Demystifying DeFi tax

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In brief

The exponential growth of decentralized finance (DeFi) has brought access to, and interest in, these platforms to a wider range of users — from individuals to institutional investors and multinational organizations. The technology makes sophisticated finance transactions available to all kinds of users in a variety of locations.

Although other jurisdictions (e.g., United Kingdom) have started issuing tax guidance in this area, to date taxation of DeFi transactions has not been specifically addressed in published guidance by US tax regulators. As individuals and entities navigate this uncertainty, it is notable that all the characteristics that make DeFi transformative to the future of finance also are features that make it challenging to address from a US tax standpoint.

We outline below the fundamental features of a DeFi ecosystem, and highlight how they can affect the US taxation of the transactions entered into through the ecosystem.

The key takeaways are:

- DeFi is complicated. Each DeFi ecosystem is different, and the US tax results depend on the specific asset and the substance of the specific transaction undertaken.

- Tax may be incurred in advance of selling the DeFi investment.

- The recordkeeping obligations to support US tax return reporting require transaction-by-transaction information that may necessitate gathering information from multiple sources.

Action item: Investors and traders should start now to gather relevant information to make these determinations with the goal of having sufficient time to identify US tax consequences. This is particularly important where such information is not stored in a centralized account or reporting technology, or where such reporting technology does not capture all relevant data to facilitate required US tax reporting.

In detail

What is DeFi?
DeFi is a term used to describe a blockchain ecosystem in which participants can interact (via smart contracts) to engage in transactions typically engaged in today via traditional finance channels.

DeFi as a concept generally reflects five core tenets:

- **Autonomous/decentralized**: DeFi applications (DApps) do not have restricted access, and the operations generally are not managed by an institution or a central authority.

- **Available/geographically agnostic**: Without limits imposed for tax or regulatory reasons, DeFi applications are available from anywhere in the world at any time of the day.

- **Transparent**: Most of the time, the code of the DApp is publicly available for anybody to look at or audit; also, all the interactions with the DApp which are represented by transactions are available on a public blockchain (although the parties are pseudo-anonymous).

- **Disintermediated**: Any DApp creator can create an application that allows participants to interact directly via smart contracts without having to go through a third-party financial intermediary.

- **Interoperable and composable**: DeFi applications can be run on several blockchains and applications can be built or composed by combining other DeFi applications. A further attraction is the concept of composability, which means anyone can mix and match any existing DeFi offering to build a new one.

These five core features allow users to lend and borrow in cryptocurrency, create smart contracts or arrangements that derive their value indirectly from one or more cryptocurrencies, and/or earn periodic income (or yield) from participating in one or more of these transactions. The platforms themselves may fulfill a number of roles traditionally satisfied by financial intermediaries, such as exchanges, market makers, dealers, and banks. Purchasers of the tokens (which are used to support and pay transactional gas fees on these networks) benefit when more users use the platform (through either periodic income and/or appreciation in the tokens). Further, holders of the tokens may make them available (via staking) to help support validation of transactions on the network, earning additional returns or yield.

**What are the potential US tax consequences of these transactions?**

US income taxation generally is transactional — i.e., imposed at the time of receipt or sale of a token, with exceptions. In general, value fluctuations are not taxed between purchase/acquisition and sale (or disposition) of the token. Taxable events occur when a person does something with that token.

**Timing of recognition of gain on transfers/exchanges**: Although these platforms may use the terms “loan,” “lending,” and “yield,” the current US tax rules do not protect all loans of property from the recognition of gain.

- Exchanging one or more cryptocurrencies for a DeFi token (including minting new DeFi tokens, whether fungible or non-fungible tokens) may result in recognition of gain or loss at the time of the exchange.

- Similarly, exchange of the DeFi token for one or more cryptocurrencies (including burning the DeFi token) may result in the recognition of gain or loss at the time of the exchange.

**Observation**: Under current tax law, these transactions are not covered by the rules that protect loans of securities from the recognition of gain or loss. There are legislative proposals to broaden such protection to cryptocurrency loans, but even if such a proposal were enacted, it might not cover most DeFi platforms as currently structured.
**Timing of recognition of periodic income:** Participating in certain DeFi protocols entitles the holder to receive, or have set aside/credited to their account, additional tokens (representing “yield” or a portion of the fees earned on the platform).

The timing of income from these arrangements when paid in cryptocurrency is the subject of ongoing debate:

- If the arrangement is viewed as analogous to staking or mining income, the IRS might assert that the tokens are taxable upon receipt or when they may be freely claimed.
- Token holders may seek to assert that the amounts are not taxable until the token received is sold, a position the IRS has challenged in court filings.

**Observation:** This question is further complicated in the DeFi context because DeFi protocols differ as to when the tokens are received, may be claimed, or are restricted from receipt by the token holder. The more meaningful restrictions on the receipt of the tokens, the less likely the tokens may be viewed as taxable until such restrictions lapse.

**Amount of gain or income:** The amount of taxable income or loss realized upon exchanging cryptocurrency for the DeFi token (and return receipt of cryptocurrency when exiting the DeFi protocol) is measured based on the fair market value of the cryptocurrency and token received or disposed of at the time of the exchange.

- Similarly, any periodic income from the receipt of tokens as “yield” or “rewards” should be included in income at the fair market value at the date/time the tokens are actually or constructively received.
- This requires detailed recordkeeping on the date/time of receipt or exchange, reliable fair market value information, and, for tokens acquired in an exchange, tracking the acquisition price or income picked up associated with the token to establish the basis in the token.

**Observation:** In many DeFi protocols, this information is not readily available and needs to be tracked separately by the taxpayer.

**Character of income:** The character of the income, deduction, gain or loss (which affects the tax rate applied and the items against which gains and losses can be netted) depends on the kind of income:

- Gain or loss from cryptocurrency exchanges related to DeFi protocols may be capital gain or loss if the asset is held for investment or trading purposes.
  - Because DeFi protocols often replicate the financial services rendered by “business entities,” there is risk that these may be treated as “business entities” under US tax rules.
  - If the DeFi protocol itself is treated as a non-US “business entity” from a US tax perspective, a portion of the income might be treated as ordinary income (and taxed at higher rates).
- The periodic income (i.e., staking return or yield) may be treated as ordinary in character.

**Observation:** Such treatment could result in a potentially unfavorable whipsaw if yield (paid in tokens) is included as ordinary income when the trading price is high and then the token is sold when the price has dropped, resulting in taxable ordinary income at a higher rate and an inability to offset that amount with the loss on the sale of the token (because capital losses generally cannot be used to offset ordinary income).

**Impact for non-US persons:** Certain kinds of “periodic” income, if US source, may be subject to information reporting and withholding at source (at a rate up to 30%) if paid to a non-US person. Further, certain kinds of
activities are taxable currently in the United States on a net basis if treated as “effectively connected” to a “US trade or business” (and in such cases may give rise to a requirement to file US tax returns).

- Periodic income considerations:
  - There currently are no specific rules to determine whether income is paid from a source within, or outside of, the United States for DeFi transactions.
  - Absent such rules, sourcing of income is based on the closest analogy, which may depend on the substance of the specific DeFi protocol and the functions that it may be replicating from traditional finance.
  - The fact that a withholding agent does not withhold does not prevent the recipient from being liable for US taxes if the payments otherwise are subject to US withholding tax.

- US trade or business considerations:
  - Because certain DApps replicate activities traditionally performed by business entities, they raise the question of whether the US tax authorities might seek to tax a portion of the activities that have some kind of US nexus.
  - Purchase of a DeFi token, or holding a token to receive passive investment returns, is not necessarily the target of these US tax rules.

**Observation**: Given the uncertainty in this area, prudent taxpayers will want to assess the risk specific to an investment with a qualified tax advisor.

**Tax information reporting for US persons**: Information reporting and backup withholding are required for certain types of payments (interest, dividends, other income, fees, etc.) and certain transactions (brokered dispositions, etc.). These payments and transactions give rise to information reporting that may have to be sent to both the IRS and the taxpayer.

- Periodic income received during the course of a calendar year may be reportable on a Form 1099 under current law to certain US beneficial owners of the income.
- US tax legislation enacted in 2021 added information reporting for exchanges of certain digital assets, as well as other information reporting rules (such as reporting on transfers from a “broker” to a non-broker wallet).

**Observation**: The scope of these information reporting rules is not yet clear. The Treasury Department and the IRS are working on published guidance to clarify the application of these rules (with an expected effective date of January 1, 2023).

**Global tax information reporting under the Common Reporting Standard (CRS) and the Crypto Asset Reporting Framework (CARF)**:

- There are global information reporting proposals through the OECD that would expand this kind of information reporting to participating jurisdictions.
- Financial institutions as defined by CRS would be required to treat certain crypto assets as financial assets and report on their account holders that are tax resident in a participating jurisdiction.
• Reporting crypto-asset service providers defined under CARF would be responsible for reporting acquisitions and dispositions of crypto assets for both their account holders and others for whom they facilitate a crypto asset exchange.

Let’s talk

For a deeper discussion of how this issue might affect your business, please contact:

Advisory

Matthew Blumenfeld
+1 (609) 273-6020
matthew.blumenfeld@pwc.com

John Oliver
+1 (202) 262-1132
john.m.oliver@pwc.com

Financial Services

Jay Klein
+1 347-697-8246
jay.j.klein@pwc.com

Mazhar Wani
+1 415-515-4451
mazhar.wani@pwc.com

International Tax Services

Rebecca Lee
+1 202-280-5721
rebecca.e.lee@pwc.com

Tax Controversy & Regulatory Services

Candace Ewell
+1 202-280-9278
candace.b.ewell@pwc.com