

MEMORANDUM

To: Crypto Task Force Meeting Log
From: Crypto Task Force Staff
Re: Meeting with Representatives of the Digital Economy Initiative

On April 17, 2025, Crypto Task Force Staff met with representatives from the Digital Economy Initiative.

The topic discussed was approaches to addressing issues related to regulation of crypto assets. The Digital Economy Initiative representatives provided the attached documents, which were discussed during the meeting.

Attendees and Agenda for Proposed SEC Crypto Task Force Meeting

List of Attendees:

1. Ijeoma Okoli, Director, Digital Economy Initiative and Adjunct Professor, St. John's University School of Law
2. Eva Lawrence, Head of EMEA, Figment and Advisory Council Member, Digital Economy Initiative
3. Jennie Levin, Chief Regulatory and Strategy Officer, Figment
4. Toby Norfolk-Thompson, Chief Commercial Officer, Trident Digital and Director and Chair of Advisory Council, Digital Economy Initiative

*Please note that each attendee is attending in his/her individual capacity.

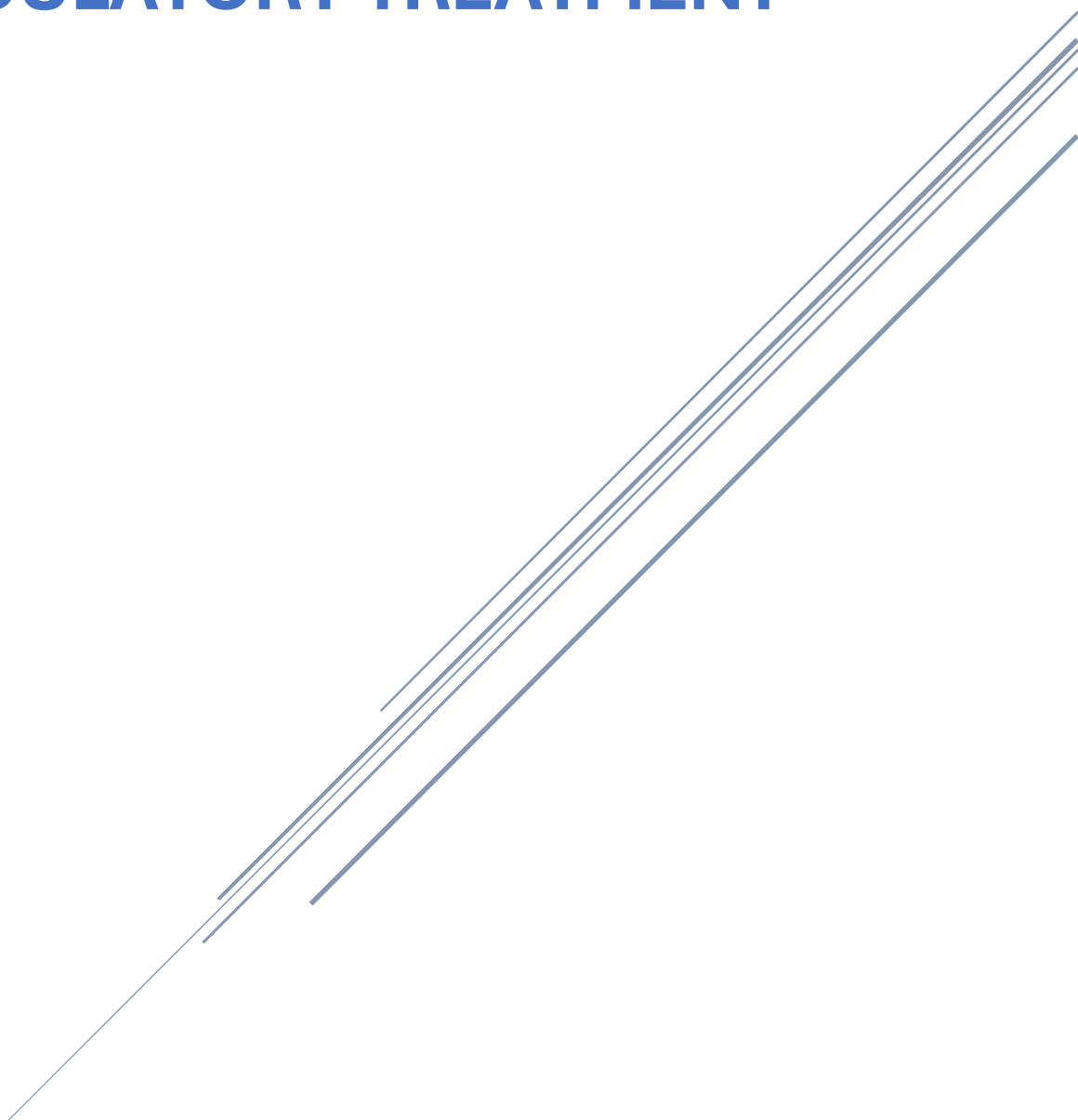
Agenda:

The purpose of the meeting is to provide an overview of staking activity in crypto markets and discuss the regulatory treatment of staking. In particular, we hope to (1) provide a description of recent independent research and proposals on staking detailed in the attached paper: "Variations in Blockchain Staking Programs and Potential US and UK Regulatory Approach" including the following topics:

1. Staking taxonomy and features
2. Clarity on the different activities that currently fall under the staking umbrella.
3. Proposed areas for initial SEC guidance on staking activities
5. Extraterritorial application and international cooperation



VARIATIONS IN BLOCKCHAIN STAKING PROGRAMS AND POTENTIAL US AND UK REGULATORY TREATMENT



Ijeoma Okoli, Eva Lawrence and Jennie Levin
February 7, 2025



Variations in Blockchain Staking Programs and Potential US and UK Regulatory Treatment

By [Ijeoma Okoli](#), [Eva Lawrence](#) and [Jennie Levin](#)¹

The authors wish to thank [Barney Reynolds](#), [Wilf Odgers](#), [Josh Deems](#), [Lee Schneider](#), [James Newman](#) and [Michael Adams](#) for availing us of their invaluable expertise in various matters discussed in this paper.

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¹ The opinions, positions and views expressed in this paper are those of the authors alone and may not necessarily represent the opinions, positions and/or views of members of the Digital Economy Initiative's Advisory Council or any organizations with which the authors or members of the Advisory Council may be affiliated.



Section I: Introduction

There are two primary methods for validating and adding records of transactions to a blockchain, namely Proof of Work (“PoW”) and Proof of Stake (“PoS”).² These methods are called consensus mechanisms, and they serve as a mode of agreement on the true state of verified transactions on a blockchain and as security against a malicious actor gaining control over the network. PoW requires computational resources to solve complex mathematical problems, with the first to solve each of these problems gaining the right to validate transactions and earn the rewards for the associated new block on the blockchain. This process is known as mining. Bitcoin, the first cryptocurrency and largest by market capitalization, runs on a PoW blockchain, also called Bitcoin³ and was conceptualized in 2008 by a person or persons pseudonymously known as Satoshi Nakamoto. The initial reward amount was set at 50 bitcoins in 2009 when the first transaction occurred on the blockchain. The rewards have been automatically cut in half every 4 years since then. The latest ‘halving’ occurred in mid-April 2024, which reduced the reward to 3.125 bitcoins per new block.

The second major consensus mechanism, PoS, relies on the utilization of a person’s/entity’s accumulated holding (a “stake”) of the relevant blockchain token⁴ to confirm transactions on the blockchain. The ‘staker’ commits resources, typically in the form of the relevant blockchain’s native digital assets,⁵ its tokens, in connection with verifying transactions and related record entries on the cryptographically secured blockchain or distributed ledger to which the relevant digital assets relate, a process known as staking. A validator, which is a person/entity randomly and automatically chosen to verify transactions on the relevant blockchain could be the staker itself or an agent/delegate of the staker. Confirming transactions on a PoS blockchain affords validators the ability to reap the consequential reward, i.e. the production of new tokens which the validators get to keep. The total reward amounts to the sum of the rewards from validating transactions on the blockchain and any transaction fees paid by people or entities who are seeking to add their transactions to the records of the blockchain. The rewards provide an economic incentive for participants with sufficient assets to use their tokens to secure the network in a seemingly decentralized manner where there is no single point of control or failure. A consequence of the creation (or issuance) of new tokens on PoS blockchains is somewhat akin to monetary inflation in traditional finance. Thus, just as holding physical cash over time (without interest being paid), results in the reduction of the purchasing power of that stash of cash, existing holders of a blockchain’s native token experience similar dilution (a phenomenon known as inflation in blockchain parlance). Engaging in staking allows the participating token owners to minimize or eradicate this dilution with new tokens produced through the staking process. The rewards created through the staking process are generally in the form of the blockchain’s native token although specifics can vary from network to network. The rewards serve to encourage a diversified and theoretically decentralized group of token owners to ensure the security and continued operation of the subject blockchain.

² Bitcoin and Ether, the native tokens of the Bitcoin and Ethereum blockchains, respectively, represent approximately two-thirds of the total market capitalization of cryptoassets (based on data from cryptoassets market data provider, [The Block](#)); they are the most prevalent and most well-known and so this discussion of consensus mechanisms only discusses those two used by the Bitcoin and Ethereum blockchains. There are however other types of consensus mechanisms like Proof of Liquidity, Ripple Labs’ XRP Ledger Consensus Protocol and Stellar’s Proof of Agreement.

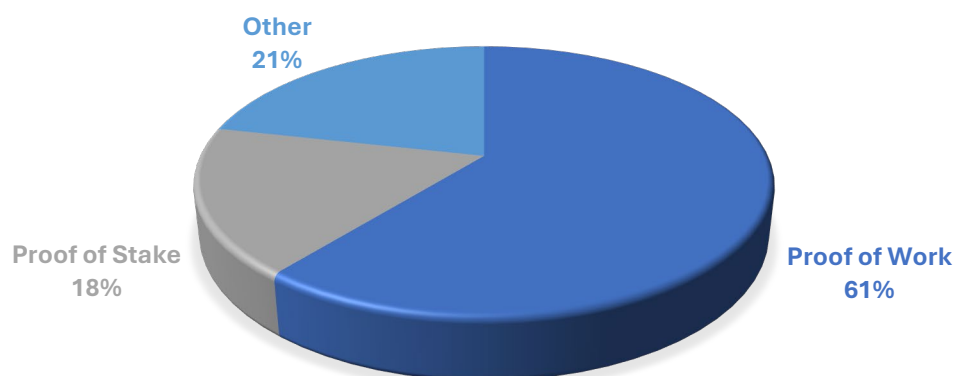
³ The first blockchain actually came into existence in 1995 and was devised to authenticate documents; it was created by cryptographers, Stuart Haber and Scott Stornetta, and has been published weekly in the classified section of The New York Times since 1995 (See Oberhaus, Daniel, [The World’s First Blockchain Has Been Hiding in The New York Times Since 1995](#), Vice (August 27, 2018)).

⁴ For ease of discussion, the term token will be used to refer to both blockchain-based coins and tokens. Coins, e.g. like Bitcoin, Ether, Solana and Cardano, are native to a blockchain and tend to provide a mechanism to access services or are used as a means of payment on the relevant blockchain. Whereas tokens like Uni and Dai are non-native to a blockchain, i.e. they are not essential to the functioning of, or innate to, the relevant blockchain and are deployed on existing blockchains; they also provide a mechanism to access services and can be used as a means of payment.

⁵ Digital assets and cryptoassets are commonly used interchangeably. They are also sometimes referred to as virtual currencies or convertible virtual currencies.



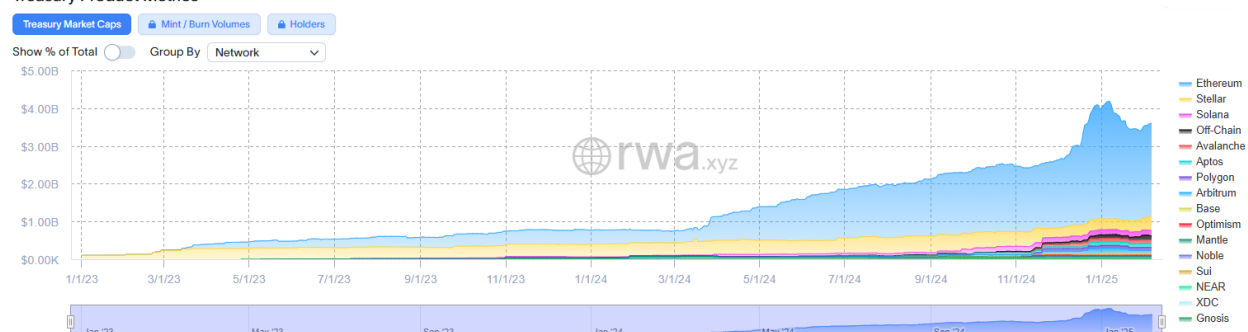
CRYPTO MARKET CAPITALIZATION BY CONSENSUS MECHANISM OF THE UNDERLYING BLOCKCHAIN



Source: [CoinGecko](#) and The Digital Economy Initiative
Updated February 7, 2025

The above figure shows the split, by market capitalization, among consensus mechanisms using data provided by crypto market data provider, CoinGecko. PoS blockchains currently account for approximately 18% of the market capitalization of the crypto market. PoS blockchains also support other non-cryptoasset digital consumer products being built using blockchain technology, like Blackrock's BUIDL tokenized US treasury fund⁶, and the size of these markets makes the impact of PoS blockchains significantly larger than its published total market capitalization conveys. For example, the market capitalization for tokenized US treasury funds built on Ethereum is approximately US \$2.46 billion out of a total tokenized treasury market of approximately US \$3.60 billion as at February 6, 2025, according to tokenized real world asset data provider, RWA.xyz as shown in the figure below.

Treasury Product Metrics



⁶ BusinessWire, [BlackRock Launches Its First Tokenized Fund, BUIDL, on the Ethereum Network](#) (March 20, 2024).



The largest PoS blockchain is the Ethereum blockchain created in 2015. The Ethereum blockchain was previously maintained using PoW, but in September 2022, the Ethereum developer community switched to PoS, an occurrence commonly known as “The Merge”. This switch reduced the amount of energy consumption on the Ethereum network given that maintaining the network no longer required expending the large amount of energy needed to constantly keep computers running and solving mathematical problems required to process transactions using PoW.

It is important to note that the term ‘staking’ is often misused to cover a variety of activities in decentralized finance (“DeFi”) and centralized finance (“CeFi”) within the digital assets sector which are not the technical activity of maintaining and securing a blockchain using the blockchain’s native token, i.e. protocol staking. The variety of activities in the digital assets sector that are currently either termed ‘staking’ or have the word ‘staking’ as part of their names has created confusion about what staking is and consequently affects the potential regulatory treatment, including classification for the determination of whether the activity amounts to an offering of securities (in the US) or of a financial instrument (in the UK and EU).

In Section II of this paper, we seek to identify and define the main types of protocol staking and those activities which are sometimes referred to as staking but are actually different from the technical activity of protocol staking. In Section III we discuss some of the risks related to these activities, and in Section IV, we discuss the potential US and UK financial services regulatory treatment for each such identified activity.



Section II: Staking and Related Activities

As mentioned in Section I, there are several activities in the digital assets sector that are currently either termed ‘staking’ or have the word ‘staking’ as part of their names, however they are not the technical activity of staking on a blockchain for validation purposes. This section contains descriptions of different activities related to protocol staking and describes some other activities that have been referred to as ‘staking’ but that are not in fact the technical activity of staking.

<i>Activity</i>	<i>Description</i>
<i>A. Self (or Solo) Protocol Staking</i>	<p>Self (or Solo) Protocol Staking is where the token owner uses its resources to directly participate in the validation process occurring on a blockchain. The token owner directly acts as a validator on a blockchain network and expects to generate or produce and acquire additional tokens (either the same type or a related one) as a result of employing the owner’s own tokens and providing computational resources to add blocks on a blockchain network (this activity can be analogized to the production of new ears of corn or other crops through farming activity).</p> <p>The token owner maintains control of, and title to, the tokens at all times.</p>
<i>B. Delegated Protocol Staking (Self-Custodial)</i>	<p>Self-Custodial Delegated Protocol Staking involves the same technical staking activity as described in A. Self (or Solo) Protocol Staking. However, Self-Custodial Delegated Protocol Staking occurs in instances where token owners do not have the computational resources or technical expertise required to operate a validator and instead chooses to engage the help of a third-party for the validation (sometimes referred to as a staking provider or staking-as-a-service entity). This entity is a service provider that provides a technical platform and/or is responsible for maintaining the infrastructure (cloud infrastructure or bare metal/servers) that enables individuals/other entities to stake their tokens, obviating the need for a staker to independently purchase and run the required hardware and software programs needed for validation. The staking-as-a-service entity takes a fee for providing the service.</p> <p>The token owner maintains control of, and title to, the tokens at all times (the third-party providing validation services, the staking-as-a-service entity, does not take custody of the tokens). The token owner may self-custody, or it may use an independent third-party custody provider separate and distinct from the staking-as-a-service entity.</p>
<i>C. Delegated Protocol Staking (Custodial)</i>	<p>Custodial Delegated Protocol Staking involves the same technical staking activity as described in A. Self (or Solo) Protocol Staking. However, in Custodial Delegated Protocol Staking, the token owner, instead of directly participating in maintaining the subject blockchain, delegates the use of its tokens to another individual or entity, for example, a CeFi entity such as an exchange or custodian, who acts as a validator for the purpose of participating in the production process on one or more PoS blockchain networks.</p> <p>In this case the delegee would be the party performing the core blockchain validation activities described above in A. Self (Solo) Protocol Staking. The token owner relinquishes control of their tokens to the delegee individual or entity (the owner may also lose title to the tokens) until it revokes its delegation authorization/requests a return of the tokens, and the tokens are actually returned to the owner. The delegee would normally retain a portion of the production output (i.e., the rewards or returns) as a fee for its services.</p>

As discussed above, there are other activities that are commonly referred to as staking or have the word ‘staking’ as part of the term used to describe the activity, however, these activities are different from (and could be performed in addition to) the technical activity of protocol staking. The use of the term ‘staking’ as labels for these other activities is a misnomer and causes confusion. The more common types of these activities are described below.



<i>Activity</i>	<i>Description</i>
<i>D. Pooled Yield/Earn Programs</i>	<p>There are different types of Yield/Earn Programs.</p> <p>Some involve situations where token owners transfer control of their tokens to an entity (for example, an exchange, custodian or asset manager) who takes control of the tokens and pools them with the tokens of other token owners for the purpose of generating promised, fixed returns by using the tokens for multiple different purposes, including protocol staking, lending and yield farming. The centralized entity takes a fee, from the returns generated from these lending-type activities and any rewards generated from protocol staking activity, either at the point when token owners seek to redeem their tokens or periodically, per applicable terms and conditions.</p> <p>Token owners would only regain control of their tokens when they request redemption of their tokens, and the redemption process is complete.</p> <p>These activities are sometimes referred to as pooled staking programs and an example of these types of programs is the one at issue in the February 2023 enforcement action taken by the US Securities and Exchange Commission (“SEC”) against the crypto exchange, Kraken,⁷ where the SEC alleged that the pooled program violated US securities laws.</p> <p>The more prevalent pooled yield/earn programs involve situations where token owners transfer control of their tokens to an entity who takes control of the tokens and pools them with the tokens of other token owners for the purpose of generating returns through lending and/or other activities (no protocol staking is involved). From the returns generated from these activities, the delegee entity would take a fee before returning the net returns to the token owners either at the point when token owners seek to redeem their tokens or periodically, per applicable terms and conditions.</p> <p>Token owners would only regain control of their tokens when they request redemption of their tokens, and the redemption process is complete.</p> <p>Examples of these types of programs are the Gemini Earn program and the BlockFi Lending program, each of which were subject to SEC actions whereby the SEC alleged that these pooled programs violated US securities laws.⁸</p> <p>It is important to stress that although some of these types of programs are sometimes referred to as staking or confused with staking, they are in fact not protocol staking. Protocol staking strictly involves the technical activity of maintaining a PoS blockchain network. Only the activity performed by the delegee in either directly or indirectly deploying the tokens to specifically perform the blockchain maintenance activity as described in (A), (B) or (C) above constitutes protocol staking. All other activities fall outside of protocol staking and result in the creation of a separate product or offering which is not in itself staking.</p>

⁷ See [SEC v. Payward Ventures Inc. \(D/B/A Kraken\) et. al.](#), No. 23-cv-588 (N.D. Cal. Feb. 9, 2023).

⁸ See [SEC v. Genesis Global Capital, LLC and Gemini Trust Company, LLC](#), No. 23-cv-287 (S.D.N.Y. Jan. 12, 2023) and [In the Matter of BlockFi Lending LLC](#), Exch. Act Rel. No. 11029 (Feb. 14, 2022).

<p><i>E. Liquid Staking</i></p>	<p>Given that staking on the Ethereum blockchain requires the locking up of tokens which makes the tokens unavailable for trading, transfer or any other purpose while so staked, one of the innovations that has arisen to provide liquidity to token owners is liquid staking. It is worth noting, however, that the ‘lockup’ period only lasts until the delegator requests that the tokens be unstaked (i.e. removing the assets from the validation process).</p> <p>With liquid staking, a token owner may transfer its tokens to an entity for delegated protocol staking or a pooled yield/earn program, and in addition seek to use the value of the staked tokens for other purposes (for example to lend the value to others on a DeFi platform). So, the token owner may request from a liquid staking token issuer (which could be the same entity through which the token owner staked its original token) ‘liquid’ staking tokens evidencing the value of the staked tokens.⁹ These liquid staking tokens must later be returned to the issuer by the then bearer of the liquid staking tokens in order to redeem the original staked tokens.</p> <p>Alternatively, a token owner may deposit its tokens into a smart contract, like the Lido Protocol, and in return receive liquid staking tokens which the owner can use for any purpose so long as the relevant liquid staking tokens are accepted for such purposes.</p> <p>The only point at which the owner can regain control (or a person to whom the original owner has transferred ownership can gain control) over the original tokens is when, or if, it relinquishes the liquid tokens, at which point it has a right to receive the original assets (subject to any delays imposed by unbonding or lockup periods (see Section III.A below for a description of unbonding periods)) plus any associated returns and/or minus any decrease in the assets due to slashing of the stake (see Section III. A below for a description of slashing).</p> <p>Unbonding or lockup periods vary, meaning that the tokens are not immediately available to the token owner. Unbonding or lockup periods are the amount of time it takes to remove the relevant tokens from the blockchain validation process.</p> <p>It is also important to note here that Liquid Staking is also not protocol staking.</p>
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⁹ For an example of these types of Liquid Staking programs, see the [Coinbase cbETH Whitepaper](#) (updated June 2024).

<p><i>F. Restaking</i></p>	<p>Here the token owner is able to use its tokens to maintain the main blockchain through staking (as described in in A or B above) and can opt in to a smart contract protocol¹⁰ for its stake to be used to secure different protocols (or used for other purposes) other than the native blockchain to which the original tokens belong, for example using the EigenLayer platform. Liquid staking tokens may also be used for this purpose. The benefit of Restaking for a beneficial owner of tokens is that he/she can reuse his/her staked tokens for additional returns on top of the base or native (layer 1) blockchain layer staking returns. This form of restaking could carry multi-layer slashing risks attributable to the main blockchain and secondary blockchain, applications or other services for which the tokens are used.</p> <p>Another new form of restaking is the use of staked tokens, not to secure a network, but rather to provide capital for the development of new networks (the capital is used to compensate developers or used by users of the network), for example the Morpheus decentralized artificial intelligence network, whose initial capital is derived from voluntary contributions of staked Ether (stEth) to the Morpheus community treasury, which in turn grows in value from the returns on the stEth (i.e. Ethereum blockchain staking rewards).¹¹ Contributors are compensated with tokens, MOR tokens, the underlying token of the Morpheus network. There are no slashing risks associated with this type of restaking above and beyond the slashing risks inherent to the main Ethereum blockchain on which the Ether tokens are natively staked.</p> <p>Ethena is another platform that uses value generated from staking Ether on the Ethereum blockchain as revenue (along with income generated from other activities) for other purposes – in the Ethena case as a source of revenue to stabilize the value of its synthetic dollar product.</p> <p>Restaking is also not protocol staking which is restricted to base layer blockchain validation activities.</p>
<p><i>G. Liquid Restaking</i></p>	<p>Entities perform restaking activities on behalf of blockchain base layer token owners or liquid staking token owners. The Liquid Restaking entities, for a fee, deposit the relevant tokens into restaking smart contract protocols which are used for the purpose of securing protocols or platforms other than the native blockchain.¹² The Liquid Restaking entities provide to such owners certificate tokens representing their assets. These certificate tokens or liquid restaking tokens can in turn be traded or used by those owners for additional purposes that accrue value for the beneficial owner. The beneficial owner in a liquid restaking scenario has the benefit of multiplying their returns by receiving benefits from the base layer blockchain staking, any restaking and any liquid restaking token activities.</p> <p>Liquid restaking is not protocol staking (i.e. base layer blockchain validation).</p>

The total staking market for Ether, the largest proof of stake blockchain, as at February 7, 2025 was US \$254 billion, according to [Coinbase](#). The vast majority of Ether, however, remains unstaked with only approximately 28% or US \$70 billion of eligible Ether being staked as at February 7, 2025 (according to [Coinbase](#)). Some estimates put the market capitalization for proof of stake blockchains at approximately US \$571 billion,¹³ although it is hard to quantify the total market capitalization amount of every proof of stake blockchain in existence. The total value locked in Lido, the largest Ether liquid staking protocol, is approximately US \$25.67 billion as at February 7, 2025, up from US \$22.57 billion the

¹⁰ See description of pooled security via restaking contained in EigenLayer White Paper (EigenLayer Team, [EigenLayer: The Restaking Collective](#)).

¹¹ See, the Morpheus Whitepaper – Morpheus, Trinity and Leo, [Morpheus: A Network for Powering Smart Agents](#) (September 2, 2023). The Morpheus launch occurred in February 2024 so this form of restaking is very new. In fact, the Morpheus Whitepaper does not refer to the method of capital provision using stETH as restaking, however the description in the whitepaper is similar to commonly known descriptions of restaking.

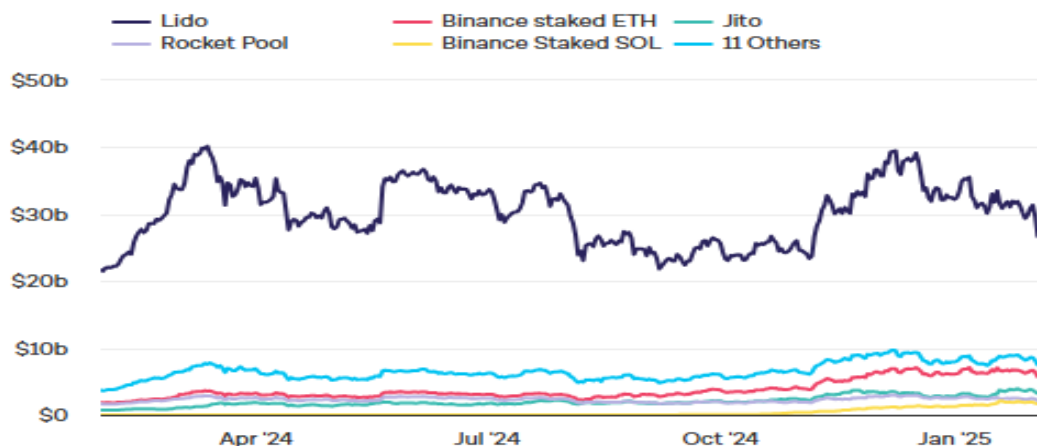
¹² Kessler, Sam, [What Is Restaking? What Is Liquid Restaking? What Is EigenLayer?](#) CoinDesk (May 2, 2024).

¹³ See CoinGecko, [Top Crypto Categories By Market Cap](#) data (page last viewed February 7, 2025).

year before, but down from its high of US\$ 40.17 billion reached on March 13, 2024, in each case as shown in the chart below from The Block.



Value Locked in Liquid Staking



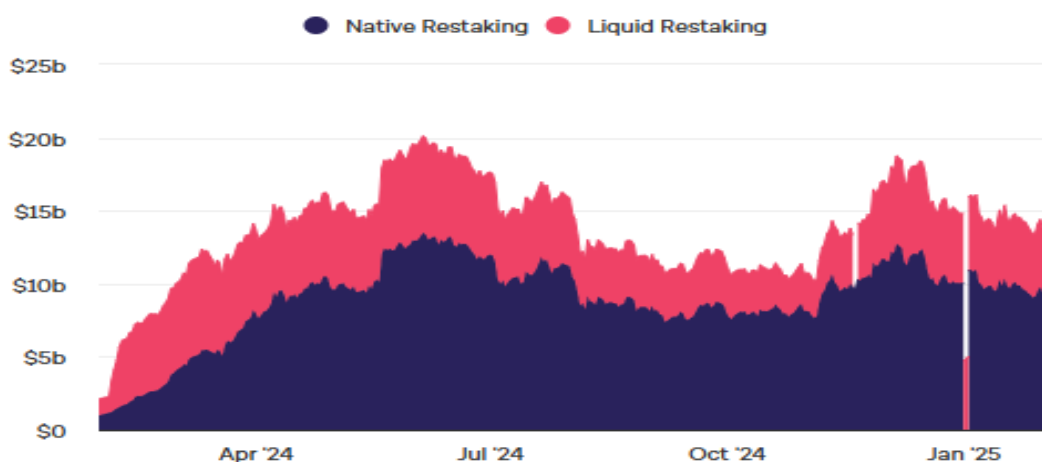
Source: [The Block](#) and DeFiLlama

Updated: February 7, 2025

EigenLayer, the main restaking platform, grew to over US \$16 billion in deposits in just a year to May 2024¹⁴ and as at February 6, 2025, stood at approximately US \$11.85 billion (although in June 2024 it rose to as high as US \$20.11 billion) as shown in the chart below divided into restaking (or native asset restaking) and liquid restaking.



EigenLayer Total Value Locked by Restaking Type



Source: [The Block](#)

Updated: February 7, 2025

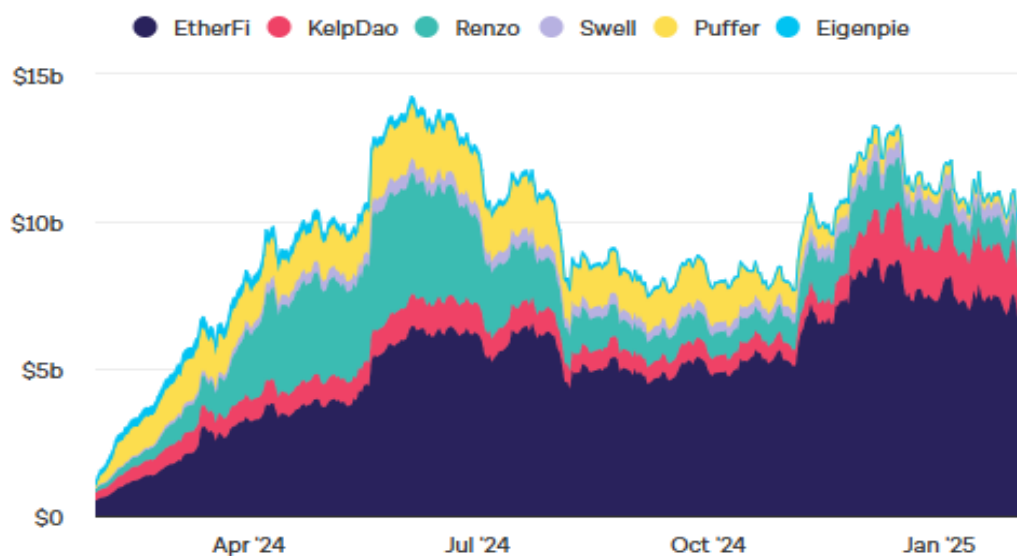
¹⁴ *Supra* at note 12.



Total Liquid Restaking on Ethereum stood at approximately US \$8.80 billion as at February 6, 2025, up from US \$2.04 billion the year prior, as shown in the chart below.



Ethereum Liquid Restaking Total Value Locked



Source: [The Block](#)

Updated: February 7, 2025



Section III: Risks

A. Protocol Staking Risks

There are a number of risks associated with protocol staking activity. A major potential risk is slashing, where a validator loses a portion of its staked tokens for non-compliance with the blockchain's rules.¹⁵ Slashing typically arises from failures such as double signing, where a validator signs (validates) two conflicting blocks of data to add to the same level of a blockchain's historical record, or prolonged downtime, where a validator fails to participate in the consensus process. These failures are identified through automated monitoring systems and consensus protocols that detect deviations from expected behavior, triggering automatic penalties. Slashing results in a permanent loss of a portion of staked assets as a penalty for a validator's negligent non-performance of, or malfeasance relating to, its responsibility of confirming blocks of transactions on the network, activities which are essential to maintaining the blockchain. Slashing is encoded into the staking mechanism and occurs automatically when a trigger event occurs. While slashing is a risk, it is rare.¹⁶ If slashing occurs, it will be visible on the blockchain. It would be expected that any staking provider will notify token owners of slashing events that affect their tokens.

There are also risks relating to unbonding/lockup periods for staking. Staked assets are not available for sale or transfer until they are unstaked. However, requests to unstake one's assets do not provide immediate access to those assets for the token owner. Proof-of-stake blockchains have unbonding periods, i.e. the amount of time it takes to remove the staked assets from the blockchain's validation process and make them available to the token owner. Examples of blockchains with unbonding periods include:

- Ethereum, where the time varies depending on how many validators are seeking to unstake at the same time; it could take between 3.5 days and up to a few weeks or months.¹⁷
- Solana is usually 2 to 4 days; however, the Solana Foundation imposes a cap on the number of tokens that can be unstaked within a prescribed 2-day period, whereby no more than 25% of total active staked tokens on the network can be unstaked during that time.¹⁸
- Some proof of stake blockchains, like Algorand do not have lockup periods.¹⁹

The risks associated with this inability to promptly liquidate would be particularly acute where the price of a token is tumbling fast. In a situation like this, unbonding periods will likely inhibit a token owner from being able exit its position in the token in order to sufficiently mitigate losses related to that token.

There are other risks not specific to staking, but rather general risks that impact blockchains; these risks will not be discussed in detail in this paper in order to focus on risks specific to staking and related activities. Such other risks include forking (when a majority of the community of validators or nodes running the blockchain decide to create an alternate blockchain); the ability of a rogue validator²⁰ (or a bad actor external to the blockchain's ecosystem) to manipulate a flaw in the code of the blockchain to the detriment of the blockchain; the possibility of a 51% attack (where an entity or related entities control more than 50% of a blockchain and in doing so can direct the blockchain according to their wishes, potentially to the detriment of other uses of the blockchain) and inadvertent transfers to wrong addresses

¹⁵ Although the vast majority of staking activity occurs on the Ethereum blockchain which has slashing as a feature, there are other proof of stake blockchains like Avalanche and Algorand that do not have slashing as a feature (See Avalanche, [Proof of Stake: A Beginner's Guide to Blockchain Consensus and Validation](#) (last viewed February 7, 2025) and Algorand Foundation, [Algorand Rolls Out Crypto's Most Inclusive Staking Rewards Program](#), PR Newswire (January 23, 2025)).

¹⁶ The European Banking Authority and European Securities and Markets Authority also recognized in their January 2025 [Joint Report on Recent Developments in Crypto Assets \(Article 142 of MiCAR\)](#) that slashing does not appear to be a frequent occurrence.

¹⁷ See Ethereum.org, [Staking Withdrawals: Exiting Staking Entirely](#) (page last viewed February 7, 2025) and Coinbase, [Ethereum \(Eth\) Staking Guide on Coinbase Prime](#) (page last viewed February 7, 2025).

¹⁸ See Solana Foundation, [Staking and Inflation FAQs](#) (page last viewed February 7, 2025) and Coinbase, [Solana \(SOL\) Staking Guide on Coinbase Prime](#) (page last viewed February 7, 2025).

¹⁹ See Algorand Foundation, [Algorand Rolls Out Crypto's Most Inclusive Staking Rewards Program](#) (November 8, 2024) and Algorand Foundation, [Staking Rewards Have Arrived on Algorand](#) (page last viewed on February 7, 2025).

²⁰ See e.g. [USA v. Anton Peraire-Bueno and James Peraire-Bueno](#), No. 24 Crim. 293 (S.D.N.Y. May 15, 2024) which is an example of a rogue validator's activity.



(given the immutability of a blockchain, once a transfer is complete, it cannot be undone, even if it is ultimately discovered to have been erroneously done).

B. Yield/Earn Program, Liquid Staking and Restaking Related Risks

Risks related to further delays in accessing tokens: Where another entity performs blockchain validator activity on behalf of a token owner, the token owner may also be subject to an additional administrative delay in accessing its tokens imposed by that other entity. These lockup periods present risks to holders that they will not have immediate access to their assets when needed. As mentioned above, the risks associated with an inability to promptly liquidate assets would be particularly acute if the price of a token crashes - the restrictions around access might inhibit a token owner from being able to promptly exit its position in the token in the event that the token owner wants to mitigate losses related to that token.

Risk of loss arising from third parties: This risk arises where the control of tokens is turned over to a third party by the beneficial owner of the tokens, for example, in the case of Pooled Yield/Earn Programs. Although the beneficial owner may maintain title to the tokens, there is a multilayered lack of control by the beneficial owner over the tokens while the delegee is in possession of the tokens and further while the tokens are locked in a blockchain network and actively being staked by the delegee. In addition to the risks described above relating to unbonding/lockup periods, if the relevant delegee experiences financial difficulties and enters into insolvency or bankruptcy proceedings, a beneficial owner could lose access to its tokens, potentially forever.

Additional risks related Liquid Staking and Restaking: In Liquid Staking and Liquid Restaking scenarios, where bearer receipt tokens (evidencing ownership of staked tokens that are locked up for staking purposes or restaking tokens) are used for other purposes, for example as collateral for loans in a DeFi protocol, the slashing of a token (or a significant decrease in value of a token) could have destabilizing effects given that some or all of the underlying assets that form the bases for such collateral are no longer in existence (or have decreased in value). These are in some ways similar to risks related to rehypothecation in traditional financial services markets. For example, in a situation where liquid staking or liquid restaking tokens are used as collateral for loans, the slashing of the underlying tokens may prompt an immediate margin call or close-out of the loan by liquidating the remaining collateral. This could potentially destabilize the market in a way similar to the way equity markets were destabilized between August 1st and August 5th, 2024, after the Bank of Japan raised interest rates, triggering the unraveling of Yen carry trades²¹ which included the selling of equities to repatriate Japanese Yen used to invest in higher yielding overseas assets, including equities, denominated in other currencies.

Furthermore, where tokens are slashed on the base blockchain layer, it has the potential to cause some destabilization of the restaking protocols whose collateral are the tokens that have been slashed and could cause an unraveling of the relevant restaking protocol depending on the significance of the slashing event or events. There are also questions around what could happen to the underlying blockchain tokens if something happens in a liquid restaking protocol which causes a devaluation of associated liquid restaking tokens. For example, if liquid restaking tokens or liquid staking tokens themselves are slashed, would this have an effect on the value of the underlying blockchain tokens?

In addition, the repeated use of the same collateral (i.e. tokens staked on a main blockchain) in Liquid Staking and Restaking scenarios increases the interconnectedness of the crypto ecosystem such that a problem that arises in one protocol could result in contagion of other protocols.

Lastly, as with any platform that relies on coding, there are risks related to coding errors. If the code has bugs or other vulnerabilities, then the staking protocol would not achieve the desired result or could otherwise be subject to manipulation.

²¹ Cembalest, Michael, [Eye on the Market](#), J.P. Morgan (August 6, 2024).



Section IV: Proposed Staking Regulatory Treatment

The US Financial Innovation and Technology for the 21st Century Act (the “FIT Act”) passed through the US House of Representatives in May 2024, however the US Senate did not vote on it before the end of the 118th Congress on January 3, 2025, so the FIT Act did not become law. Nevertheless, the bill provides a foundation on which the 119th Congress could work to repropose a new bill that could pass both houses of Congress (and that a crypto friendly President Trump could sign). Although the FIT Act referred to the technical activity of validating transactions on a blockchain and included some provisions to enable this activity, a new bill will provide an opportunity to include detailed provisions dealing with the various types of activities currently described as staking by market participants. In the UK, the Financial Services and Markets Act 2023 (“FSMA 2023”) does not specifically mention staking or give any indication as to how the activities that fall under the staking umbrella might be treated in any future regulatory framework, however, since FSMA 2023 became law, HM Treasury has recognized that there is no clear definition of staking and that there are many activities that may be referred to or marketed as staking.²² The FCA has also acknowledged that there is no standard industry terminology to define staking and that “there are a broad range of models that use the language of staking...”²³ However, the FCA is only expected to seek feedback from the public on staking sometime in the first half of 2025, and it is not expected to publish a formal consultation paper on regulating staking until the fourth quarter of 2025 or the first quarter of 2026.²⁴ It is imperative that any future digital assets regulation in the US and UK clearly distinguish between activities currently called staking and clarify the regulatory treatment of each such activity, ideally with a regime that is narrowly tailored to the risks posed by such activities and that does not act, intentionally or inadvertently, to stifle innovation.

The discussion below contains proposals for how staking could be treated in the US and UK from a financial services regulatory perspective in addition to compliance with applicable anti-money laundering, countering the financing of terrorism and sanctions requirements.

A. *Self (Solo) Protocol Staking and Delegated Protocol Staking*

This type of staking activity, when not part of a business, lends itself to not being subject to any unique or *sui generis* financial services regulation in any jurisdiction, other than laws against fraud and manipulation, given that the individual or entity is using its own proprietary capital to engage in maintaining a network.

In the UK, HM Treasury has stated that it considers that the specific process of operating a validator node using on-chain staked cryptoassets would generally constitute a technical function essential to the operational activities and security of a proof of stake blockchain, rather than a financial services activity.²⁵ The Economic Secretary to HM Treasury in November 2024 publicly acknowledged the uncertainty over staking services and whether they constitute a collective investment scheme which is regulated by the FCA.²⁶ The Secretary acknowledged that treatment as a collective investment scheme does not make sense and confirmed that the UK government “intends to proceed with removing this legal uncertainty accordingly.”²⁷ This view was formalized by a statutory instrument put before the UK parliament that came into force on January 31, 2025²⁸ and seeks to exclude arrangements in cryptoasset staking (the validation of transactions on a blockchain or distributed ledger technology network) from collective investment scheme requirements.

²² See paragraph 12.15 of the HM Treasury Response of HM Treasury, [Future financial services regulatory regime for cryptoassets: Response to the consultation and call for evidence](#) (October 2023) (“HM Treasury Response”).

²³ See paragraph 2.62 of Financial Conduct Authority [FG23/3: Finalised Non-Handbook Guidance on Cryptoasset Financial Promotions](#) (November 2023).

²⁴ Financial Conduct Authority, [Crypto Roadmap](#) (November 2024).

²⁵ See paragraph 12.19 of the [HM Treasury Response](#).

²⁶ HM Treasury and Siddiq, Tulip MP, [Keynote Address at the Tokenisation Summit: UK Government Approach to Tokenisation and Regulation](#) (25 November 2024).

²⁷ *Id.*

²⁸ [The Financial Services and Markets Act 2000 \(Collective Investment Schemes\) \(Amendment\) Order 2025](#) (“FSMA Order 2025”)



It is important for the sake of clarity that views around keeping the purely technical activity of protocol staking outside of the remit of collective investment scheme regulation are incorporated into regulation in the UK as well as in the US. Furthermore, given the acknowledged wide use of the term ‘staking’ for a range of activities in the market, it will be important for there to be defined terms in regulation to deal with all these different activities and to make it clear what activities are excluded from regulation and what activities are not. For the activities not excluded from financial services regulation, it will be important to specify exactly how such regulatory requirements could feasibly apply. While the UK has put forward a formal statutory instrument to provide for such exclusion of technical activity, as discussed below in Section IV C. Pooled Yield/Earn Programs below, the vagueness of some language used in the exclusion raises questions around its application and potential unintended consequences.

To the extent that an individual or entity engaged in Self (Solo) Protocol Staking is receiving capital from others to purchase the tokens needed to engage in staking, then such individual or entity could be subject to applicable existing laws and regulation around the pooling of assets of others for investment purposes, including the Investment Company Act of 1940 in the US and the UK FCA’s collective investment scheme (COLL) requirements. Furthermore, where a Delegated Protocol Staking (Custodial) provider takes custody of tokens as described above in Section II. C., requirements to ensure that assets are custodied appropriately and segregation requirements should apply also. See Section IV. G. below for further discussion on custody.

B. Delegated Protocol Staking via a Service Provider

UK: As described above in Section II. B., a staking-as-a-service provider simply provides a technical platform or infrastructure that enables individuals/other entities to stake their tokens and does not take custody of a beneficial owner’s tokens.

The platform provider in the staking-as-a-service scenario should not be subject to any unique or *sui generis* financial services regulation solely for providing such infrastructure, although such services may fall within scope of existing financial services regulation. The relevant provider could be designated as a “critical third party” (as such term is defined in FSMA 2023) and supervised accordingly to the extent that in HM Treasury’s opinion a failure in, or disruption to, the provision of those services (either individually or, where more than one service is provided, taken together) could threaten the stability of, or confidence in, the UK financial system. Attention to critical third parties is of increased importance in the aftermath of the disruption to banks, airlines, health services and others in July 2024 caused by CrowdStrike, a third-party provider of cyber security services to entities around the world.²⁹ It is important to note that HM Treasury has signaled its intent to introduce a regulatory regime which may ensure operating a staking platform is outside the collective investment scheme rules.³⁰ As above, to the extent that such services are to be regulated, the preference would be for a comprehensive tailored regime that takes into account the intricacies of blockchain staking-related services, and which pays attention to enhancing the UK’s competitiveness as a digital assets hub, rather than leaving such services to fall within any existing requirements.

US: The platform provider in the staking-as-a-service scenario should not be subject to any unique or *sui generis* financial services regulation. However, in the US, if in the future traditional financial services organizations subject to the supervision of the federal banking regulators are truly permitted to engage in staking and/or other cryptoasset activities³¹, and use staking-as-a-service providers, the provider may be required to adhere to additional guidelines and requirements like the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Comptroller of the

²⁹ Fitch, Asa, Schechner, Sam and Needleman, Sarah E., [The Software Patch That Shook the World](#), The Wall Street Journal (July 20, 2024).

³⁰ See paragraph 12.21 of the [HM Treasury Response](#).

³¹ Although the US Office of the Comptroller of the Currency has provided guidance that banks it supervises may act as validator nodes and engage in other cryptoasset related activity (see e.g. Office of the Comptroller of the Currency, [OCC Chief Counsel’s Interpretation on National Bank and Federal Savings Association Authority to Use Independent Node Verification Networks and Stablecoins for Payment](#) (Interpretive Letter 1174) (Jan. 2021) and Office of the Comptroller of the Currency, [Chief Counsel’s Interpretation Clarifying: \(1\) Authority of a Bank to Engage in Certain Cryptocurrency Activities; and \(2\) Authority of the OCC to Charter a National Trust Bank](#) (Interpretive Letter 1179) (Nov. 2021)), letters from the Federal Deposit Insurance Corporation to banks it supervises in relation to cryptoasset activities reveal that the FDIC asked them in some cases to “pause all cryptoasset-related activity” and in some others to “not expand the service to additional customers” or “not to proceed with planned activities” (See [FDIC Redacted Pause Letters January 3, 2025](#), History Associates v. FDIC (D.D.C 2024) (No. 1: 24-cv-1857-ACR)).



Currency [Interagency Guidance on Third-Party Relationships: Risk Management](#) to mitigate financial stability and other risks posed by third-party service providers to financial services organizations.

C. Pooled Yield/Earn Programs

UK: The pool of assets created as a result of this type of activity might ordinarily be classified as a collective investment scheme under the Financial Services and Markets Act 2000 (“FSMA”).³² The FCA acknowledges in its guidance on cryptoasset financial promotions that there is no standard industry terminology to define staking, that “there are a broad range of models that use the language of staking...” and that firms should consider whether their staking models today may fall within the definition of a collective investment scheme.³³ Pursuant to FSMA, a collective investment scheme is “any arrangement with respect to property of any description, including money, the purpose or effect of which is to enable [any person to take] part in the arrangements (whether by becoming owners of the property or any part of it or otherwise) to participate in or receive profits or income arising from the acquisition, holding, management or disposal of the property or sums paid out of such profits or income.”

HM Treasury also recognizes that there is no clear definition of staking and that there are many activities that may be referred to or marketed as staking.³⁴ However, as noted by HM Treasury in its October 2023 Response to comments on its future financial services regulatory regime for cryptoassets,³⁵ it would not be appropriate to regulate pools of staked assets in the same way as traditional collective investment schemes. Nevertheless, it is important to note that HM Treasury’s description of pooled staking focuses solely on the deployment of tokens on blockchains, the purely technical activity and does not describe other types of activity currently commonly called staking or compared to staking in the cryptoassets market, including Pooled Yield/Earn Programs. Furthermore, on January 9, 2025, HM Treasury introduced an amendment to FSMA which took effect on January 31, 2025³⁶ and which excludes arrangements in cryptoasset staking (the validation of transactions on a blockchain or distributed ledger technology network) from collective investment scheme requirements. However, the use of the term “arrangements” in the statutory instrument is vague and raises questions as to the extent of the “arrangements”, other than technical plain vanilla validation activities, that could be excluded pursuant to FSMA Order 2025. Could there arise situations where the utilization of the relief provided by FSMA Order 2025 runs counter to the regulatory principle of ‘same risk, same regulatory outcome’³⁷? For example, could it leave open the possibility that a pooling of instruments that fall under the definition of both “financial instrument”³⁸ and “cryptoasset”³⁹ and part of the management of the pool includes using the instruments in blockchain validation, would be excluded in its entirety (i.e. both the blockchain validation and the non-blockchain validation related aspects of the arrangement), whereas an analogous activity involving a non-cryptoasset financial instrument would not be so excluded? It may be prudent for HM Treasury and/or the FCA to provide additional clarification on this point and make it clear that the exclusion relates only to blockchain (or distributed ledger technology) validation and those services necessary to complete the validation, as opposed to leaving it vague.

It is also important to note that although the FCA currently classifies the vast majority of cryptoassets (by market capitalization) currently in circulation, e.g. Bitcoin, Ether, Litecoin, as unregulated tokens that are outside the FCA’s regulatory perimeter, the regulator recognizes that there are certain cryptoassets which it defines as ‘security tokens’

³² See [Section 235 \(Collective Investment Schemes\)](#) of the Financial Services and Markets Act 2000.

³³ See paragraph 2.62 of Financial Conduct Authority [FG23/3: Finalised Non-Handbook Guidance on Cryptoasset Financial Promotions](#) (November 2023).

³⁴ See paragraph 12.15 of the [HM Treasury Response](#).

³⁵ See paragraph 12.21 of the [HM Treasury Response](#).

³⁶ [The Financial Services and Markets Act 2000 \(Collective Investment Schemes\) \(Amendment\) Order 2025](#) (“FSMA Order 2025”)

³⁷ See Section 1.12 of HM Treasury, [Future Financial Services Regulatory Regime for Cryptoassets: Consultation and Call for Evidence](#) (February 2023).

³⁸ See [FCA Handbook, Glossary definition of financial instrument](#) (last viewed February 7, 2025).

³⁹ See [FCA Handbook, Glossary definition of cryptoasset](#) (last viewed February 7, 2025).



(those that provide rights such as ownership or a share in future profits) and ‘e-money tokens’ that are already subject to the FCA’s existing regulatory framework.⁴⁰

To the extent that cryptoassets classified as security tokens or e-money tokens by the FCA are used for pooled yield/earn program activity, certain activities relating to the tokens, for example the original issuance of the tokens used in the pooling activity and the actual pooling activity, may have to comply with existing rules on such activity, with appropriate modifications to take into consideration the blockchain technology underpinning the assets, even though the strictly technical nature of any actual staking process, i.e. validation activities on the relevant blockchain, is not expected to be regulated as a financial services activity. Given the acknowledged lack of clarity on the subject of staking and the nuances around the classification of the different types of cryptoassets, as well as the ambiguity around the “arrangements” that are excluded pursuant to The Financial Services and Markets Act 2000 (Collective Investment Schemes) (Amendment) Order 2025 discussed above, it would be important for a tailored regulatory regime (with cross-references to other existing regulation that captures aspects of the activities, as appropriate) to be introduced that clarifies this. For those activities involving cryptoassets that are also financial instruments, it would be important for this tailored regime to take into account the unique features and risk profile of these programs and activities more generally, such as lockup periods, slashing penalties, and the governance and transparency of the underlying blockchain networks. The FCA would need to ensure that, in implementing appropriate regulations, its new secondary objectives (contained in the amendments to FSMA set out in the Financial Services and Markets Act 2023) relating to facilitating international competitiveness and growth are also taken into account.

US: The SEC has in the recent past sued large centralized crypto market participants alleging that the programs (often misclassified as staking), which involved pooling customer assets to satisfy protocol minimum requirements, smoothing rewards, using funds for lending or other activities, not aligning with protocol bonding and unbonding periods, and promised specific returns were violations of securities laws, alleging that such programs were unregistered offers and sales of securities.⁴¹ The SEC has also alleged that intermediaries facilitating consumer access to these staking programs are acting as brokers of securities transactions and therefore subject to SEC registration requirements as such.⁴²

While it is important to analyze each individual program, the more a program offers services and rewards that differ from the underlying protocol rules, the more the program can look like an investment contract. Using funds collected for purposes other than protocol staking – e.g., lending – falls within the ambit of a securities offering.

It is worth noting that the Internal Revenue Service (“IRS”) has finalized requirements for digital assets brokers and in doing so specified exclusions from the digital assets broker requirements. The IRS excludes from its requirements entities that are engaged in “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”.⁴³ It would be important for there to be consistency across federal regulators, including the SEC, and for it to be clear that engaging in these sorts of activities does not make an entity or individual performing such activities on behalf of another a broker.

It is important to note that, where applicable, the SEC has alleged that the ‘staking’ program itself – the way it is structured and offered – and not necessarily the relevant tokens that are staked, constitute the securities offering at issue and thus would be subject to the disclosure and other requirements required under the US Securities Acts and SEC regulations.

It is also important to note that the afore-referenced SEC staking enforcement actions took place under the Biden Administration. The SEC under the new Trump Administration has set up a crypto task force which is being led by

⁴⁰ See Financial Conduct Authority [PS 19/22 Guidance on Cryptoassets](#) (July 2019) and Financial Conduct Authority Cryptoassets: [Our Work: How We Define Cryptoassets](#) (last updated May 3, 2024).

⁴¹ See e.g. [SEC v. Payward Ventures Inc. \(D/B/A Kraken\) et. al.](#), No. 23-Cv. 588 (N.D. Cal. Feb. 9, 2023), [SEC v. Coinbase Inc and Coinbase Global, Inc.](#), No. 23 Civ. 4738 (S.D.N.Y. March 24, 2024) and [SEC v. Consensys Software, Inc.](#), No. 24 Civ. 4578 (E.D.N.Y. June 28, 2024).

⁴² See e.g. [SEC v. Consensys Software, Inc.](#), No. 24 Civ. 4578 (E.D.N.Y. June 28, 2024).

⁴³ See 26 CFR 1.6045-1(a)(21)(iii)(B) and Department of Treasury, Final Regulations: [Gross Proceeds Reporting by Brokers that Regularly Provide Services Effectuating Digital Asset Sales](#) (December 27, 2024). See also Geraghty, Tom, [Digital Asset Broker Tax Reporting Rules for DeFi Participants Finalized](#), DLA Piper (January 28, 2025).



Commissioner Hester Peirce, a commissioner who has been critical of the SEC's hostility towards the crypto sector, and who admonished the SEC in one of her dissents critical of the SEC's enforcement action against a pooled staking provider that: "[i]nstead of taking the path of thinking through staking programs and issuing guidance, we again chose to speak through an enforcement action. Using enforcement actions to tell people what the law is in an emerging industry is not an efficient or fair way of regulating."⁴⁴ Commissioner Peirce's Crypto Task Force and in general, an SEC under incoming Chair Paul Atkins will take a pro-innovation stance that is also pro-investor protection. Commissioner Pierce's own statements since becoming chair of the new SEC Crypto Task Force put this more pro-innovation, more collegial SEC on display.⁴⁵

D. Liquid Staking

UK: Liquid Staking, where the token owner transfers its tokens to an entity for delegated protocol staking or yield/earn programs, and receives liquid staking tokens evidencing the value of the staked tokens and which can be used for other purposes, could be subject to the same regulatory treatment as the underlying staking activity, i.e. delegated protocol staking or yield/earn programs, depending on the nature and terms of the arrangement. If the delegated protocol staking or yield/earn program activities are regulated when performed separately (as per the discussion above), they are likely to be subject to equivalent regulation when performed in the context of a liquid staking program. The issuance and use of liquid staking tokens could also raise additional regulatory issues, such as whether those tokens constitute transferable securities, e-money, payment services, or other regulated activities under FSMA or FSMA 2023, depending on their features and functions. For example, if the liquid staking tokens are issued by a centralized entity and can be redeemed for the original tokens or fiat currency, they could be considered e-money and subject to the Electronic Money Regulations 2011 depending on the nature of the original token. Conversely, they might instead constitute derivatives of the original token depending on the nature of the original token. If the liquid staking tokens are issued by a decentralized protocol and can be used as a means of payment or exchange on various platforms, this could be considered payment services and subject to the Payment Services Regulations 2017 where the execution of the token transfer is achieved through the agency of an intermediary actor as a payment service provider. If the execution of token transfers is effected on an automated basis (e.g. using smart contracts), there are arguments to suggest that this would not constitute payment services. If the liquid staking tokens are issued by a third party and can be traded or exchanged for other tokens or assets, they could be considered transferable securities and subject to regulation under FSMA, including obligations pursuant to [The Public Offers and Admissions to Trading Regulations 2024](#).

As above, the preference would be for a tailored regime to cater for liquid staking tokens and their specific features, such as the liquidity, volatility, and security of the liquid tokens, the interoperability and compatibility of the underlying blockchain networks, and the potential systemic or market implications of activities related to them.

US: Where a liquid staking token issuer issues liquid staking tokens to a token owner of an underlying staked token upon receipt of that owner's tokens, this activity could be considered similar to yield/earn programs described above and thus some of the same issues as highlighted in Section IV. C. Pooled Yield/Earn Programs above arise in this context where the program itself could be an investment contract and thus a security subject to the rules and regulations of the SEC. It is important to note that the underlying technical activity of securing the relevant underlying blockchain is a separate activity from any pooling of resources (which could be done for staking and other purposes) by the liquid staking token issuer. Alternatively, given that the Commodity Futures Trading Commission ("CFTC") has also long held that cryptocurrencies are commodities⁴⁶, and liquid staking tokens could be considered derivatives because the value of a liquid staking token is linked to the underlying cryptocurrencies, it is not inconceivable that liquid staking token markets could be subject to the jurisdiction of the CFTC. The line between SEC and CFTC jurisdiction over the digital assets market will ultimately need to be drawn by Congress.

Nevertheless, where a token owner deposits its tokens into a smart contract himself, and in return automatically receives liquid staking tokens which the owner can use for other purposes, considerations for this activity should be similar to

⁴⁴ Peirce, Hester, [Kraken Down: Statement on SEC v. Payward Ventures, Inc.](#), et al. (Feb. 9, 2023).

⁴⁵ See, Peirce, Hester, [The Journey Begins](#) (Feb. 4, 2025).

⁴⁶ See e.g. [In the Matter of Coinflip, Inc., d/b/a Derivabit and Francisco Riordan](#) (CFTC No. 15-29) (Sept. 17, 2015).



those relating to Self (Solo) Staking described in Section IV. A. above and should not have any financial services requirements imposed on this activity in the US and UK, other than laws against fraud and manipulation.

E. Restaking

As described in Section II, Restaking involves the use of smart contracts, so prior to discussing the relevant proposed regulatory treatment, it would be worth discussing the concept of a smart contract.

Just like many other terms used in the digital assets space, over time, what has developed is that there is no uniformity in the use of the term ‘smart contract’. The term ‘smart contract’, generally speaking, refers to pieces of computer code which enable the automatic execution of a function based on a predetermined set of criteria being met, and like many terms used in the digital assets sector is a misnomer.

It is worth noting, however, that the contractual status of smart contracts is open to debate – i.e. whether they constitute contracts in the legal sense, or simply a set of algorithms and automated rules (that may be memorialized in an associated set of written contractual terms).

The work of the lawyer, Josh Stark, cited by the global derivatives trading body, the International Swaps and Derivatives Association (ISDA) in its informative whitepaper on smart contracts and distributed ledgers, does a good job in trying to articulate the different viewpoints presented when the term ‘smart contract’ is used. Stark and ISDA highlight two interpretations of smart contracts: smart legal contracts (where elements of legal contracts are represented and executed by software) and smart contract code (where code is designed to execute specific predetermined tasks where predefined conditions are met).⁴⁷ ISDA highlights the relationship between the two concepts indicating that smart legal contracts are made up of smart contract code within an overarching relationship that creates legally enforceable rights.⁴⁸

In the US, generally, a contract is an agreement that is legally binding and enforceable in a court of law, which will hinge upon whether the common law requirements of offer, acceptance and bargained for consideration are present.⁴⁹ However, smart contracts as used in the digital assets world comprise a series of algorithms that execute preprogrammed actions (like making a payment) when predetermined conditions embedded in the computer code relating to the smart contract are satisfied.

The term ‘smart contract’ predates the advent of Bitcoin. It was coined by computer scientist Nick Szabo in 1994. According to Szabo, “a smart contract is a computerized transaction protocol that executes the terms of a contract.”⁵⁰ New York State, whose law, alongside the law of England and Wales, governs trillions of dollars in global financial contracts, has had pending in its Senate since 2017 a bill which seeks to define what a smart contract is and ensure that there would be no negative treatment of smart contracts under New York law. The most recent publicly available version of the bill, Assembly Bill 2643, defines a smart contract as “an event-driven program that runs on a distributed, decentralized shared and replicated ledger and that can take custody over and instruct transfer of assets on that ledger” and mandates that contracts “may not be denied legal effect, validity or enforceability solely because that contract contains a smart contract term.”⁵¹ In November 2024, the United States Court of Appeals for the Fifth Circuit, a federal court that sits directly below the US Supreme Court, issued a ruling in relation to an appeal against the 2022 sanctions imposed on the crypto mixer, Tornado Cash, by the US Treasury Department’s Office of Foreign Assets Control (“OFAC”) blocking use of its smart contracts.⁵² In the ruling, the Fifth Circuit recognized that the use of the term

⁴⁷ See Stark, Josh, [Making Sense of Blockchain Smart Contracts](#), CoinDesk (June 4, 2016, updated March 6, 2023) and International Swaps and Derivatives Association, Inc. and Linklaters LLP, [Smart Contracts and Distributed Ledger – A Legal Perspective](#) (August 2017).

⁴⁸ *Id.*

⁴⁹ See Levi, Stuart, D. and Lipton, Alex, B., [An Introduction to Smart Contracts and Their Potential and Inherent Limitations](#), Harvard Law School Forum on Corporate Governance (May 26, 2018).

⁵⁰ Szabo, Nick, [Smart Contracts](#) (1994) and Levi, Stuart, D. and Lipton, Alex, B., [An Introduction to Smart Contracts and Their Potential and Inherent Limitations](#), Harvard Law School Forum on Corporate Governance (May 26, 2018).

⁵¹ See 2023-2024 NY Senate – [Assembly Bill 2643](#).

⁵² [Loon et. al. v. Department of Treasury et. al.](#), No. 23-50669 (5th Cir. Nov. 26, 2024).



‘contract’ to identify the smart contracts at issue was misleading, and that they were in fact not contracts, rather they were “software”, “merely a code-enabled species of unilateral contracts”.⁵³

We can see from the original definition of smart contract by its creator, Nick Szabo, the definition that New York State seeks to adopt and the ruling of the Fifth Circuit Court of Appeals that a smart contract was meant to form a part of a legal contract and not necessarily encompass the entirety of a legal contract in and of itself. The smart contracts encompassed in the definition of Restaking and as otherwise referred to in this paper, would be akin to the above-referenced smart contract code, harkening back to the original Szabo concept of a smart contract.

UK: In the Restaking scenario where the token owner or the liquid staking token owner (or their agents) opts in to a smart contract protocol for the stake to be used to secure protocols other than the native blockchain or used for other purposes, this arrangement could be subject to the same regulatory treatment as the underlying activity, i.e. self (solo) protocol staking, delegated protocol staking, pooled yield/earn programs or liquid staking, depending on the nature and terms of the arrangement. However, the use of smart contracts to enable restaking could also raise additional regulatory issues, such as whether those smart contracts constitute contracts of difference, financial derivatives, or other regulated investments under FSMA or FSMA 2023, depending on their features and functions. For example, if the smart contracts allow the restaker to benefit from the price movements of the underlying tokens or protocols without owning or delivering them, they could be considered contracts of difference and subject to FSMA. If the smart contracts allow the restaker to hedge or speculate on the future value or performance of the underlying tokens or protocols, they could be considered financial derivatives and subject to FSMA and UK EMIR. As above, a tailored regime which takes into account the specific features and risks of these smart contracts would be preferable. In other cases, where a token owner simply deposits his/her tokens into a smart contract to be used for other legitimate purposes, this activity by the token owner should not be subject to any financial regulation.

US: Where a token owner deposits its tokens into a smart contract himself for restaking purposes, this activity is similar to the Self (Solo) Staking described in A. above and lends itself to not being subject to any unique financial services regulation, other than existing laws against fraud and manipulation. In other cases where agents perform activities on behalf of the token owner, the arrangement could be subject to the same regulatory treatment as the underlying activity, i.e. delegated protocol staking, pooled yield/earn programs or liquid staking.

F. Liquid Restaking

UK: Liquid Restaking, where entities perform restaking activities on behalf of blockchain base layer token owners or liquid staking token owners and provide them with certificate tokens or liquid restaking tokens that can be used for other purposes, this could be subject to the same regulatory treatment as the underlying staking and restaking activities, i.e. self (solo) protocol staking, delegated protocol staking, pooled yield/earn programs, liquid staking or restaking, depending on the nature and terms of the arrangement. The issuance and use of liquid restaking tokens could also raise the additional regulatory issues described in relation to liquid staking tokens above in D. Liquid Staking.

US: Where a Liquid Restaking entity, on behalf of a beneficial owner of a token, deposits the relevant tokens into restaking smart contract protocols to be used for the purpose of securing protocols other than the relevant token’s native blockchain together with the issuance of certificate tokens or liquid restaking tokens, which can in turn be traded or used for additional purposes that accrue value for the beneficial owner, these raise U.S. securities law issues (including whether the issuance of the liquid restaking tokens constitutes an offering of securities) and potentially U.S. commodities law issues. Furthermore, to the extent that the underlying tokens are deemed securities in and of themselves, this further strengthens the argument that the activity performed by the liquid restaking entity in collecting tokens and deploying them on behalf of beneficial owners is akin to an investment contract and thus a security pursuant to the Securities Act of 1933, as amended, as interpreted by the US Supreme Court in SEC v. Howey and its progeny.

⁵³ *Id.*



However, as highlighted below using custody as an example, the rules and regulations of the SEC need to be reviewed and updated to take into consideration the blockchain technology which functions differently from existing technology on which the existing financial system functions.

G. General Custody Considerations

There are many instances in which individuals self-custody their tokens, for example using wallets, storage devices developed by companies like MetaMask for the storage of cryptoassets. This is the traditional economy equivalent of keeping dollars, pounds and gold in a safe at home or another secure location (but not bank held safe deposit boxes). In these instances, as harsh as it may sound, individuals have the freedom to keep their assets as they see fit without intervention from laws or regulation, and if the assets are lost or individuals lose the pass keys, it would not be unfair to treat these individuals in the same way as individuals who self-custody their fiat currency or gold and not intervene to compensate for any losses, in keeping with the oft-repeated regulatory design principle ‘same risk, same regulatory outcome’.⁵⁴

However, for entities that provide custodial services as a business, it would be important for consumer protection purposes for rules around safeguarding those assets to apply in a way that ensures the same regulatory outcome as for traditional financial instruments, including segregating customer assets, ensuring bankruptcy remoteness so that customer assets are protected even if a custodian fails. It is worth noting, however, that it is not as simple as saying that the existing custody requirements that apply to traditional assets like non-tokenized stocks, bonds and cash could apply to the custody of digital assets. The nature of the distributed ledger technology underpinning digital assets makes custodying them technically different from traditional assets such that it requires a rethink about custody procedures and requirements. The difficulties around assessing security in relation to the custody for digital assets is something that the SEC encountered in the context of questions about how to apply the physical possession or control requirement of its Broker-Dealer Customer Protection Rule to digital assets.⁵⁵ The rule requires broker-dealers to promptly obtain and maintain physical possession or control of customer assets. However, given that control over digital assets is established by access to a private key (or alphanumeric code), it is possible that more than one person could have or obtain access (including unauthorized access) to the private key. There are other risks associated with distributed ledger technology, such as hard forks mentioned above in Section III.A. Protocol Staking Risks, and hacking risks that could affect control over the subject digital assets. The temporary relief (lasting five years from April 2021) provided by the SEC relating to the Broker-Dealer Customer Protection Rule requires that broker-dealers choose to custody either digital assets or traditional securities (they are not permitted to do both) and the SEC put in place a special purpose broker dealer regime for entities looking to be broker-dealers for digital assets.⁵⁶ So far, there seems to have been only two entities⁵⁷ that have taken advantage of this temporary relief and applied for the associated special purpose broker-dealer license indicating the limited utility of this special licensing regime. It is important that any future custody requirements not only take into consideration the novel technology and its risks in terms of crafting appropriate custody requirements but also ensure that any such new requirements have sufficient input from the industry to craft requirements that are business friendly and provide for sufficient competition in the market and consumer choice.

⁵⁴ See for example the [July 8, 2022 speech by Lael Brainard](#), Federal Reserve Vice Chair where she indicated that “Future financial resilience will be greatly enhanced if we ensure the regulatory perimeter encompasses the crypto financial system and reflects the principle of same risk, same disclosure, same regulatory outcome” and the [September 6, 2021 speech by Charles Randall](#), then Chair of the Financial Conduct Authority and Payment Systems Regulator where he indicated that “The tide of regulation is turning all over the world, and online platforms should expect a future where regulation addresses the significant risks they pose in the same way as other businesses. Same risk, same regulation.”

⁵⁵ See Securities and Exchange Commission, [Joint Staff Statement on Broker-Dealer Custody of Digital Asset Securities](#) (July 8, 2019) and Securities and Exchange Commission, [Custody of Digital Asset Securities by Special Purpose Broker-Dealers](#), SEC Release No. 34-90788 (April 27, 2021).

⁵⁶ *Id.*

⁵⁷ tZERO, [tZERO Receives Landmark Approval to Custody Digital Securities and Support End-to-End Digital Securities Lifecycle in the United States](#), PR Newswire (Sept. 10, 2024).



Section V: Conclusion

Standard nomenclature to describe many assets and activities within the blockchain and digital assets ecosystem is lacking. Legislative bodies and regulators trying to understand the nature of these assets and activities in some cases develop their own defined terms that themselves vary across jurisdictions or domestically among regulatory bodies. All this leads to unnecessary confusion that needs to be avoided in order to arrive at the right conclusion as to whether a particular activity should be regulated or not and if so, how to regulate it in a way that does not stifle innovation while also protecting consumers, promoting market integrity and mitigating financial stability risks. This paper aims to bring some clarity to the complicated subject of staking and associated activities that are not themselves the strict technical activity of protocol staking on a proof-of-stake blockchain. This paper also importantly discusses in some detail proposals for financial services regulatory treatment of these different activities that could form part of future pro-innovation comprehensive regulatory frameworks for digital assets in different jurisdictions.

The Digital Economy Initiative is an independent think tank dedicated to promoting effective public policy for cryptocurrencies and other digital economy applications. More information can be found at <https://www.digitaleconomyinitiative.org/>.