as follows:

PART 1—INCOME TAXES

Paragraph 1. The authority citation for part 1 is amended by revising the entry for §1.6045-1 to read in part as follows:

Authority: 26 U.S.C. 7805 * * *

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Section 1.6045-1 also issued under 26 U.S.C. 6045(a).

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Par. 2. Section 1.6045-0 is amended by:

1. Revising the entries for §1.6045-1(a)(21), (a)(21)(i) through (iii), and (a)(21)(iii)(A);

2. Adding entries for §1.6045-1(a)(21)(A)(iii)(*1*) and (*2*);

3. Revising the entry for §1.6045-1(a)(21)(iii)(B); and

4. Adding entries for §1.6045-1(a)(21)(iii)(C), (a)(21)(iii)(C)(*1*) and (*2*), and (a)(21)(iii)(D).

The revisions and additions read as follows:

§1.6045-0 Table of contents.

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§1.6045-1 Returns of information of brokers and barter exchanges.

(a) * * *

(21) Digital asset middleman.
(i) Effectuating service.
(ii) Position to know.
(iii) Trading front-end service and other effectuating services.
(A) Trading front-end service.
(*1*) In general.
(*2*) Location of digital assets received in an exchange and indirect transmission of orders.
(B) Other effectuating services.
(C) Excluded activities.
(*1*) Validation services.
(*2*) Licensing of software or selling of hardware.
(D) Digital asset trading protocol.

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Par. 3. Section 1.6045-1 is amended by:

a. Revising and republishing paragraph (a)(21);

b. Revising paragraphs (b)(2)(ix) and (x);

c. Adding paragraphs (b)(2)(xi) and (b)(24) and (25); and

d. Adding a sentence to the end of paragraph (q).

The revisions and additions read as follows:

§1.6045-1 Returns of information of brokers and barter exchanges.

(a) * * *

(21) *Digital asset middleman*. The term *digital asset middleman* means any person who is responsible for providing an effectuating service as defined in paragraph (a)(21)(i) of this section with respect to a sale of digital assets.

(i) *Effectuating service*. The term *effectuating service* means any service, with respect to a sale of digital assets, that is:

(A) A trading front-end service described in paragraph (a)(21)(iii)(A) of this section wherein the nature of the service arrangement is such that the person providing that service ordinarily would know or be in a position to know within the meaning of paragraph (a)(21)(ii) of this section the nature of the transaction potentially giving rise to gross proceeds from the sale of digital assets; or

(B) Any other service described in paragraph (a)(21)(iii)(B) of this section.

(ii) *Position to know*. A person providing trading front-end services 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 if that person maintains control or sufficient influence over the trading front-end services 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. A person providing trading front-end services will be considered to maintain control or sufficient influence over such services as referred to in this paragraph (a)(21)(ii) if that person has the ability to amend, update, or otherwise substantively affect the terms under which the services are provided or the manner in which the order described in paragraph (a)(21)(iii)(A) of this section is processed. Additionally, a person providing trading front-end services will be considered to maintain control or sufficient influence over such services as referred to in this paragraph (a)(21)(ii) if that person has the ability to collect the fees charged for those services from

the transaction flow (including from the digital assets disposed of or the digital assets received by the customer in the sale), whether or not the person actually collects fees in this manner. A person providing trading front-end services also will be considered to maintain control or sufficient influence over such services as referred to in this paragraph (a)(21)(ii) if that person has the ability, in connection with processing the order described in paragraph (a)(21)(iii)(A) of this section, to add to the order a sequence of instructions to query the cryptographically secured distributed ledger to determine if the processed order is, in fact, executed or to use another method of confirmation based on information known to that person as a result of providing the trading front-end services. Except as provided by the Secretary, a contractual or other restriction not required by law that limits the ability of the person providing trading front-end services to amend, update, or otherwise substantively affect the terms under which the services are provided (including the manner in which any fees are collected) or the manner in which the order is processed will be disregarded for purposes of this paragraph (a)(21)(ii).

(iii) *Trading front-end service and other effectuating services*--(A) *Trading front-end service*--(*1*) *In general*. A *trading front-end service* means a service that, with respect to a sale of digital assets, receives a person's order to sell and processes that order for execution by providing user interface services, including graphic and voice user interface services, that are designed to:

(*i*) Enable such person to input order details with respect to a transaction to be carried out or settled on a cryptographically secured distributed ledger (or any similar technology); and

(*ii*) Transmit those order details so that the transaction can be carried out or settled on a cryptographically secured distributed ledger (or any similar technology), including by transmitting the order details to the person's wallet in such form that, if

authorized by the person, causes the order details to be transmitted to a distributed ledger network for interaction with a digital asset trading protocol as defined in paragraph (a)(21)(iii)(D) of this section.

(*2*) *Location of digital assets received in an exchange and indirect transmissions of orders*. A service is a trading front-end service regardless of whether the digital assets received in the exchange are received in the wallet of the person providing the order details or in the wallet of another person pursuant to the first person's order details. The direct or indirect transmission to a distributed ledger network of order details that call upon or otherwise invoke the functions of automatically executing contracts that comprise a digital asset trading protocol is a transmission of order details to a distributed ledger network for interaction with a digital asset trading protocol.

(B) *Other effectuating services*. An *effectuating service* also means any of the services described in paragraphs (a)(21)(iii)(B)(*1*) through (*5*) of this section.

(*1*) The acceptance or processing of digital assets as payment for property of a type which when sold would constitute a sale under paragraph (a)(9)(i) of this section by a broker that is in the business of effecting sales of such property.

(*2*) Any service performed by a real estate reporting person as defined in §1.6045-4(e) with respect to a real estate transaction in which digital assets are paid by the real estate buyer in full or partial consideration for the real estate, provided the real estate reporting person has actual knowledge or ordinarily would know that digital assets were used by the real estate buyer to make payment to the real estate seller. For purposes of this paragraph (a)(21)(iii)(B)(*2*), a real estate reporting person is considered to have actual knowledge that digital assets were used by the real estate buyer to make payment if the terms of the real estate contract provide for payment using digital assets.

(*3*) The acceptance or processing of digital assets as payment for any service provided by a broker described in paragraph (a)(1) of this section determined without

regard to any sales under paragraph (a)(9)(ii)(C) of this section that are effected by such broker.

(*4*) 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.

(*5*) The acceptance of digital assets in return for cash, stored-value cards, or different digital assets, to the extent provided by a physical electronic terminal or kiosk.

(C) *Excluded activities*--(*1*) *Validation services*. Notwithstanding the definition of trading front-end services or other effectuating services in paragraphs (a)(21)(iii)(A) and (B) of this section, distributed ledger transaction validation services (whether through proof-of-work, proof-of-stake, or any other similar consensus mechanism), including those services necessary to complete the validation, are not effectuating services described in paragraph (a)(21)(i) of this section.

(*2*) *Licensing of software or selling of hardware*. If a person licenses software or sells hardware that provides unhosted wallet services that include both trading front-end services with respect to some sales of digital assets and other services that are not trading front-end services or other effectuating services under paragraph (a)(21)(iii)(B) of this section with respect to other sales of digital assets, that person is providing effectuating services only with respect to the sales of digital assets that are carried out using the trading front-end services provided by the unhosted wallet software licensed or hardware sold.

(D) *Digital asset trading protocol*. A *digital asset trading protocol* means a distributed ledger application consisting of computer software, including automatically executing contracts, that exchange one digital asset for another digital asset pursuant to instructions from a user.

* * * * *

(b) * * *

(2) * * *

(ix) A person engaged in validating distributed ledger transactions, through proof-of-work, proof-of-stake, or any other similar consensus mechanism, including a person that provides services necessary to complete the validation, without providing other functions or services that are effectuating services under paragraph (a)(21)(i) of this section.

(x) A person engaged in selling hardware or licensing of 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 that are effectuating services under paragraph (a)(21)(i) of this section.

(xi) An operator of a digital asset trading protocol defined in paragraph (a)(21)(iii)(D) of this section that provides a distributed ledger application consisting of computer software, including automatically executing contracts, that exchange one digital asset for another digital asset pursuant to instructions from a user, without providing other functions or services that are effectuating services under paragraph (a)(21)(i) of this section.

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(24) *Example 24: Effect, effectuating services, digital asset middleman, position to know, and customer*—(i) *Facts*. As part of B's trade or business, B stands ready to provide customers with trading front-end services in return for a 1% transaction fee withheld either from digital assets transferred or digital assets received by its customers in the trade. B provides these trading front-end services to digital asset user C for the sale of 200 units of digital asset DE in exchange for 1,500 units of digital asset ST (sale 1) and withholds 2 units of DE as a transaction fee. B also provides digital asset validation services for a distributed ledger network. B validates a transaction involving the sale of 20 units of digital asset DE for 150 units of digital asset ST (sale 2). B does not provide any services described in paragraph (a)(21)(iii) of this section with respect to sale 2.

(ii) *Analysis with respect to sale 1*. With respect to sale 1, B has the ability to collect fees charged for its trading front-end services from the transaction flow. Accordingly, B is in a position to know the nature of sale 1 under paragraph (a)(21)(ii) of this section because B maintains control or sufficient influence over the trading front-end services 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. Because B provides a trading front-end service with respect to sale 1 and is in a position to know the nature of sale 1 under paragraph (a)(21)(ii) of this section, B provides an effectuating service under paragraph (a)(21)(i)(A) of this section. Accordingly, B is a digital asset middleman under paragraph (a)(21) of this section with respect to sale 1. Additionally, B effects sale 1 for C under paragraph (a)(10)(i)(D) of this section, and C is B's customer under paragraph (a)(2)(i)(D) of this section.

(iii) *Analysis with respect to sale 2*. Under paragraph (a)(21)(iii)(C) of this section, B's validation services with respect to sale 2 are not effectuating services. Accordingly, notwithstanding that B acts as a digital asset middleman with respect to sale 1, B does not act as a digital asset middleman with respect to sale 2 or effect sale 2.

(25) *Example 25: Effect, effectuating services, position to know, digital asset middleman and customer*—(i) *Facts*. Corporation S is engaged in the business of operating and maintaining a website that licenses S-brand unhosted wallets (S-Wallets). S-Wallets are accessible online, allow users to control private keys to digital asset addresses, and allow users to transfer (and receive) digital assets directly from (into) their S-Wallets. S also offers trading front-end services (S-Trade) to each S-Wallet user. S charges S-Wallet users that dispose of digital assets held in their S-Wallets using the S-Trade service a 1% transaction fee that is withheld by S either from the digital assets transferred or the digital assets received by the user in the trade. S-Wallet users can use the S-Wallet's private key control function and can transfer digital assets to and from their S-Wallets without using the S-Trade function. S-Wallet user K uses the S-Trade function within K's S-Wallet to trade 200 units of digital asset DE for 1,500 units of digital asset ST (sale 1). S withholds 2 units of DE as a transaction fee with respect to this trade. K also uses the S-Wallet to transfer 5 units of DE directly to the digital asset address of another person's wallet in return for services provided by that other person (sale 2). S does not provide any other services described in paragraph (a)(21)(iii) of this section with respect to sale 2.

(ii) *Analysis with respect to sale 1*. With respect to sale 1, S has the ability to collect fees charged for its trading front-end services from the transaction flow. Accordingly, S is in a position to know the nature of sale 1 under paragraph (a)(21)(ii) of this section because S maintains control or sufficient influence over the trading front-end services 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. Because S provides a trading front-end service with respect to sale 1 and is in a position to know the nature of sale 1 under paragraph (a)(21)(ii) of this section, S provides an effectuating service under paragraph (a)(21)(i)(A) of this section. Accordingly, S is a digital asset middleman under paragraph (a)(21) of this section with respect to sale 1. Finally, S effects sale 1 for K under paragraph (a)(10)(i)(D) of this section, and K is S's customer under paragraph (a)(2)(i)(D) of this section.

(iii) *Analysis with respect to sale 2*. S's services with respect to sale 2 are not effectuating services under paragraph (a)(21)(i) of this section because these services are not described in paragraph (a)(21)(iii)(B) of this section and are not trading front-end services under paragraph (a)(21)(iii)(A) of this section. Accordingly, notwithstanding that S acts as a digital asset middleman with respect to sale 1, S does not act as a digital asset middleman with respect to sale 2 or effect sale 2.

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(q) * * * Paragraphs (a)(21), (b)(2)(ix) through (xi), and (b)(24) and (25) of this section apply to sales of digital assets on or after January 1, 2027. (For sales of digital assets before January 1, 2027, *see* 26 CFR 1.6045-1, as revised September 9, 2024.)

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