BUFFONE LAW GROUP PLLC

MEMORANDUM

TO:	Ayre Ventures
FROM:	Samuel J. Buffone, Jr., Partner, Buffone Law Group PLLC
DATE:	June 29, 2023
RE:	Potential Liability of Exchanges for Listing Ethereum 2.0 and Staking Programs Based on Securities Analysis Under *Howey*

EXECUTIVE SUMMARY

In late 2020, Ethereum's creators announced the launch of a new Ethereum network, Ethereum 2.0. This network ran alongside the existing Ethereum network (also known as the "Ethereum mainnet"), until the two were merged in the Paris upgrade on September 15, 2022. In order to launch the Ethereum 2.0 network, the creators required a certain threshold of users to stake 32 ETH each to the Ethereum 2.0 network and act as validators on the network. In exchange, the Ethereum Foundation promised a schedule of rewards to active validators. After they finalized the new network, they moved away from the Ethereum 2.0 nomenclature, calling the old Ethereum 1.0 the execution layer, the new Ethereum 2.0 the consensus layer, and referring to the two together as Ethereum.

In the wake of this announcement, multiple major cryptocurrency exchanges offered its customers the opportunity to stake ETH through the exchanges' trading platforms. Further, these exchanges offered their users the opportunity to stake less than the 32 ETH required to fund a validator. These exchanges appear to pool the staking assets of multiple users together to earn validator rewards as a collective.

Securities law has a long history of applicability to new and novel financial instruments. Therefore, this novel technology and financial instrument would most likely amount to an offer or sale of a security under United States law by the exchanges. As discussed below, the SEC has asserted this theory in multiple cases.

In short, there are several aspects of the exchanges' programs that would likely cause a court to agree with the SEC's position in multiple litigations and conclude that the entire process constitutes an investment contract and thus qualifies as a security that must be registered.

FACTUAL BACKGROUND

Part I provides an overview of Ethereum 2.0. Part II provides background on who is responsible for building out the Ethereum 2.0 network. Part III provides background on the Ethereum 2.0 staking programs tethered to the launch of the Ethereum 2.0 network.

I. Overview of Ethereum 2.0

Ethereum has undergone several phases of development. Ethereum 2.0 is the latest phase of Ethereum's development. The project is also known as Serenity, and launched an entirely new and separate blockchain network which ran alongside the existing Ethereum network.[1] Ethereum 2.0 incorporated a Proof of Stake (PoS) algorithm developed by Vitalik Buterin[2] and Vlad Zamfir,[3] known as "Casper," and a new scaling method to boost transaction throughput called sharding.[4]

Ethereum 2.0 had four different development stages, which would be managed by the Ethereum Foundation: (1) the rollout of Ethereum 2.0's Proof of Stake algorithm (Casper) through the Paris upgrade;[5] (2) the creation of shard chains for network scalability; (3) activation of smart contract execution; and (4) the implementation of miscellaneous tech to further optimize Ethereum 2.0.[6] The Capella upgrade in April 2023, for example, upgraded the consensus layer (Ethereum 2.0) to allow staking withdrawals, which allowed those stakers who did not provide withdrawal credentials with their initial deposit to now withdraw their funds.[7] The synchronous Shanghai upgrade brought staking withdrawals to the execution layer (Ethereum 1.0), and worked in tandem with the Capella upgrade in order to allow blocks to accept withdrawal operations.[8]

As explained by the Ethereum Foundation the term "Eth2" was "phased out in favor of more precise terminology," but the substance of the upgrades is the same.[9] The Ethereum Foundation had stated that the launch of the beacon chain would happen in the first phase, followed by the creation of shard chains (estimated to take place in 2021), and then the docking of the Ethereum blockchain on the Ethereum 2.0 beacon chain, which would allow a merger of the two networks. The Ethereum Foundation states that this phase was completed in September 2022.[10] The Ethereum Foundation represented that these upgrades were "necessary to unlock Ethereum's full potential."[11]

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[1] Kim, *Ethereum 2.0: How It Works and Why It Matters*, Coindesk (July 2020), at 6.
[2] Vitalik Buterin is the founder of Ethereum and the Ethereum Foundation.
[3] Vlad Zamfir is a researcher employed at the Ethereum Foundation. See *The Cointelegraph Top 100: Vlad Zamfir #70*, https://cointelegraph.com/top-people-in-crypto-and-blockchain/vlad-zamfir.
[4] Kim, *Ethereum 2.0: How It Works and Why It Matters*, supra note 1, at 6.
[5] *The history of Ethereum,* Ethereum Foundation, https://ethereum.org/en/history
[6] Kim, *Ethereum 2.0: How It Works and Why It Matters*, supra, at 7.
[7] *The history of Ethereum, supra* note 5..
[8] *Id.*
[9] *Ethereum Foundation Kills 'ETH 2.0' in Favor of 'Consensus Layer' Rebrand*, Decrypt (Jan. 24, 2022) https://decrypt.co/91149/ethereum-foundation-kills-eth-2-consensus-layer-rebrand..
[10] *The Beacon Chain*, Ethereum Foundation, https://ethereum.org/en/roadmap/beacon-chain/.
[11] The *ETH2 Vision: a digital future on a global scale*, Ethereum Foundation, https://ethereum.org/en/eth2/vision/.

The first phase of Serenity focused on activating Ethereum's new PoS system, Casper.[12] Casper was designed to replace the process of validating transactions via mining with a different validation process, validating via staking.[13] In this new system, when the Beacon Chain update was launched, users that wanted to serve as validators who earn rewards for helping secure the network and process transactions were required to deposit 32 Ethereum tokens (ETH) into a smart contract on the original Ethereum blockchain.[14] The two main roles of a validator are attesting to new blocks and proposing them.[15] Once a user staked the 32 ETH, an equal amount of ETH was then created on the Ethereum 2.0 beacon chain, which the user could put up as collateral to become a validator.[16] The ETH created on Ethereum 2.0 could not be sent back to the original Ethereum blockchain.[17] Rather, it lived on the Ethereum 2.0 blockchain until (i) the two systems were merged together in the Paris update in 2022, and (ii) unstaking was authorized in the Shanghai and Capella updates in April 2023.[18]

To trigger the launch of the first phase, buy-in was required from 16,384 validators, each staking 32 ETH (roughly $19,835/validator at the market price at the time of launch).[19] Individuals were allowed to run multiple validations, but each required locking up an increment of 32 ETH.[20] The total value secured on the system at the time of launch was over $325 million.[21] Once the contract hit the minimum threshold of 524,288 ETH (32 ETH x 16,384 validators), the contract launched the new Ethereum 2.0 network automatically at midnight UTC the following week. This occurred on December 1, 2020.[22]

Validators began earning rewards on their locked ETH shortly after launch in the form of annualized interest.[23] These rewards were distributed roughly every six minutes, which is the estimated amount of time needed to create a new block on the beacon chain.[24] Rewards were distributed directly into validators' accounts on Ethereum 2.0 for the validators that actively attest to or propose a block.[25] By some estimates, validators could expect to initially earn roughly 20%

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[12] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[13] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[14] *Stake Your ETH to become an Ethereum validator*, Ethereum Foundation, https://ethereum.org/en/eth2/staking/; Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[15] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[16] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[17] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[18] Coryanne Hicks, *Get Ready for Ethereum's Shanghai Upgrade*, Forbes Advisor (Apr. 13, 2023), https://www.forbes.com/advisor/investing/cryptocurrency/ethereum-shanghai-upgrade/#:~:text=The%20Shanghai%20Upgrade%20Aims%20to%20Boost%20Liquidity&text=To%20become%20a%20validator%2C%20users,is%20unidirectional%2C%E2%80%9D%20Ranjan%20says.
[19] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra*, at 9; Coindesk, Ethereum https://www.coindesk.com/price/ethereum (the price of a single ETH token on November 30, 2020 ranged from $576-$612/token).
[20] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[21] Nikhilesh De, Christine Kim, & Colin Harper, *Ethereum 2.0 Deposit Contract Secures Enough Funds to Launch*, Coindesk (Nov. 23, 2020), https://www.coindesk.com/eth-2-0-deposit-contract-secures-enough-funds-to-launch.
[22] Nikhilesh De, Christine Kim, & Colin Harper, *Ethereum 2.0 Deposit Contract Secures Enough Funds to Launch*, Coindesk (Nov. 23, 2020), https://www.coindesk.com/eth-2-0-deposit-contract-secures-enough-funds-to-launch.
[23] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[24] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[25] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.

interest on their staked ETH.[26] As the number of validators grew, the Ethereum Foundation represented that interest rates would correspondingly decrease.[27] This is because the Ethereum 2.0 rewards operate on a sliding scale that adjust dynamically based on the total amount of staked wealth in the network.[28]

Initially, at launch, Ethereum 2.0 users would not be able to send transactions, store user data, or deploy smart contracts.[29] In the first phase, Ethereum 2.0 focused solely on coordinating validators and monitoring their work.[30] Validators worked to secure the beacon chain, which served as the central consensus layer of the blockchain that would create a registry of all Ethereum 2.0 validators, their relative stakes, and assign their roles.[31]

Validators could not transfer the rewards they earn for their work in securing the Ethereum 2.0 network back to the original Ethereum blockchain during the initial two phases.[32] In the interim, all existing users and decentralized apps ("dapps") would send their transactions as normal on Ethereum's Proof of Work (PoW) blockchain.[33]

Ethereum 2.0 validators could at any point unstake their 32 ETH from the 2.0 network and stop earning rewards.[34] However, until the two Ethereum chains were merged, the 32 ETH staked and any additional rewards earned as a validator could not be transferred back to the original Ethereum blockchain, and essentially were stuck in limbo. Further, during the first and second phase, there is little a user can do with ETH staked on Ethereum 2.0 except earn interest on it as an active network validator.[35]

The second phase activated Ethereum 2.0's primary scalability solution, sharding.[36] Sharding is the process of partitioning a database across multiple machines.[37] As applied to blockchains, sharding is the process of splitting up the Ethereum network across several blockchains.[38] In Ethereum 2.0, each individual PoS blockchain is called a "shard."[39] Instead of validating all transactions through a single blockchain, Ethereum 2.0 was designed for users to choose to send their transactions to one of many shards.[40] Each shard is designed to process transactions and create new blocks concurrently with other shards.[41] Sharding allows for splitting

[26] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[27] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[28] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9-10.
[29] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[30] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[31] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[32] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[33] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 7.
[34] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 10.
[35] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 10.
[36] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[37] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[38] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[39] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[40] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[41] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.

the Ethereum transaction load across multiple blockchains so as to increase the speed of transaction processing.[42]

The beacon chain, the central Ethereum 2.0 blockchain, would act as the bridge connecting all shards, containing summaries of shard data in one central blockchain.[43] Sixty-four shards were initially created.[44] During this phase, the shards had no functionality for consumptive or transactional uses, such as to run dapps or to store account balances.[45] Instead, the functionality of these shards was limited to testing the aggregation and movement of data between shards and the beacon chain.[46]

The third phase, the Paris update, involved merging Ethereum 2.0 and the Ethereum mainnet into one blockchain environment.[47] This blockchain merger was necessary for the success of Serenity. It was likewise necessary for the ETH staked to Ethereum 2.0 to ultimately have any value, because the existing Ethereum network (rather than Ethereum 2.0) is the only network that has an existing ecosystem for consumption and transactions. Ethereum 2.0, in contrast, has no ecosystem for consumption, and the value of the tokens staked to Ethereum 2.0 thus hinges heavily on the assumption that staked tokens will eventually become spendable on dapps and in smart contracts that were only accessible on the original Ethereum network.

Once the integration was complete, Ethereum ceased to generate block rewards.[48] At that time, Ethereum became one of 64 PoS shards in the Ethereum 2.0 network.[49] At this juncture, validators on Ethereum 2.0 took over responsibility for transaction validation and block creation.[50] In the absence of mining rewards, new coin issuance is presently dictated entirely by validator interest rates.[51] In the next phase, dapps were deployed on Ethereum 2.0 and became functional.[52] Once communication between the 64 shards and the beacon chain was fully tested, users could finally run dapps and deploy smart contracts on the Ethereum 2.0 network.[53] As a necessary component to running dapps, smart contracts on Ethereum previously could only be coded in programming language Solidity.[54] However, after the third phase, Ethereum 2.0 enabled dapps to be coded in any programming language, not just Solidity.[55]

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[42] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[43] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[44] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[45] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[46] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[47] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8; *see also* https://ethereum.org/en/roadmap/merge/
[48] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 10.
[49] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 10.
[50] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 10.
[51] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 10.
[52] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[53] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[54] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.
[55] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 8.

In the final phase, the Shanghai and Capella upgrades, which took place in April 2023, validators were finally able to unstake their ETH as well as accrued interest.[56]

Under this arrangement, presumably the Ethereum Foundation developers will continue to administer improvements to the network and distribution of validator rewards post-launch, and will be responsible for the success or failure of Ethereum post-merge.

II. Organizational Structure of Ethereum 2.0 Development

Developments to the Ethereum source code are led by a core group of developers, "chief among them . . . Vitalik Buterin."[57] These developments are overseen and promoted by the Ethereum Foundation, a Swiss non-profit.[58] Buterin is the founder of the Ethereum Foundation.[59]

With respect to Ethereum 2.0 specifically, developments to the Ethereum 2.0 network are built and implemented by a core group of Ethereum Foundation developers. While any developer can submit an improvement proposal on GitHub, there are very few developers in fact responsible for the vast majority of additions and commits on the Ethereum 2.0 network. An "addition" is a line of code submitted to the repository. A "commit" is an action that sends changes made to the source code to the GitHub repository, making the changes official.[60] Thus, the developers with the greatest concentration of additions and commits are those most responsible for implementing source code changes to the Ethereum 2.0 network.

The GitHub page for Ethereum 2.0 contributors shows that there are only 5 developers with a significant concentration of additions or commits, all of whom are employed by the Ethereum Foundation. The five developers with 10,000 or more additions and 400 or more commits to the Ethereum 2.0 network are Danny Ryan, Hsiao-Wei Wang, Diederik Loerakker, Justin Drake, and Vitalik Buterin. Danny Ryan (GitHub name "djrtwo") is a software developer employed by the Ethereum Foundation.[61] He has the single largest number of commits and the second largest number of additions, with over 66,000 additions and over 1400 commits.[62] Hsiao-Wei Wang (GitHub name hwwhww), an Ethereum Foundation researcher, has the largest number of additions (over 70,000) and the second largest number of commits (1273).[63] Diederik Loerakker (GitHub name protolambda), a platform architect employed by the Ethereum Foundation, has the third

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[56] Hicks, *supra* n. 16.
[57] CryptoEQ, *CORE Report: Ethereum,* Governance, *see* https://www.cryptoeq.io/corereports/ethereum-abridged.
[58] Bloomberg.com, *Ethereum Foundation*, https://www.bloomberg.com/profile/company/1482193D:SW.
[59] Crunchbase, *Vitalik Buterin*, https://www.crunchbase.com/person/vitalik-buterin.
[60] *See* GitHUB, *GitHUB Glossary,* "Commit," https://docs.github.com/en/free-pro-team@latest/github/getting-started-with-github/github-glossary#commit.
[61] Jeff Wilser, *'Happy Staking': Ethereum Core's Danny Ryan on 2.0 in 2021*, Coindesk (Dec. 15, 2020), https://www.coindesk.com/ethereum-core-danny-ryan-2021.
[62] GitHub, *Ethereum 2.0 Contributors*, https://github.com/ethereum/eth2.0-specs/graphs/contributors, Accessed June 27, 2023.
[63] GitHub, *Ethereum 2.0 Contributors*, https://github.com/ethereum/eth2.0-specs/graphs/contributors, Accessed June 27, 2023; Ethereum Virtual Summit 2020, https://www.etherealsummit.com/ethereal-virtual-summit-2020 (listing Hsaio-Wei Wang as an Ethereum Foundation researcher); Twitter, Hsiao-Wei Wang, https://twitter.com/icebearhww?lang=en (self describes as "Eth2 R&D").

largest number of additions (over 48,000) and the third largest number of commits (804).[64] The fourth most active developer, Justin Drake (GitHub name JustinDrake), is also employed by the Ethereum Foundation as a researcher.[65] Drake has the fourth largest number of commits (550) and the fifth largest number of additions (over 11,000).[66] Finally, Buterin (GitHub name vbuterin), founder of the Ethereum Foundation, has the fourth largest number of additions (over 12,000) and the fifth largest number of commits (542).[67]

III. Ethereum 2.0 Staking Programs

Multiple major cryptocurrency trading platforms offered staking programs to their users who wished to stake their ETH to the Ethereum 2.0 network. Under these offerings, the platforms offer their customers rewards ranging from 5% to 20% annually.[68] To participate, the users deposit 32 ETH with the exchange (worth over $16,000 at the time of launch, now worth over $59,826.88), or a lesser amount of ETH.[69] If a user stakes fewer than 32 ETH, the exchanges presumably pool that user's staked contribution with that of other users (or with the exchange's own ETH holdings) to reach the 32 ETH staking threshold.[70]

Users who staked ETH through these exchanges could not unstake or redeem that quantity of ETH until after the Shanghai and Capella upgrades were completed in April 2023.[71]

Further, under the exchanges' programs, the exchanges post themselves as the validators on behalf of their users and bear the risk of on-chain penalty and forfeiture in the event that the exchange is at fault and the validator goes idle, engages in malicious conduct, or fails to validate.[72]

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[64] GitHub, *Ethereum 2.0 Contributors*, https://github.com/ethereum/eth2.0-specs/graphs/contributors, Accessed June 27, 2023; LinkedIn, Diederick Loerakker, https://www.linkedin.com/in/diederik-loerakker/?originalSubdomain=nl (self-describing as "Platform architect, R&D at Ethereum Foundation, building Ethereum 2.0".

[65] LinkedIn, Justin Drake, https://www.linkedin.com/in/drakefjustin/?originalSubdomain=uk (self describes as "Researcher at the Ethereum Foundation").

[66] GitHub, *Ethereum 2.0 Contributors*, https://github.com/ethereum/eth2.0-specs/graphs/contributors, Accessed June 27, 2023.

[67] GitHub, *Ethereum 2.0 Contributors*, https://github.com/ethereum/eth2.0-specs/graphs/contributors, Accessed June 27, 2023.

[68] *See, e.g., Krakenfx, Ethereum Holders: Earn Staking Rewards and Support the Upgrade to Ethereum 2.0* (Dec. 3, 2020), https://blog.kraken.com/ethereum-hodlers-earn-staking-rewards-and-support-the-upgrade-to-ethereum-2-0. 2-0/; Binance, Binance Supports ETH-2.0 Staking, https://www.binance.com/en/blog/421499824684901302/Binance-Supports-ETH-20-Staking.

[69] *See, e.g., Krakenfx, Ethereum Holders: Earn Staking Rewards and Support the Upgrade to Ethereum 2.0* (Dec. 3, 2020), https://blog.kraken.com/ethereum-hodlers-earn-staking-rewards-and-support-the-upgrade-to-ethereum-2-0. 2-0/; Binance, Binance Supports ETH-2. 0 Staking, https://www.binance.com/en/blog/421499824684901302/Binance-Supports-ETH-20-Staking. Coinbase, Ethereum 2.0 Staking, https://help.coinbase.com/en/coinbase/trading-and-funding/staking-rewards/eth-2-0-staking.

[70] This assumption is made because outside of pooling ETH held by the exchange, there would be no other way for the exchange to stake the ETH of a user who stakes less than 32 ETH, as a minimum of 32 ETH are required to stake to the Ethereum 2.0 network.

[71] Hicks, *supra* n. 16.

[72] Kraken, *Terms of Service*, Annex C, Addendum: Staking Services ("Staking Addendum"), Slashing Penalty, https://www.kraken.com/en-us/legal ("A determination by the Supported Protocol that the Staking Service has been erroneously operated may result in a "slashing penalty" and non-payment of the specified Staking Rewards. Kraken agrees to compensate you for any slashing penalties to the extent such penalties are not a result of (i) your acts or

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As validator rewards are received by these exchanges, users who stake through the platforms will receive a share of those rewards proportional to their percentage of the 32 ETH staked.[73]

LEGAL ANALYSIS

I. U.S. Securities Law Legal Framework

Section 5 of the Securities Act prohibits the offer, sale, or delivery after sale of any security without an effective or filed registration statement. 15 U.S.C. § 77e(a), (c). As such, a prima facie case of a section 5 violation requires the SEC to show: (1) that no registration statement was in effect or filed with respect to the securities; (2) that the defendant offered to sell or sold a security; and (3) that "there was a use of interstate transportation, of communication, or of the mail[]" in connection with the sale or offer of sale. *S.E.C. v. Cavanagh*, 1 F. Supp. 2d 337, 361 (S.D.N.Y. 1998), *aff'd*, 155 F.3d 129 (2d Cir. 1998).

A. The Howey Test for Investment Contract Securities

Section 2(a)(1) of the Securities Act defines a "security" to include an "investment contract" as well as investment vehicles such as stocks and bonds. 15 U.S.C. § 77b(a)(1). Under the *Howey* test, the Supreme Court defined an "investment contract" as "a contract, transaction or scheme whereby a person invests his money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party." *S.E.C. v. W.J. Howey Co.*, 328 U.S. 293, 298-99 (1946).

Under the *Howey* test, an investment contract exists when there is:

(i) an investment of money;

(ii) in a common enterprise;

(iii) with a reasonable expectation of profits; and

(iv) the expectation of profits is based upon the entrepreneurial or managerial efforts of others.

Id. at 298-99, 301; *see also United Hous. Found., Inc. v. Forman*, 421 U.S. 837, 852–53 (1975) (expanding on *Howey* definition of an investment contract and holding that the "touchstone" of the test is "the presence of an investment in a common venture premised on a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others").

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omissions, (ii) Supported Protocol maintenance, bugs, or errors, (iii) acts by a hacker or other malicious actor, or (iv) Force Majeure Events."); Binance, *Binance Supports ETH-2.0* Staking, https://www.binance.com/en/blog/421499824684901302/Binance-Supports-ETH-20-Staking.

[73] *See* Binance, *Binance Staking* — ETH 2.0, https://www.binance.com/en/eth2; Kraken, *Terms of Service*, Annex C, Addendum: Staking Services ("Staking Addendum"), https://www.kraken.com/en-us/legal.

Due to the varying characteristics of digital assets, any analysis of whether a particular digital asset is a "security" is fact-intensive and must be applied on a case-by-case basis. *See Howey*, 328 U.S. at 299; *accord Forman*, 421 U.S. at 849.

B. Precedent Applying the Howey Test to Digital Assets

The courts have had few opportunities to consider how the *Howey* test applies to digital assets. Courts have, however, generally accepted the application of *Howey* to digital assets. *See, e.g.*, *Beranger v. Harris*, No. 1:18-CV-05054-CAP, 2019 U.S. Dist. LEXIS 195107, at *6 (token ICO); *Balestra v. ABTCOIN LLC*, 380 F. Supp. 3d 340, 352 (S.D.N.Y. 2019) (token ICO); *S.E.C. v. Blockvest, LLC*, No. 18CV2287-GPB(BLM), 2019 U.S. Dist. LEXIS 24446, at *13 (S.D. Cal. Feb. 14, 2019) (token ICO); *Solis v. Latium Networks, Inc*., No. 18-10255 (SDW) (SCM), 2018 U.S. Dist. LEXIS 207781, at *4-5 (D.N.J. Dec. 10, 2018) (token ICO); *United States v. Zaslavskiy*, No. 17CR647(RJD), 2018 U.S. Dist. LEXIS 156574, at *10-12 (token ICO).

Three recent SEC complaints and two recent decisions issued by the Southern District of New York have applied this securities framework to token sales that did not involve any Initial Coin Offering ("ICO"). *See S.E.C. v. Kik Interactive, Inc.*, No. 19 Civ. 5244, 492 F. Supp. 3d 169, 173 (S.D.N.Y. 2020); *S.E.C. v. Telegram Group*, 448 F. Supp. 3d 352 (S.D.N.Y. 2020); *see also S.E.C. v. Ripple Labs, Inc.*, No. 1:20-cv-10832 (S.D.N.Y. Dec. 22, 2020); Complaint, *S.E.C. v. Binance Holdings Ltd.*, No. 1:23-cv-01599 (D.D.C.), ECF No. 1; Complaint, *S.E.C. v. Coinbase, Inc.*, No. 1:23-cv-04738 (S.D.N.Y.), ECF No. 1. These five developments provide helpful guidance on how the SEC and courts may treat digital assets, in the absence of an ICO, under *Howey*. Given the prestige of the Southern District of New York and the court's in-depth analysis in both cases, these decisions are likely to significantly impact how courts across the country analyze non-ICO digital asset sales in the United States.

1. SEC v. Telegram

In 2017, Telegram's developers entered into private purchase agreements with 175 private investors through which Telegram promised to build the Telegram Open Network (TON) Blockchain, and if successful, to create a specific digital currency for this network, the Gram, that could be used for everyday transactions. *Telegram*, 448 F. Supp. at 360. To build the network, Telegram needed to raise funds. Telegram did not, however, make an ICO. Rather, it raised $1.7 billion through two rounds of a global private placement, in which Telegram entered into purchase agreements with 175 private investors through which Telegram promised to develop the TON Blockchain and deliver 2.9 billion Grams to the investors upon successful launch of the platform. *Id.* at 358. In total, the developers sold 58% of the supply of Grams to these 175 initial investors. *Id.* at 361. The price per Gram, as sold to the first round of investors, was 38 cents. *Id*. The price per Gram, as sold to the second round of investors, was $1.33. *Id.* The offering materials stated that this was a substantial discount on the reference price of Grams at launch, which they estimated would be around $3.62 per Gram. *Id.* at 363.

With respect to the Round 1 purchasers, the agreement further provided limitations on how soon the investors could unload their allotment post-launch—allowing them to only unload one quarter of the allotment 3 months post-launch, and then to unload the remaining quarters at 6, 12,

and 18 month intervals. *Id.* at 361. The Round 2 purchasers, in contrast, had no limitations on how much and how soon they could sell their allotments post-launch. *Id.*

The 2.9 billion sum of Grams sold to the initial investors is slightly more than half of the total initial Gram supply of 5 billion. According to promotional materials distributed to the initial investors, the Grams not distributed to the initial investors would be divided in the following ways. Four percent would be delivered to the developers of the TON Blockchain. Ten percent of Grams would be reserved to distribute post-launch in incentive programs to encourage Telegram Messenger users to adopt the use of Grams. *Id.* at 361-62. Half of this allotment would be distributed on a first-come, first-served basis to Telegram Messenger users. *Id.* at 362. The remaining 28% of unallocated Gram supply would be held in a reserve pool managed by the TON Foundation, a nonprofit with a board of directors on which both founders of Telegram would sit. *Id.* However, Telegram also noted "there was no timetable for creating the TON Foundation and stated it might not be created at all," in which case the reserve pool would be "locked for perpetuity." *Id.*

Telegram did not register the investment contracts as securities, relying on Rule 506 of Regulation D. *Id.* at 361. Telegram further voluntarily engaged with the SEC throughout the process, producing documents and responding to the SEC's questions. Telegram conceded that the initial private contracts qualified as securities but argued that the subsequent distribution of Grams by the private investors to purchasers in the secondary market would not qualify as security transactions. *Id.* at 367. The SEC argued, in contrast, that under this structure, the initial private investors were acting as underwriters for Telegram, and in distributing the Gram tokens initially on the secondary market, they continue to act as underwriters distributing securities. *See id.* at 358.

The court granted the SEC's motion for a preliminary injunction, ruling that the SEC had established a substantial likelihood of success in proving that Telegram's distribution of Grams was a securities offering that needed to be registered with the SEC. *Id.* It reasoned that "Telegram knew and understood that reasonable purchasers would not be willing to pay $1.7 billion to acquire Grams merely as a means of storing or transferring value." *Id.* The court found that the deal was structured "to allow [the initial] purchasers to maximize the value they receive upon resale in the public markets." *Id.* The court further found that even though the token issuer, Telegram, formally disclaimed any intention to remain committed to the success of the token post-launch, "as a matter of fact[,] rather than legal obligation," Telegram "will be the guiding force behind the TON Blockchain [supporting the Gram token] for the immediate post-launch period while the [initial] purchasers unload their Grams into the secondary market." *Id.* at 358-59. For this reason, the court held that "the initial 175 purchasers possess a reasonable expectation of profit based upon the efforts of Telegram because these purchasers expect to reap whopping gains from the resale of Grams in the immediate post-launch period." *Id.* at 359.

In applying the *Howey* test, the court found an investment of money (the first element) based on the $1.7 billion investment made by the initial purchasers "in exchange for the future delivery of Grams." *Id.* at 368-69.

With respect to the second element, it found horizontal commonality because Telegram had pooled the money received by the initial investors and used it to develop the blockchain supporting the Gram token. *Id.* at 369-70. It additionally found that the SEC had made a substantial

showing of vertical commonality, concluding that the initial investors anticipated profits from the tokens they received were directly dependent on the success of the promoter's efforts with respect to launching the token and supporting infrastructure. *Id.* at 370-71. In finding strict vertical commonality, the court also considered the fact that the promoters would keep a reserve consisting of 28% of all tokens after launch, which would meaningfully tether the promoters' financial fortunes to the price of the token. *Id.* at 370.

Turning to the third element, the court found that a reasonable investor in the Telegram offering would have purchased Grams with investment intent, based on several factors. *Id.* at 371-72. The court emphasized, among other things, (i) the discounted price at which the initial investors acquired the tokens, (ii) that at launch the tokens would only be available for public purchase through the promoters or through resale by the initial investors, (iii) that the round 2 investors had no lockup clause preventing immediate resale upon launch, (iv) that the promoters had touted their ability to support the token's market price; (v) the vast size of the initial investors' token purchases, which the court concluded was too great to have been purchased for consumptive use by the investors; and (vi) the fact that the agreement contained lockup provisions, which the court found "tend[ed] to negate the likelihood that a reasonable Round One Purchaser purchased Grams for consumptive use." *Id.* at 372-73.

Finally, as to the fourth element, the court found that a reasonable initial investor's expectation of profits from the purchase of Grams would likely have stemmed from the entrepreneurial and managerial efforts of Telegram. *Id.* at 375. The court noted that the token being sold did not exist at the time of the sale, and its value depended primarily on the efforts of Telegram to develop the blockchain for the token and promote its use. *Id.* at 375-76; *accord Beranger*, 2019 U.S. Dist. LEXIS 195107, at *8-10 (finding plaintiffs had sufficiently alleged final prong of *Howey* where issuer advertised profit potential of newly created digital token with no value prior to issuance); *Zaslavskiy*, 2018 U.S. Dist. LEXIS 156574, at *20-21 (finding that indictment sufficiently alleged that investors could have reasonably expected profits to be derived primarily from managerial efforts of issuer where the issuer's marketing materials and communications advertised that the issuer would use their expertise to develop the ventures and generate profits).

Upon finding that the initial token sales at issue constituted an investment contract and qualified as securities, the court addressed whether the subsequent sales of those tokens by the initial investors on exchanges would qualify as the sale of securities. It held that the initial sales of the token by the investors should be viewed as a holistic series of transactions tethered to the initial purchase agreements. *Telegram*, 448 F. Supp. 3d at 379 (stating "the security in this case is not simply the Gram, which is little more than alphanumeric cryptographic sequence," but "the full set of contracts, expectations, and understandings centered on the sales and distribution of the Gram," to be evaluated from "the point at which the scheme's participants had a meeting of the minds, i.e. at the time of the 2018 Sales, rather than the date of delivery"). It relied on Second Circuit precedent stating that a "[d]istribution compromises the entire process by which in the course of a public offering the block of securities is dispersed and ultimately comes to rest in the hands of the investing public." *R. A. Holman & Co. v. S.E.C.*, 366 F.2d 446, 449 (2d Cir. 1996). The *Telegram* court explained that "the security in this case is not simply the Gram," but rather "the full set of contracts, expectations, and understandings centered on the sales and distribution of the Gram."448 F. Supp. 3d at 379.

The court found that the SEC had shown a substantial likelihood of success in proving that Telegram had sold Grams to the initial investors with the intent that those Grams would be distributed into the secondary public market by the initial investors. *Id.* It relied on its finding that the issuer "did not intend for Grams to come to rest with the 175 Initial Purchasers but to reach the public at large via post-launch resales by the Initial Purchasers." *Id.* at 380. It rejected a warranty in the initial purchase agreements whereby the initial investors warranted that they were "purchasing the Tokens for [their] own account and not with a view towards, or for resale in connection with, the sale or distribution." *Id.* at 381. It explained that the court must "evaluat[e] [the] economic reality of this scheme," and that "legal disclaimers" that appeared inconsistent with that economic reality "do not control." *Id.* It found that these disclaimers "r[ang] hollow in the face of the economic realities" of the scheme. *Id.*

The court thus found the initial investors qualified as underwriters who did not qualify for an exemption under Section 4(a) or 506(c). *Id.* at 380. Upon finding that the series of token sale agreements should be viewed as one agreement, it held that each transaction within this chain qualified as part of a public offering that did not qualify for the Section 4(a)(2) exemption. *Id.* at 381 (stating "Grams would not and were not intended to come to rest with the Initial Purchasers but instead were intended to move from the Initial Purchasers to the general public" through a "two-step process"). It further held that the issuer had "failed to use reasonable care to ensure that the Initial Purchasers were not underwriters," and thus could not qualify for the Rule 506(c) exemption. *Id.*

2. SEC v. Kik Interactive

In *Kik Interactive*, as in *Telegram*, the court held that Kik's pre-sale of its new digital asset, the Kin token, to private investors through SAFTs, coupled with the public distribution of this token following the private sale, qualified as a single public distribution and an unregistered security. 492 F. Supp. 3d at 173.

In 2010, Kik Interactive Inc, a Canadian corporation, launched a messenger app, Kik Messenger, which had 300 million users by 2020. *Id.* In 2017, Kik decided to generate revenue by creating a token, Kin, that could be used for consumptive purposes to make in-app purchases within Kik Messenger. *Id.* Kik sold future rights to Kin to accredited investors through a private sale from June 2017 through September 11, 2017. *Id.* at 174. It used the SAFT model for these investors. *Id.* Under Kik's SAFT, the investors received the right to future Kin tokens at a 30% discount on the price offered to the public at launch — "50% of their acquisition when the public offering…became effective, and 50% a year after." *Id.* at *5. Kik required each investor to sign a legal disclaimer stating that it was entering into the agreement for its own account, and not for the purpose of resale. Kik only filed a Form D with the S.E.C. claiming the Pre-Sale was exempt under Rule 506(c) on September 11, 2017, the last day of the Pre-Sale. *Id.* at 175. It also engaged in a public offering beginning on September 12, 2017, the day after the private sale ended. *Id.* at 175. In total, Kik sold 1 trillion Kin and received $100 million from these sales. *Id.* at 176. Roughly fifty million dollars came from its sales to private accredited investors, and forty-nine million dollars came from sales to the public. *Id.* at 175 (stating "Kik received $50 million through the Pre-Sale," and "[d]uring the [Token Distribution Event], approximately 10,000 purchasers bought Kin in exchange for" an amount totaling "approximately $49.2 million"). Kik and the Kin Foundation retained control of 90% of Kin distributed in its September 2017 sale to the public. *Id*

Kik did not register the offering and sale with the SEC and did not publicly disclose its financial statements.

The court held that these unregistered sales violated Section 5 of the Securities Act of 1933. *Id.* at 173. The court found a common enterprise because Kik deposited the funds from investors into a single bank account and used them to develop the digital ecosystem for the Kin token, which was crucial to the token's value. *Id.* at 178. The court explained that under *Howey*, the common enterprise element may be established by showing horizontal commonality, "'the tying of each individual investor's fortunes to the fortunes of the other investors by the pooling of assets, usually combined with the pro rata distribution of profits.'" *Id.* (quoting *Revak v. SEC Realty Corp.*, 18 F.3d 81, 87 (2d Cir. 1994)). It held that the "key feature" defining a common enterprise "is not that investors must reap their profits" in a specific form or at the same time, but rather it is "that investors' profits at any given time are tied to the success of the enterprise." *Id.* at 179. It wrote that "the nature of a common enterprise [is] to pool invested proceeds to increase the range of goods and services from which income and profits could be earned or, in the case of Kin, to increase the range of goods and services that holders of Kin would find beneficial to buy and sell with Kin." *Id.*

In finding a common enterprise, the court stressed that Kik used the funds deposited to construct "the digital ecosystem it promoted" and noted that "[t]his ecosystem was crucial. The success of the ecosystem drove demand for [the token] and thus dictated investors' profits." *Id.* at 178. The court added that receipt of "a pro-rata distribution . . . is not required for a finding of horizontal commonality," and found the functional equivalent here insofar as "investors reaped their profits in the form of the increased value of Kin." *Id.*

The court was not dissuaded by the fact that in its agreement with investors, Kik "expressly disclaimed any [ongoing contractual] obligation" to the public investors once they received their Kin. *Id.* The court noted that there is no requirement to find an ongoing contractual obligation between the promoter and the investors to find a common enterprise. *Id.* (*citing Davis v. Rio Rancho Estates, Inc.*, 401 F. Supp. 1045, 1049-50 (S.D.N.Y. 1975)). Further, it held that this provision must be viewed in light of the economic reality of the situation. *Id.* at 179. It observed that the economic reality of the offering reflected that Kik pooled proceeds from the sales of Kin to create a digital ecosystem for the token to boost the value of the investment. *Id.* It thus held that this arrangement amounted to a common enterprise. *Id.*

The court likewise found that the investors reasonably expected profits to be derived from Kik's entrepreneurial and managerial efforts. *Id.* at 179-80. The court noted that the reasonable expectation of profits may be established where the profits take the form of capital appreciation resulting from the development of the initial investment. *Id.* at 179. Further, it clarified that the expectation of profits need not be derived exclusively from the promoters' efforts per Second Circuit precedent. *Id.* (citing *United States v. Leonard*, 529 F.3d 83, 88 (2d Cir. 2008)). In finding this element satisfied, the court noted that in marketing Kin to investors, Kik touted the token's profit-making potential. *Id.* The court further observed that Kik's CEO had emphasized to investors the limited supply of Kin as a reason why its value would increase as demand for the token increased, giving early investors an opportunity to profit. *Id.*

The court rejected Kik's argument that the sales of Kin did not qualify as an investment contract because of the token's intended consumptive use, explaining that at the time of the sales, there were no goods or services available to purchase with Kin, such that it had no consumptive use at the time of distribution. *Id.* at 180. As the court observed, the consumptive uses "would materialize only if the enterprise advertised by Kik turned out to be successful." *Id.* The court accordingly concluded that Kin would only become valuable by the promoter's subsequent efforts to attract developers and invest in those opportunities for consumption. *Id.* It found these efforts by Kik "crucial" to the potential value of Kin because absent development of the Kin digital ecosystem, "Kin would be worthless." *Id.*

Critically, the court held that Kik's sales to private investors and to the public constituted a single public distribution that was part of an "integrated offering" under Regulation D. *Id.* at 182. It considered 5 factors: (a) whether the two sales were part of a single plan of financing; (b) whether the sales involved issuance of the same class of securities; (c) whether the sales were made around the same time; (d) whether the same type of consideration was received in both sales; and (e) whether the sales were made for the same general purpose. *Id.* at 181.

The court found four of these elements present. *Id.* At 182 (noting "[t]he only factor weighing against a finding of integration is that Kik received different forms of consideration from two sales"). It concluded that the private investor sale and public sale were part of a single plan of financing and made for the same general purpose, as proceeds of both sales funded Kik's operation and the buildout of the Kin ecosystem. *Id.* at 181. It also relied upon the fact that in public and internal statements, Kik discussed its efforts to raise the $100 million collectively, treating both sales as part of a single fundraising effort. *Id.* It further relied upon the fact that pre-sale participants could not receive their Kin tokens unless the token successfully launched through the public sale. *Id.* The court thus found these sales were intertwined by design. *Id.* at 182 ("[a]ll of Kik's behavior suggests that this was a single effort to raise capital to deploy Kin and keep Kik alive"). In addition, it found that the sales were made around the same time and involved the same class of securities. *Id.* Finally, while the consideration received in the two sales differed, the court held that, on balance, these factors constituted an integrated offering subject to Section 5's registration requirements. *Id.*

3. SEC v. Ripple Labs, Inc.

On December 22, 2020, the SEC filed a 71-page complaint against Ripple Labs, former CEO Christian Larsen, and current CEO Bradley Garlinghouse, for its continuous offering from 2013 through the present of over 14.6 billion units of XRP tokens in exchange for consideration worth over $1.38 billion. Amended Complaint, *S.E.C. v. Ripple Labs, Inc.*, No. 1:20-cv-10832, (S.D.N.Y. Dec. 22, 2020), ECF No. 46. The SEC alleged that "Ripple used this money to fund its operations without disclosing how it was doing so[.]" *Id.* at ¶ 5. The SEC further noted that Larsen and Garlinghouse personally profited by approximately $600 million from these sales. *Id.* at ¶ 6.. The defendants never contacted the SEC to obtain clarity on their obligations nor did they file a registration statement prior to offering or selling XRP. *Id.* at ¶ 59, 60.

The SEC alleged that upon completing the coding of the XRP ledger in December 2012, the defendants distributed the final version of the software to the public with a fixed supply of 100 billion XRP. *Id.* at ¶ 45. Larsen and two others then transferred 80 billion XRP to Ripple Labs and

the remaining 20 billion XRP to Larsen and Larsen's two co-founders. *Id.* at ¶ 46. Accordingly, Ripple Labs and its co-founders owned 100% of XRP at the time of launch. *Id.*

Purchase or Sale in a Common Enterprise

Beginning in 2013, the defendants began to create a market for XRP by having Ripple distribute 12.5 billion XRP to programmers as compensation for reporting problems in the XRP ledger's code. *Id.* at ¶ 61. Ripple simultaneously allegedly made public statements to create an expectation of profit for potential XRP investors. *Id.* at ¶ 62. The SEC summarized early promotional materials which "noted the 'record highs' of prices other digital assets had achieved as something Ripple hoped to emulate for XRP." *Id.* at ¶ 63. Among other relevant promotional materials, the complaint also highlights that "Ripple . . . directed all readers of its website to information about 'How to Buy XRP' and has provided a list of digital asset trading platforms. . . on which investors can make those purchases." *Id.* at ¶ 97.

The SEC further alleged that Ripple lacked the funds to pay for its corporate business's expenses, which for 2013 and 2014 exceeded $25 million. *Id.* at ¶ 70. Ripple thus began to actively offer and sell XRP in exchange for fiat currencies or other digital assets beginning in August 2013 (and continuing through the present) in order "to obtain essential funding for Ripple's operations and develop a speculative trading market in XRP." *Id.* at ¶ 72, 102.. Ripple's sale of 14.6 billion units of XRP were divided into several categories, with two predominating—the sale of at least 3.9 billion XRP through sales to the general public for $763 million and sales of at least 4.9 billion XRP to at least 26 institutional investors for approximately $624 million. *Id.* at ¶¶ 80, 81, 106.

Reasonable Expectation of Profits Derived from Ripple's Efforts

The SEC alleged that Ripple offered and sold XRP as an investment based on "Ripple's promises to undertake significant entrepreneurial and managerial efforts, including to create a liquid market for XRP, which would in turn increase demand for XRP and therefore its price." *Id.* at ¶ 238. The complaint states that the defendants "repeatedly stated publicly that they would undertake significant efforts to develop and foster 'uses' for XRP, so that banks, financial intermediaries, or other specialized money transmitting businesses would want to buy it[.]" *Id.* at ¶ 243. The complaint is replete with examples of website postings and public statements by Ripple and its CEO in published interviews and on social media touting Ripple's commitment to supporting XRP's price, celebrating XRP price increases, and recounting the significant efforts Ripple has undertaken to support XRP's price and liquidity. *See id.* at ¶¶ 193-289. As two examples, former CEO Larsen stated in a published April 2014 interview that "Ripple was 'helping to build in the Ripple protocol . . . the idea of an Internet-for-value exchange[.]'" *Id.* at ¶ 246. Ripple also created a promotional document in 2014 for financial professionals which stated that the demand for XRP would increase if the Ripple protocol were to become widely adopted. *Id.* at ¶¶ 247-49.

The complaint also alleges that throughout the continuous offering, the defendants "undertook significant efforts to monitor, manage, and impact the XRP trading markets, including the trading price and volume of XRP." *Id.* at ¶ 193. The SEC alleges that Ripple "internally described these strategies as aimed at maximizing the amount of money Ripple could raise in the Offering[.]" *Id.* at ¶ 196. The complaint further alleges that while Ripple did not publicize this buy

and sell strategy, "Ripple did publicly tout other actions it was taking to support XRP's market price, including to limit XRP supply or to create scarcity through XRP buybacks." *Id.* at ¶ 215.

Moreover, the complaint contends that "Ripple's touted efforts with respect to XRP [were not only] significant, they are essential to the success or failure of the enterprise[.]" *Id.* at ¶ 286. It alleges that unlike XRP investors, Ripple, based on its position as primary promoter and concentrated holder of XRP, was alone able to undertake "the various, complex, expensive, and all-encompassing strategies" that Ripple has undertaken to support the price of XRP. *Id.* at ¶ 286. It emphasized that, in contrast, "[i]nvestors in XRP do not exercise any control or authority over how Offering proceeds have been or will be spent. Ripple possesses sole discretion to decide how to do so." *Id.* at ¶ 287.

Ripple's Answer to the Amended Complaint

In 2022, Ripple filed an answer to the complaint. *SEC v. Ripple Labs, Inc.*, Doc. 463 (S.D.N.Y Apr. 08, 2022). In this answer, Ripple argues that XRP "functions as a medium of exchange, store of value, and a unit of account." *Id.* at ¶ 5. It further argues that XRP functioned "as a bridge currency, allowing for faster exchanges from one currency to another across the ledger." *Id*. It also notes that "XRP has been increasingly used as a bridge currency since 2012" and that "the number of transactions has increased to billions of dollars per year, confirming the use and vision for XRP as a bridge currency." *Id.*

Ripple also challenges the SEC's application of Howey. It claimed that "transactions in XRP do not constitute securities" and "are not 'investment contracts'" under *Howey*. *Id.* However, Ripple does not directly address the SEC's allegations that Ripple received $25 million from various XRP purchasers and used these funds to support Ripple's operation and develop a liquid trading market for XRP. Instead, it argues that "Ripple has never offered or sold XRP as an investment in Ripple." *Id.* at ¶ 7. Ripple also argues that, because "the vast majority of Mr. Larsen's offers and sales of certain of his personal holdings of XRP were completed on foreign cryptocurrency exchanges through an international market maker," they were "outside the territorial scope of Section 5 of the Securities Act." *Id.* at ¶ 10.

Ripple further argues that XRP holders do not expect future profits based on the efforts of Ripple because they "do not acquire any claim to the assets of Ripple, hold any ownership interest in Ripple, [or] have any entitlement to share in Ripple's future profits." *Id.* at 107. It notes that transactions made in XRP by Mr. Larsen "do not involve contracts with a counterparty" and therefore do not constitute an investment contract; accordingly, it argued application of the Securities Act in this instance was unconstitutionally vague: "[a] law imposing liability on a 'security' that does not meet the definition of a security, or on an 'investment contract' when no contract exists, is impermissibly and unconstitutionally vague." *Id.*

Subsequent Developments

On March 11, 2022, the District Court for the Southern District of New York issued two orders in response to motions by Ripple and by the SEC. First, the District Court denied Ripple's motion to dismiss for failure to state a claim against Ripple's current and former CEOs. *See* Order, *SEC v. Ripple Labs, Inc.*, No. 1:20-cv-10832-AT-SN, slip op. at 1 (S.D.N.Y. Mar. 11, 2022), ECF

No. 441. Ripple argued the SEC's complaint failed to allege the individual defendants actually had knowledge of Ripple's alleged violations of the Securities Act or substantially assisted in those violations. *See id.* at 15, 18. However, the District Court found the SEC plausibly alleged the individual defendants' involvement on both factors. *See id.* at 18. The SEC's allegations that the individual defendants orchestrated the sale of the unregistered XRP tokens and allegedly knew XRP purchasers "viewed those purchases as an investment in a common enterprise with a reasonable expectation of profits based on Ripple's efforts" were sufficient to plausibly show the SEC's claims. *See id.* at 18-20.

Second, the District Court denied the SEC's motion to strike Ripple's defense that it lacked "fair notice that its conduct was in violation of law, in contravention of due process rights." Order, *SEC v. Ripple Labs, Inc.*, No. 1:20-cv-10832-AT-SN, slip op. at 1 (S.D.N.Y. Mar. 11, 2022), ECF No. 440. The SEC argued that the defense was a "legally insufficient defense on which Ripple [could] not prevail as a matter of law." *Id.* at 7. However, there were facts in Ripple's answer—such as that "XRP's price bears no relation to Ripple's activities" and that "it has not sold XRP as an investment"—that, if true, would "raise legal questions as to whether Ripple had fair notice that the term 'investment contract' covered its distribution of XRP." *Id.* at 8. Accordingly, the SEC failed to show that there were "no questions of fact or law that might allow the defense to succeed" and denied the SEC's motion. *Id.*

On June 13, 2023, correspondence related to a 2018 speech made by then-director of the SEC's Division of Corporate Finance William Hinman was unsealed by the District Court. *See* Order, *SEC v. Ripple Labs, Inc.*, No. 1:20-cv-10832-AT-SN, slip op. at 18 (S.D.N.Y. May 16, 2023), ECF No. 819 (denying the SEC's motion to seal the "Hinman Speech Documents"). In the 2018 speech, Hinman stated that digital assets that exist on sufficiently decentralized networks may not be "investment contracts" under the meaning of *Howey*.[74] Specifically, Hinman questioned whether Bitcoin and Ether were securities.[75] The newly unsealed documents contained communications related to Hinman's statement, including that SEC staffers cautioned Hinman against making such statements because they could lead to increased confusion around the applicability of securities laws to digital assets.[76]

In response to the newly unsealed documents, both the SEC and Ripple filed new documents in support of their motions for summary judgment. In their motion, the SEC does not address the unsealed Hinman documents, but continues to argue that XRP constitutes an investment contract under the *Howey* test. *See* Pls. Mem. Law Opp'n Defs. Mot. Summ. J. at 1, *SEC v. Ripple Labs, Inc.*, No. 1:20-cv-10832-AT-SN, ((S.D.N.Y. June 13, 2023), ECF No. 841. For its part, Ripple argues that the unsealed documents show that the SEC has "equivocated as to whether Hinman's speech reflect[s] official SEC guidance." *See* Defs. Opp'n Pls. Mot. Summ. J, at 48, *SEC v. Ripple Labs, Inc.*, No. 1:20-cv-10832-AT-SN, (S.D.N.Y. June 13, 2023), ECF No. 828. They argue the SEC's internal correspondence supports its defense that they did not have fair

[74] *See* Tom Zanki, *SEC Official Says Bitcoin and Ether Are Not Securities*, LAW360 (June 14, 2018), https://www.law360.com/articles/1053854.
[75] *See id.*
[76] *See* Aislinn Keely, *SEC Staffers Warned Hinman On Crypto Remarks, Ripple Says,* LAW360 (June 13, 2023), https://www.law360.com/articles/1688363/sec-staffers-warned-hinman-on-crypto-remarks-ripple-says.

notice the Securities Act would be applied to XRP, because the speech and the SEC's other statements left "market participants . . . unsure what to think in its wake." *Id.* at 49.

4. SEC v. Coinbase, Inc.

In June 2023, the SEC filed a 101-page complaint against Coinbase, another trading platform on which customers may buy, sell, and trade digital assets. *See* Complaint, *SEC v. Coinbase, Inc.*, No. 1:23-cv-04738, (S.D.N.Y. June 6, 2023), ECF No. 1. In the complaint, the SEC alleges that Coinbase "made calculated business decisions to make crypto assets available for trading in order to increase its own revenues, which are primarily based on trading fees from customers, even where those assets, as offered and sold, had the characteristics of securities." *Id.* at ¶ 6. In particular, the SEC claims that Coinbase's staking program, which offers five of its own staking-eligible digital assets, constitutes an investment contract under *Howey*. *See id.* at ¶ 339.

The SEC's argument that Coinbase's staking program is a security under the *Howey* test is similar to their line of reasoning in *Ripple*. First, the SEC argues that the staking program is an investment contract because it allows customers to invest their money in Coinbase "in the form of staking-eligible crypto assets." *Id.* at ¶ 340. After purchasing one of the stake-eligible assets, customers have no control over the assets while "Coinbase has control over all of the crypto assets invested" in the program. *Id.* at ¶341. The complaint also alleges that "once an investor's crypto assets are staked to the underlying blockchain protocol, those assets are at risk of being slashed" or lost. *Id.* at ¶ 343.

Second, the SEC argues that the staking investors participate in a common enterprise, because Coinbase "controls and pools Staking Program investors' crypto assets, together with Coinbase's own crypto assets, in wallets controlled by Coinbase and segregated by asset." *Id.* at ¶ 346. The SEC's complaint alleges that, under Coinbase's User Agreement, Coinbase alone "retain[s] control over electronic private keys associated with blockchain addresses" used to hold the digital assets. *Id.* at ¶ 349. Further, the "revenue and profits that Coinbase stands to receive […] grows as more investors participate[,]" meaning the fortunes of both Coinbase and its investors are tied together. *Id.* at ¶ 353. Should Coinbase fail, its investors will not see returns. *See id.* at ¶ 356.

Third, the SEC alleges that Coinbase "promote[s] the Coinbase Staking Program—on its website, blog, and social media pages, and in advertisements—as a means for investors to earn high, fixed investment returns." *Id*. at ¶ 359. The complaint argues that Coinbase has specifically marketed its staking program as an "'easy' and 'passive' way to put [investor's] 'assets to work' and 'earn rewards for crypto that would otherwise be sitting around.'" *Id.* at ¶ 358. Accordingly, Coinbase's investors reasonably expect to profit from their participation in the staking program. *See id.* at ¶ 359.

Finally, the SEC alleges that "Coinbase's statements and actions, and the economic reality of the arrangements with respect to the Coinbase Staking Program, have led and will continue to lead investors reasonably to expect profits based on Coinbase undertaking significant and essential technical, managerial, and entrepreneurial efforts." *Id.* at ¶ 367. In support, the SEC's complaint points to statements made on Coinbase's website and by Coinbase leaders, such as "[o]n Coinbase, ***we do all this for you.***" *Id.* at ¶ 360. (emphasis in original). In other words, the complaint alleges

that users expect that it is Coinbase's efforts, rather than that of the users themselves, that will lead to profits. *See id.* at ¶¶ 365-67. Ultimately, the SEC alleges that Coinbase's scheme "earned billions of dollars in revenues by, among other things, collecting transaction fees from investors whom Coinbase has deprived of the disclosures and protections that registration entails and thus exposed to significant risk." *See id.* at ¶ 1.

5. SEC v. Binance Holdings Ltd.

The SEC filed a similar complaint against Binance, another provider of online cryptocurrency investment services, on June 5, 2023. *See* Complaint, *S.E.C. v. Binance Holdings Ltd.*, No. 1:23-cv-01599, (D.D.C. June 5, 2023), ECF No. 1. In its complaint, the SEC alleges that Binance, much like Coinbase, "engaged in the unregistered offer and sale of its Staking Program as an investment contract, and thus, as a security." *Id.* at¶ 348. The SEC also alleges that other unregistered crypto assets that Binance offers for sale on its website "are offered and sold as investment contracts, and thus as securities." *Id.* at ¶ 352.

Regarding the Binance staking program, the SEC argues that Binance—similar to Coinbase—marketed the staking program as a way for users to earn "'passive income'" through the efforts of Binance." *Id.* at ¶ 339. Additionally, the complaint alleges that Binance "promotes its Staking Program as a superior and much easier way to obtain staking rewards by, among other things, pooling the crypto assets of a large number of investors." *Id.* Thus, by pooling together the assets of all users, the Binance users not only invest their money in Binance's product but participate in a common enterprise. *See id.* at ¶ 350.

Further, the SEC alleges that Binance has "consistently promoted its Staking Program in a way that fuels [users'] reasonable expectations of profits." *Id.* at ¶ 351. Because Binance has advertised this scheme as a "passive" method for its users to earn profits, users also allegedly expect it is Binance's own efforts in managing the staking program, rather than the users' efforts, that will earn the users profits. *See id.* Accordingly, "the unregistered offer and sale of its Staking Program" constitutes "an investment contract" and a security. *Id.* at ¶ 348.

II. Application of Digital Asset Securities Case Law to Ethereum Developments

This section applies the *Howey* framework and its progeny involving digital assets both to Ethereum 2.0 itself (Part A), as well as to exchanges that have been made available to U.S. residents Ethereum 2.0 staking programs (Part B). As discussed above, the SEC has already argued many of these legal theories in court, and thus put the market, and any exchange, on notice that offering Ethereum 2.0 is the illegal offering of an unregistered security.

A. Application of Digital Asset Securities Case Law to Ethereum 2.0

In determining whether the Ethereum 2.0 network launch and rollout qualified as an investment contract that needed to be registered, a court would apply the four elements of *Howey*. There are several aspects of the Ethereum 2.0 rollout that would likely cause the SEC or a court to conclude that the process constituted an investment contract under *Howey*. At the highest level, the transaction between the Ethereum Foundation and the initial validator investors bears resemblance to Telegram's and Kin's initial private sales to institutional investors. Further, both

the Binance and Coinbase complaints specifically raise issues with transactions on the Ethereum blockchain. As in both cases, the Ethereum Foundation promised to develop the Ethereum 2.0 network and deliver the ETH tokens earned as interest to the initial validators *upon the successful launch of this platform*. *Kik Interactive*, 492 F. Supp. 3d at 174; *Telegram*, 448 F. Supp. 3d at 358. Likewise, as in both *Telegram* and *Kik*, there was no consumptive use for the tokens earned on the Ethereum 2.0 network until the Paris update and the network merge.

However, bearing in mind that the *Howey* test is always highly fact-specific, an independent analysis likewise results in the same conclusion. As to the first element under *Howey*, a court would likely find that the validators have made an investment of money in the Ethereum 2.0 network. First, users that want to earn rewards for helping to secure the network and process transactions must deposit 32 Ethereum tokens (ETH) into a smart contract on the original Ethereum blockchain. An equal amount of ETH is then created on the Ethereum 2.0 beacon chain, represented as a new token on that chain, and which the user could put up as collateral to become a validator. These validators only received their 32 ETH on the Ethereum 2.0 network because the critical mass of 16,000+ validator threshold was reached, allowing the Ethereum 2.0 network to launch. Second, the ETH created on Ethereum 2.0 could not be sent back to the original Ethereum blockchain. Third, there was a risk that the 32 ETH staked to the system could be lost entirely, under the forfeiture provisions of the smart contract agreement. Fourth, validators immediately began earning interest—potentially as high as 20%—on their initial 32 ETH investment.

This gives rise to the question of whether investing digital assets, rather than fiat currency, qualifies as an investment of money. The courts have held that it does. *See In re BitConnect Sec. Litig.*, No. 18-cv-80086, 2019 U.S. Dist. LEXIS 231976, at *21 (S.D. Fla. Aug. 23, 2019); *Beranger*, 2019 U.S. Dist. LEXIS 195107, at *7 (holding that an investment of BTC or ETH to purchase FLiK tokens qualified as an investment of money); *SEC v. Trendon T Shavers & Bitcoin Say. & Trust*, No. 4: 13-CV-416, 2014 U.S. Dist. LEXIS 194382, at *13-23 (E.D. Tex. Aug. 26, 2014) (holding that the acquisition of an interest in a bitcoin trading operation in exchange for payment of bitcoins constituted an investment contract). Courts have recognized that the required investment "need not be in cash, and refers more generally to an arrangement whereby an investor commits assets to an enterprise or venture in such a manner as to subject himself to financial losses." *Beranger*, 2019 U.S. Dist LEXIS 195107, at *7. Because under the exchanges' programs, users stake a valuable currency equivalent in exchange for the pledged interest payments, a court would likely find that these transactions constitute purchase agreements.

The second part of the question is whether users who staked ETH were risking any potential loss in the process. A court would likely find the answer is yes. Because users could not unstake or redeem the ETH staked until the Ethereum 2.0 network upgrade was completed in April 2023, there was an obvious risk of loss until that point. Because there was no guarantee that the Ethereum 2.0 network would successfully be completed, users who staked ETH through these exchanges faced a non-trivial risk of loss.

As to the second element of *Howey*, a common enterprise, the $325 million of ETH staked to launch Ethereum 2.0 would likely be considered a pooling of funds that would give rise to horizontal commonality. As the court held in *Kik Interactive*, the "key feature" defining a common enterprise "is not that investors must reap their profits" in a specific form or at the same time, but rather is "that investors' profits at any given time are tied to the success of the enterprise." 492 F.

Supp. 3d at 179. Specifically, "the nature of a common enterprise [is] to pool invested proceeds to increase the range of goods and services from which income and profits could be earned or, . . . to increase the range of goods and services that holders of [the digital asset] would find beneficial to buy and sell with [that digital asset]." *Id.*

A court would likely find that the ETH staked to the Ethereum 2.0 network satisfies this test. First, over 16,000 validators collectively staked $325 million, a threshold that was *required* for the launch of the Ethereum 2.0 network to occur. Second, the ETH created on the Ethereum 2.0 network could not be sent back to the original Ethereum blockchain, and it could not be used for any consumptive purposes on the Ethereum 2.0 network until the Paris update and the network merge. Rather, until the Paris update, the future value of the staked ETH, if any, turned entirely on the Ethereum Foundation completing the four promised phases of Serenity leading to the merging of the Ethereum mainnet and the Ethereum 2.0 network. Absent a merger of the two networks, the ETH held on the Ethereum 2.0 network would have no consumptive uses and no real value. Thus, these features lead naturally to the conclusion that the $325 million of staked ETH constitutes the pooling of funds to not just increase, but *create*, the goods and services that holders of the ETH on the Ethereum 2.0 network can use this asset for. In addition, as the Ethereum Foundation has explained, the launch of Ethereum 2.0 is necessary to allow for the scaling and sustainability of the Ethereum mainnet.

As to the third element, a reasonable expectation of profits, a court would likely find that validators have staked their 32 ETH with investment intent. Validators who stake 32 ETH to the network quickly begin earning rewards on their locked ETH in the form of annualized interest.[77] These rewards are distributed roughly every six minutes, which is the amount of time it is estimated for a new block to be created on the beacon chain.[78] Rewards are distributed directly into validators' accounts on Ethereum 2.0 as to those validators that actively attest to or propose a block.[79] By some estimates, validators can expect to earn roughly 20% interest on their staked ETH at the outset.[80] Further, the first investors to have staked an interest stood to earn higher interest on their investment at the outset than subsequent investors, because the percentage of interest each validator earns changes over time and decreases inversely in proportion to the total number of validators. Thus, the first investors stand to have captured the most value during the initial period when their stake was relatively greater, and thus their interest payments were relatively higher for the same task. Based on these facts, a court would likely conclude that investors staking ETH to this new network had a reasonable expectation of profits.

Finally, in evaluating the fourth element—whether the validators bear a reasonable expectation of profits based upon the entrepreneurial or managerial efforts of others—a court would likely consider the following facts. First, the ETH earned on the Ethereum 2.0 network was locked on this network until the merger with the Ethereum mainnet, and could not, at any point prior to the merge, be sent to the Ethereum mainnet. Second, no consumptive transactions or smart contracts could occur on the Ethereum 2.0 network until the merge. Third, the Ethereum 2.0 network did not have an existing marketplace where the earned ETH tokens were accepted for

[77] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[78] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[79] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.
[80] Kim, *Ethereum 2.0: How It Works and Why It Matters*, *supra* note 1, at 9.

consumptive use until the merge. Accordingly, the value of the ETH tokens earned as interest payments was entirely speculative, and the future value turned entirely on the Ethereum Foundation successfully executing on its four-phase plan leading to the merging of the Ethereum 2.0 network with the Ethereum mainnet.[81] Now that the plan has been completed, these tokens stand to have a greater value (potentially significantly greater value), because the merged Ethereum network has greater capabilities—most notably vastly increased scalability. That potential value is substantial.[82] If the Ethereum Foundation had failed, the tokens could ultimately have been worthless.

Further, the Ethereum Foundation, in its promotional materials supporting the Ethereum 2.0 network, laid out the four-phase plan that ultimately resulted in the promised merging of Ethereum 2.0 and the Ethereum mainnet, and promised that this plan would "make Ethereum more scalable, more secure, and more sustainable."[83] The Foundation further represented that these upgrades were "necessary to unlock Ethereum's full potential."[84] In addition, the Ethereum Foundation's employed developers have taken predominant responsibility for building out the Ethereum 2.0 network.[85] It is well understood that the value of ETH tokens turn heavily on whether the network can in fact scale, because the network's capabilities are significantly limited by its present scaling limitations—which cause slow transaction times and high transaction fees.[86] Furthermore, both the Ethereum Foundation and Buterin have repeatedly publicly promoted the Ethereum Foundation's investment in building out the Ethereum 2.0 network as solutions to these problems.[87] Thus, the promise of scalability is a promise of significant future value. That value

[81] YouTube, Bankless (Nov. 30, 2020), https://www.youtube.com/watch?v=yB-esIN73TU&feature=youtu.be (interview with Vitalik Buterin) ("There is definitely wide community buy in and confidence . . . $300 million worth of people locking up their Eth potentially never to see it again unless ether delivers or we find some further thing to do to make those coins and deposits actually valuable again so in some sense it's the ultimate bet on progress[.]")
[82] As an anchor point, the current price for a single ETH token as of December 23, 2020 is $587. Coindesk, Ethereum, https://www.coindesk.com/price/ethereum.
[83] *Upgrading Ethereum to radical new heights*, Ethereum Foundation, https://ethereum.org/en/eth2/.
[84] The *ETH2 Vision: a digital future on a global scale*, Ethereum Foundation, https://ethereum.org/en/eth2/vision/; Twitter, Vitalik.eth (Nov. 25, 2020), https://twitter.com/VitalikButerin/status/1331481962276524040.
[85] YouTube, Coinbase Speaker Series (Nov. 21, 2020) https://www.youtube.com/watch?v=shEeqqPqF50&feature=youtu.be (Vitalik answers question about what the Ethereum Foundation does, stating, "Directly there is obviously just operations of the Ethereum Foundation itself . . . there is a research team, that is mainly the team building the ethereum 2 specs . . . there are the people building solidity[.] There is also a lot of smaller . . . projects[.]"); GitHub, Ethereum 2.0 Contributors, https://github.com/ethereum/eth2.0-specs/graphs/contributors; LinkedIn, Diederick Loerakker, https://www.linkedin.com/in/diederik-loerakker/?originalSubdomain=nl (self-describing as "Platform architect, R&D at Ethereum Foundation, building Ethereum 2.0").
[86] The ETH2 Vision: a digital future on a global scale, Ethereum Foundation, https://ethereum.org/en/eth2/vision/ ("High demand is driving up transaction fees that make Ethereum expensive for the average user.").
[87] See, e.g., The ETH2 Vision: a digital future on a global scale, Ethereum Foundation, https://ethereum.org/en/eth2/vision/ ("High demand is driving up transaction fees that make Ethereum expensive for the average user. The disk space needed to run an Ethereum client is growing at a fast rate. And the underlying proof of work consensus algorithm that keeps Ethereum secure and decentralized has a big environmental impact. What is commonly referred to as Eth2 is a set of upgrades that address these problems and more. Now that the technology is ready, these upgrades will rearchitect Ethereum to make it more scalable, secure, and sustainable — to make life better for existing users and entice new ones[.]"); Vitalik Buterin, An Incomplete Guide to Rollups, VITALIK.CA (Jan. 05, 2021), https://vitalik.ca/general/2021/01/05/rollup.html (Emphasizing the effect rollups will have on scalability in Ethereum and its future development); Bankless, Vitalik Buterin on Why Proof of Stake?, at 9:15 (Jan. 4, 2021) (downloaded using spotify) (stating that becoming a validator is the "ultimate bet on progress" and equating

Footnote continued on next page

turned predominantly on the work of the Ethereum Foundation itself and its ability to achieve the four-phase plan promised on the ethereum.org website.

Based on these facts, a court might reasonably find that the token's market value would depend heavily on the efforts of the Ethereum Foundation. As Ethereum's developers presumably continue to build out, improve, and administer updates to the network and distribution of ETH post-launch, a court is likely to find that Ethereum 2.0 validators are heavily reliant on the efforts of the Ethereum Foundation for their ETH token holdings on the Ethereum 2.0 network to have *any* value, let alone to appreciate in value. *Telegram*, 448 F. Supp. 3d at 375-376; *accord Beranger*, 2019 U.S. Dist. LEXIS 195107, at *8-9; *Zaslavskiy*, 2018 U.S. Dist. LEXIS 156574, at *20-21.

Accordingly, there are, at present, compelling reasons to conclude that the SEC and federal courts are likely to decide that the launch and buildout of the Ethereum 2.0 network constitutes an investment contract under *Howey*.

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the launch of eth2, to the launch of Ethereum and its meteoric rise in value); Twitter, Vitalik.eth (Nov. 27, 2020), https://twitter.com/VitalikButerin/status/1332225806865555456; Twitter, Vitalik.eth (Nov. 25, 2020), https://twitter.com/VitalikButerin/status/1331481962276524040 (responding to anti-Ethereum arguments regarding ETH's high fees by emphasizing that the first phase of eth2 solves those issues); YouTube, Coinbase Speaker Series (Nov. 21, 2020), https://www.youtube.com/watch?v=shEeqqPqF50&feature=youtu.be ("Ethereum 2 is this big sprawling effort to mainly make 2 upgrades to ethereum, one of them is switching the consensus from proof of work to proof of stake, which we believe to be much more energy efficient, much less tree killing, require much less issuance and all of those things, and at the same time more secure than proof of work . . . and the other big piece is sharding, which is a scalability upgrade, which basically means that you don't need every node to process every transaction . . . and this way we can increase the blockchain's throughout from about 15 transactions a second to many tens of thousands of transactions per second."); Twitter, Vitalik.eth (Nov. 18, 2020), https://twitter.com/VitalikButerin/status/1329297577439760384 (amplifying his own comment that Eth2 Validators should invest because they believe in its future potential); Vitalik Buterin (@Vitalik.eth), Twitter, Vitalik.eth (Nov. 11, 2020 8:47 PM), https://twitter.com/VitalikButerin/status/1326718334914732033 (stating Eth2 successfully launches scaling with rollups to support thousands of transactions per second); Twitter, Vitalik.eth (Oct. 13, 2020 12:27 AM), https://twitter.com/VitalikButerin/status/1315886921562742784 (stating that transactions fees of $10-40 are too high, which is why Ethereum is "working on scalability to bring fees down."); Twitter, Vitalik.eth (Oct. 4, 2020 7:02 AM), https://twitter.com/VitalikButerin/status/1312905882330521600 (recapping Ethereum's solutions to scaling including with sharding and rollups in eth2 phase one); Twitter, Vitalik.eth (Aug. 12, 2020 8:28 AM), https://twitter.com/VitalikButerin/status/1293539888927617031 (declaring "the master plan" to getting low fees per transaction and high total fees per day is scalability, rollups, and sharding); Twitter, Vitalik.eth (Aug. 5, 2020 11:03 PM), https://twitter.com/VitalikButerin/status/1291223375667326976 (responding to an allegation Ethereum is akin to a Ponzi scheme by declaring "Ethereum is rising, proof of stake and sharding are rising, and rollups are here. . . "); Unchained, Vitalik Buterin on Ethereum's Five-Year Anniversary, at 7:59; 20:47 (Jul. 28, 2020) (downloaded using Spotify) (Buterin emphasizes sharding's effect on eth2 and later discusses focusing on monetary policy and balancing between maximizing the value of eth, and focusing on the value of eth as a necessity for security); Danny Ryan, The State of Eth2, June 2020, Ethereum (June 2, 2020), https://blog.ethereum.org/2020/06/02/the-state-of-eth2-june-2020/ (highlighting developments of eth2 and stating "[t]his is a unique chance to get in on the ground, to help influence the vision over time, and to receive a higher ETH reward for being an early adopter); Twitter, Danny Ryan (@djrtwo), Reddit (Jan. 24, 2019 8:47 PM), https://www.reddit.com/r/ethereum/comments/ajc9ip/ama we are the eth 20 research team/eeucd4f/?utm source=reddit&utm medium=web2x&context=3 (Stating that "Validators will move to eth2 to seek profit by providing security and resources[,]" and also promoting the scalability which "will show clear economic benefits to the users.").

B. Application of Digital Asset Securities Case Law to Ethereum 2.0 Staking Program

Further, particularly given the SEC's recent arguments in the Coinbase and Binance complaints, any exchange that facilitates the staking of ETH to the Ethereum 2.0 network facilitates the sale of unregistered securities.

As to the first element under Howey, a court would likely find that exchange users who stake ETH to the Ethereum 2.0 network through the exchanges' programs have made an investment of money through the platforms.

As discussed above in Part II.A, a court would likely ask whether the recipient gave any consideration under the contract that would be considered an exchange for value. *Int'l Bhd. Of Teamsters v. Daniel*, 439 U.S. 551, 559 (1979) (stating "[i]n every decision of this Court recognizing the presence of a 'security' under the Securities Acts, the person found to have been an investor chose to give up a specific consideration in return for a separable financial interest with the characteristics of a security"). Because the validators have staked a valuable currency equivalent, with a risk of loss, in exchange for the pledged interest payments, a court would likely find that this transaction constitutes a purchase agreement.

The second part of the question is whether users who stake ETH through these exchanges are risking any potential loss in the process. A court would likely find the answer is yes for the same reasons provided in Part II.A. One such exchange, Kraken, explicitly recognized this risk of loss, as it added the following disclaimer on its blog article on ETH 2.0 staking: "[u]nderstand that, unlike regular proof-of-stake protocol, staked ETH and ETH staking rewards will be locked until the Ethereum 2.0 network upgrade is complete. This transition is expected to evolve over multiple 'phases' and may take several years to complete, or *may never be completed*. Kraken has no control whatsoever over this process. In the event the Eth2 network upgrade is delayed or cannot be completed, *you may be unable to access, withdraw, or transfer your assets on-chain indefinitely*."[88] Kraken has since reached a settlement agreement with the SEC and terminated its on-chain Ethereum staking program for ETH.[89]

As to the second element of Howey, a common enterprise, a court would likely find as to those users who stake fewer than 32 ETH that these platforms have engaged in pooling of funds that would give rise to horizontal commonality, because these exchanges can only participate as a validator by staking exactly 32 ETH. The horizontal commonality test requires a showing of "pooling of investors' contributions and distribution of profits and losses on a pro-rata basis among investors." *SEC v. Infinity Grp. Co.*, 212 F.3d 180, 188 (3d Cir. 2000). Typically, this showing is met by investors contributing assets of some sort to the main promoter, who holds and pools those assets together to further the enterprise. As the court held in *Kik Interactive*, "the nature of a common enterprise [is] to pool invested proceeds to increase the range of goods and services from which income and profits could be earned or, . . . to increase the range of goods and services that

[88] Kraken, *Ethereum (ETH) Staking & the Ethereum 2.0 network upgrade*, https://support.kraken.com/hc/enus/articles/360053188871 (emphasis added).
[89] U.S. Securities & Exchange Commission Press Release, *Kraken to Discontinue Unregistered Offer and Sale of Crypto Asset Staking-As-A-Service Program and Pay $30 Million to Settle SEC Charges* (Feb. 9, 2023), https://www.sec.gov/news/press-release/2023-25.

holders of [the digital asset] would find beneficial to buy and sell with [that digital asset]." *Kik Interactive*, 492 F. Supp. 3d at 179.

As to those users who stake fewer than 32 ETH through these exchanges, a court is likely to find horizontal commonality satisfied. These exchanges presumably pool those funds together with ETH staked by other users (or with its own ETH holdings) to reach the 32-ETH threshold required to be a validator. Outside of pooling ETH held by the exchange, there would be no other way for the exchange to stake the ETH of a user who contributes fewer than 32 ETH, as a minimum of 32 ETH is required to become a validator on the Ethereum 2.0 network. A validator also needs "hardware equipment[] and additional finances for node operation costs."[90] By pooling funds together, these exchanges may become validators and earn ETH rewards for all users who participate in the pool. Accordingly, a court would likely find horizontal commonality.

Under certain circumstances, a court could also find vertical commonality. One test for vertical commonality turns on whether the success of the investors depends on the efforts of the promoters. *SEC v. SG Ltd.*, 265 F.3d 42, 49-50 (1st Cir. 2001). A stricter version of vertical commonality used by some courts requires proof that the promoters of the asset hold a significant stake in the asset, such that they would be incentivized to support the asset's value. *See Revak v. SEC Realty Corp.*, 18 F.3d 81, 87-88 (2d Cir. 1994). Here, the SEC might plausibly be able to establish the stricter version of vertical commonality to the extent that these exchanges have staked a significant quantity of their own ETH holdings to the Ethereum 2.0 network.

As to the third element, a reasonable expectation of profits, there are several factors that would support a finding that the users who stake ETH through these exchanges have an expectation of profits. These exchanges generally offer their customers rewards between 5-20 percent per year.[91] As the exchanges receive validator rewards on the Ethereum 2.0 network, users who stake through the exchanges will receive a share of those rewards proportional to their relative stake of 32 ETH.[92] Accordingly, users who stake ETH to the Ethereum 2.0 network through these exchanges would reasonably expect profits through their validator rewards.

Finally, the SEC and courts are likely to find the fourth element likewise satisfied. This element asks whether the users who stake via these platforms bear a reasonable expectation of profits based upon the entrepreneurial or managerial efforts of others. In evaluating this element, a court would likely consider the role the exchanges play in these staking programs. To run a validator node on the Ethereum 2.0 network, one needs "hardware equipment[] and additional finances for node operation costs."[93] These exchanges have offered to provide these resources, post themselves as the validators on behalf of their users, and, under certain circumstances, bear the risk of on-chain penalty and forfeiture in the event that the validator goes idle, engages in

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[90] *See* Binance, *Binance ETH 2.0 Staking*, https://www.binance.com/en/support/faq/eecd04618b5042c79f2a5b07f895c498.
[91] Kraken, Ethereum 2.0 Staking FAQ, https://support.kraken.com/hc/en-us/articles/360052734432-Ethereum-2-0 staking-FAQ; Binance, *Binance Supports ETH-2.0 Staking*, https://www.binance.com/en/blog/all/binance-supports-eth-20-staking-4214998246849013 02.
[92] Kraken, *Terms of Service*, Annex C, Addendum: Staking Services ("Staking Addendum"), https://www.kraken.com/en-us/legal; Binance, *Binance Staking—ETH 2.0*, https://www.binance.com/en/eth2.
[93] *See* Binance, *Binance ETH 2.0* staking, https://www.binance.com/en/support/faq/eecd04618b5042c79f2a5b07f895c498.

malicious conduct, or fails to validate while their ETH is staked to the Ethereum 2.0 network.[94] A court may thus reasonably find that the chance of obtaining the validator rewards available to Ethereum 2.0 validators depends heavily on the efforts of these exchanges to (i) provide the resources and hardware required to run the node and (ii) ensure that the validator does not go idle, fail to validate, or engage in malicious conduct that would result in forfeiture of the ETH staked to the new network.

While the technology and financial instrument is entirely novel, existing securities law have a longstanding history of applying to novel financial instruments. To the extent that the exchanges' programs allow U.S. users to participate,[95] the facts above would reasonably support the SEC and federal courts concluding that the exchanges' programs constitute investment contracts under *Howey*.

[94] Kraken, *Terms of Service*, Annex C, Addendum: Staking Services ("Staking Addendum"), Slashing Penalty, https://www.kraken.com/en-us/legal ("A determination by the Supported Protocol that the Staking Service has been erroneously operated may result in a "slashing penalty" and non-payment of the specified Staking Rewards. Kraken agrees to compensate you for any slashing penalties to the extent such penalties are not a result of (i) your acts or omissions, (ii) Supported Protocol maintenance, bugs, or errors, (iii) acts by a hacker or other malicious actor, or (iv) Force Majeure Events."); Binance, *Binance Supports ETH-2.0* Staking, https://www.binance.com/en/blog/all/binance-supports-eth-20-staking-421499824684901302.

[95] The Supreme Court has held that U.S. securities laws do not extend to overseas transactions that do not involve U.S. purchasers, U.S.-based sellers, and/or U.S.-based exchanges. *Morrison v. Nat'l Austl. Bank Ltd.*, 561 U.S. 247, 266-68, 273 (2010). Kraken's platform appears to allow U.S. users to participate as long as the user has entered the KYC information required for a Starter Account. Binance.us, Binance's U.S. platform, does not allow users to participate presently. However, Binance.com allows users to participate and may be accessible to U.S. users who deploy a VPN to circumvent Binance's geoblocking tool. Binance's CEO, CZ, had previously encouraged U.S. users to use VPNs to circumvent the company's geoblocking software.