Chapter 8A

Decentralized Finance (DeFi)

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§ 8A:1 Introduction

Decentralized Finance (DeFi) is an umbrella term used to describe financial services provided outside of the traditional markets, that rely on blockchain technologies to create innovative products instead of relying on central intermediaries. While there are a vast number of DeFi use cases (for example, lending and insurance), this chapter will focus on the use of DeFi to offer various crypto asset products and services.

DeFi presents some risks, including those seen in the traditional financial services markets, such as susceptibility to fraud and money laundering, and others specific to DeFi itself, such as vulnerability to cybersecurity attacks.[1] These risks combined with the increased use of DeFi products and services has resulted in an increased focus on DeFi by regulators. In particular, regulators have signaled increasing interest in DeFi over the last several years, asserting jurisdiction through enforcement actions and proposed rulemaking.

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1. For instance, in February 2022, Wormhole, a DeFi bridging service between blockchains, was hacked and lost over $300 million. In August 2023, hackers stole approximately $62 million from Curve Finance, one of the largest decentralized exchanges. Some estimate that over 80% of all stolen cryptocurrency stemmed from attacks against DeFi protocols. TRM LABS, DE-FI, CROSS-CHAIN BRIDGE ATTACKS DRIVE RECORD HAUL FROM CRYPTOCURRENCY HACKS AND EXPLOITS (Dec. 16, 2022), https://www.trmlabs.com/post/defi-cross-chain-bridge-attacks-drive-record-haul-from-cryptocurrency-hacks-and-exploits.

Legislators are also focused on DeFi. For example, a draft bill, sponsored by Reps. McHenry and Thompson, passed the House Financial Services Committee in late July 2023. The bill would divide responsibility for regulating crypto asset intermediaries between the Securities and Exchange Commission ("SEC" or "Commission") and the Commodity Futures Trading Commission (CFTC) and would require those regulators to conduct a joint study on DeFi.[2] And internationally, new legal frameworks are emerging in response to the growth in DeFi markets.

The legal and regulatory landscape around DeFi and blockchain technologies, both in the United States and globally, is fluid and continues to evolve. The following discussion provides an overview of DeFi products and services, and describes the approaches taken by the SEC and CFTC to attempt to regulate DeFi.

§ 8A:2 What Are DeFi Use Cases?

As noted above, DeFi is an umbrella term that can encompass a wide variety of uses. For example, certain DeFi applications allow users to make crypto assets payments in ways that are functionally similar to payments in traditional finance.[3] The Flexa Capacity application facilitates real-time payments between users and merchants using crypto assets without the need for traditional banking intermediaries.[4]

DeFi lending and borrowing protocols allow those with crypto assets (lenders) to loan those assets out to individuals (borrowers) via smart contracts instead of using a central intermediary.[5] Rather than borrowers seeking loans through centralized intermediaries, a DeFi lending protocol will use its available liquidity to facilitate loans through smart contracts.[6]

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2. H.R. 4763, Financial Innovation and Technology for the 21st Century Act.
3. FRANCESCA CARAPELLA, ET AL., FED. RESERVE BD., DECENTRALIZED FINANCE (DEFI): TRANSFORMATIVE POTENTIAL & ASSOCIATED RISKS 12 (2022).
4. *Id.*; *see also* FLEXA, ANNOUNCING FLEXA CAPACITY (Nov. 19, 2019), https://medium.com/flexa/announcing-flexa-capacity-35c62ade9522.
5. Johnathan Chiu, et al., On the Fragility of DeFi Lending 3 (Bank of Canada Working Paper), https://www.bankofcanada.ca/wp-content/uploads/2023/02/swp2023-14.pdf.
6. Oracles connect smart contracts to information and resources outside of their corresponding blockchain. Lawrence Wintermeyer, *Oracles: The Invisible Backbone of DeFi and Applied Blockchain Apps*, FORBES (Oct. 14, 2021), https://www.forbes.com/sites/lawrencewintermeyer/2021/10/14/cryptohacks-oraclesthe-invisible-backbone-of-defi-and-applied-blockchain-apps/?sh=345a909b182d.

DeFi insurance, also known as "DeFi cover," is a catch-all term that refers to products that protect against the unique risks present in DeFi[7] (for example, protocol smart contract exploits). Instead of insurance policies provided by centralized intermediaries, DeFi insurance protocols allow users to enter into a policy using smart contracts and oracles that is programmed to automatically submit payment to the insured when a covered event occurs. DeFi insurance protocols pay covered claims from a pool of crypto assets funded by the insured users' premium payments.[8]

§ 8A:3 How Is DeFi Regulated?

To date, there has been no DeFi specific regulation in the United States. Instead, U.S. regulators have generally used their existing authorities aimed at centralized actors to exercise oversight over DeFi. While proponents of DeFi have advocated for specifically tailored regulation,[9] this would require the adoption of new rules and perhaps even new legislation.

As further described below, the SEC and CFTC have both indicated they intend to use their existing authorities to oversee DeFi. As a result, it is critical for market participants to understand if their DeFi-related activities could trigger SEC or CFTC jurisdiction.

Although not the focus of this chapter, DeFi may also fall within the jurisdiction of other regulators. For example:

- In May 2019, the U.S. Department of the Treasury's ("Treasury Department") Financial Crimes Enforcement Network ("FinCEN") issued interpretive guidance on the application of FinCEN's regulations relating to money services businesses that are involved in the transmission of virtual currencies.

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7. DeFi insurance providers attempt to distinguish themselves from traditional insurance providers by using the term "cover," and classifying their products as discretionary (left to the discretion of a voting or approval mechanism) as opposed to contractual. OPENCOVER, THE STATE OF DEFI INSURANCE ALTERNATIVES (2023), https://opencover.com/reports/the-state-of-defi-insurance-alternatives-defi-cover-2023.pdf [hereinafter State of DeFi Insurance Alternatives], at 6, 36.
8. IOSCO Decentralized Finance Report, International Organization of Securities Commissions [hereinafter IOSCO DeFi Report], at 20; Max Bijkerk, *DeFi Insurance Simply Explained*, BLOCKDATA (Dec. 8, 2021), https://www.blockdata.tech/blog/general/defi-insurance-simply-explained.
9. For example, the DeFi Education Fund advocates for the passage of new legislation to cover DeFi. *See e.g.*, Letter to 118th Congress for the DeFi Education Fund Team, https://www.defieducationfund.org/_files/ugd/e53159_05af128a77fa4de9931f22941857a63b.pdf.

The guidance covers a number of business models relevant to DeFi, including hosted and unhosted wallets, and anonymizing services and software providers.[10]

- On April 9, 2023, the Treasury Department published its 2023 DeFi Illicit Finance Risk Assessment, which outlines its concerns regarding the use of DeFi and its role in potential money laundering and terrorist financing activity.[11] The Treasury Department makes note that irrespective of the "decentralization" of a DeFi service, the Bank Secrecy Act obligations related to anti-money laundering and countering terrorism financing apply if the DeFi service qualifies as a money services business.[12]
- On August 25, 2023, the Treasury Department and Internal Revenue Service released proposed regulations on the sale and exchange of crypto assets by brokers.[13] The proposed regulations are aimed at the taxation of certain crypto asset transactions (that is, the difference between tax owed and tax paid) by providing further clarity on existing reporting requirements and specifically requiring reporting by third-party intermediaries of transactions relating to crypto assets. The proposed regulations would potentially bring within the reporting requirements certain DeFi platforms and wallet providers.

§ 8A:4 Evolving Regulatory Approaches

§ 8A:4.1 SEC

[A] Intent to Regulate

Broadly speaking, the SEC has jurisdiction over securities and the securities markets. On July 25, 2017, the SEC issued the *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO* ("DAO Report"), one of the SEC's first formal

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10. Application of FinCEN's Regulations to Certain Business Models Involving Convertible Virtual Currencies, FIN-2019-G001, at 19–20 (May 9, 2019).
11. U.S. Dep't of the Treas., 2023 DeFi Illicit Finance Risk Assessment (Apr. 9, 2023), https://home.treasury.gov/system/files/136/DeFi-Risk-Full-Review.pdf.
12. *Id*. at 7.
13. Gross Proceeds and Basis Reporting by Brokers and Determination of Amount Realized and Basis for Digital Asset Transactions, 88 Fed. Reg. 59,576 (proposed Aug. 29, 2023).

statements regarding the applicability of federal securities laws to crypto.[14] While the DAO Report was principally focused on the registration of crypto asset securities being offered and sold to the investing public, the SEC advised that activities involving crypto asset securities would also require registration pursuant to the federal securities laws (for example, registration as a broker-dealer or national securities exchange).[15] In the DAO Report's concluding statements regarding the issuance of crypto assets, the SEC noted that the registration requirements apply to both traditional organizations and decentralized autonomous organizations (DAOs).[16]

A DAO is a type of organization that is similar to a traditional corporate entity but operates through a set of smart contracts.[17] The utilization of smart contracts allows a DAO to operate without a central authority or third-party intermediary.[18] DAOs are generally the entities that create and operate DeFi products and applications such as decentralized exchanges (DEXs), which utilize blockchain technology to allow users to trade or swap crypto assets in exchange for other crypto assets or stablecoins, and lending protocols (described above).

While certain proponents of DeFi suggest the lack of a centralized entity or control person absolves or makes impractical the ability to register with the SEC, current SEC Chair Gary Gensler as well as other SEC officials have made it clear that they believe DeFi is not as "decentralized" as the industry often characterizes it. In terms of evaluating the extent of decentralization, Chair Gensler noted: "[t]here's still a core group of folks that are not only writing the software, like the open source software, but they often have governance and fees . . . [t]here's some incentive structure for those promoters and sponsors in the middle of this."[19] Based upon these statements, the SEC is likely to see a DeFi offering as more "centralized" if it exhibits these characteristics.

On November 9, 2021, SEC Commissioner Caroline A. Crenshaw issued a *Statement on DeFi Risks, Regulations, and Opportunities*, noting that while the technology may be novel, DeFi products

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14. Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Release No. 81207 (July 25, 2017).
15. *Id*. at 18.
16. *Id*.
17. IOSCO DeFi Report, *supra* note 8, at 24.
18. *Id*.
19. Dave Michaels & Paul Kiernan, *Crypto's 'DeFi' Projects Aren't Immune to Regulation, SEC's Gensler Says*, WALL ST. J. (Aug. 19, 2021), https://www.wsj.com/articles/cryptos-defi-projects-arent-immune-to-regulation-secs-gensler-says-11629365401.

resemble traditional financial products and have "close analogs within the SEC's jurisdiction."[20] Commissioner Crenshaw specifically identified DeFi services such as secondary market trading, lending products, high-yield DeFi instruments (offering the ability to earn fees in return for supplying liquidity), or market making as activities that closely track regulated traditional financial services.[21] Commissioner Crenshaw stated that no DeFi participants have registered with the SEC and encouraged DeFi participants to engage with the SEC staff.[22] To that end, Commissioner Crenshaw advised that the SEC has an effective enforcement mechanism to target noncompliant issuers and services and expected the Commission to exercise its enforcement capabilities.[23]

The SEC in both its statements and actions, and as further shown below, has made it clear to the crypto industry that it believes DeFi applications and services currently fall within the scope of existing federal securities laws. In particular, the SEC has proposed amendments to certain rules that would capture DeFi if adopted.

[B] Rulemaking

Central to the SEC's claims of jurisdiction over DeFi activities is the question of whether a crypto asset is sold as a "security." SEC officials have asserted broad authority over the crypto industry, stating that almost all crypto assets are securities,[24] based on the theory that they constitute "investment contracts" (a type of security) pursuant to the test set forth in *SEC v. W.J. Howey Co.*[25] While the SEC's position is that nearly all crypto assets are securities, this view has not been fully embraced by the courts in pending cases where this question is at issue.[26] Should crypto assets be found to have been sold as securities, depending on the assets and services provided, DeFi participants that facilitate transactions in these assets may be required to register with the SEC.

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20. Caroline A. Crenshaw, SEC Comm'r, Statement on DeFi Risks, Regulations, and Opportunities (Nov. 9, 2021), https://www.sec.gov/news/statement/crenshaw-defi-20211109.
21. *Id*.
22. *Id*.
23. *Id*.
24. *See, e.g.*, Ankush Khardori, *Can Gary Gensler Survive Crypto Winter? D.C.'s Top Financial Cop on Bankman-Fried Blowback*, N.Y. MAG. (Feb. 23, 2023).
25. SEC v. W.J. Howey Co., 328 U.S. 293 (1946).
26. *See* SEC v. Ripple Labs, Inc. et al., No. 20 Civ. 10832 (S.D.N.Y. July 13, 2023); SEC v. Terraform Labs Pte. Ltd., No. 23 Civ. 01346 (S.D.N.Y. July 31, 2023).

In 2022, the SEC proposed two rules that would directly implicate DeFi activities should they be adopted. The first—the SEC's proposed rule amending the definition of an exchange under Securities Exchange Act of 1934 ("Exchange Act") Rule 3b-16 received much publicity in the crypto industry. The second proposed rule—the SEC's proposed rule to further define the statutory definition of a "dealer" under Exchange Act section 3(a)(5)—received less attention, but still potentially impacts DeFi liquidity providers. As of September 2023, the comment periods for both proposed rules have closed, but neither rule has been adopted. Each rule is described in more detail below.

[B][1] "Exchange" Rule Proposal

In January 2022, the SEC released its initial proposed amendment to Exchange Act Rule 3b-16 seeking to implement a number of changes, but as most relevant to DeFi activities, it seeks to expand the definition of an exchange to apply to "Communication Protocol Systems."[27]

Currently, Rule 3b-16(a) defines an exchange as an organization, association, or group of persons that (1) brings together the orders for securities of multiple buyers and sellers; and (2) uses established, nondiscretionary methods under which such orders interact with each other, and the buyers and sellers entering such orders agree to the terms of a trade.[28]

Communication Protocol Systems in the proposed rule was broadly defined to include various technologies and non-firm trading interest as a method to guide buyers and sellers to communicate, negotiate, and agree to the terms of a trade.[29] As a result of the broad proposed definition, which could capture anything from request-for-quote systems to instant chat message services, there was a concern that Communication Protocol Systems would apply to DeFi even though the SEC did not identify a DeFi protocol or application as an example of a Communication Protocol System. As a result, during the initial comment period, industry participants asked the SEC for additional clarity as to the applicability of the proposed term to DeFi systems and blockchain technology.[30]

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27. *See* Amendments to Exchange Act Rule 3b-16 Regarding the Definition of "Exchange"; Regulation ATS for ATSs That Trade U.S. Government Securities, NMS Stocks, and Other Securities; Regulation SCI for ATSs That Trade U.S. Treasury Securities and Agency Securities, Exchange Act Release No. 94062 (Jan. 26, 2022) [hereinafter Initial 3b-16 Proposal].
28. 17 C.F.R. § 240.3b-16.
29. *See* Initial 3b-16 Proposal, *supra* note 27, at 17.
30. *See* Comments on Amendments Regarding the Definition of "Exchange" and Alternative Trading Systems (ATSs) That Trade U.S. Treasury and

In response to a significant number of comments directed at the proposed amendment's application to DeFi systems and using blockchain technology, the SEC re-opened its proposed rule on April 14, 2023. Notably, the re-opened proposal almost exclusively focused on the regulatory capture of DeFi systems and blockchain technology pursuant to the proposed rule amendment. In doing so, the SEC explicitly stated that its proposed rule addresses the functions performed by a trading system, not the type of technology used to perform such function. Therefore, according to the SEC, DeFi systems that would satisfy the amended Exchange Act Rule 3b-16 definition would be operating as an exchange and would be required to register as a national securities exchange or comply with an applicable exemption (that is, Regulation ATS).[31] SEC staff identified functions currently performed by DeFi systems that would satisfy the amended definition, which include facilitating price discovery, sourcing liquidity, identifying counterparties, and providing the means to agree upon the terms of a crypto asset securities transaction.[32]

In further support of the SEC's view that DeFi systems would satisfy the amended definition of an exchange, it stated that DeFi protocols can be considered a "group of persons" by citing that the systems can potentially involve multiple persons, including "provider(s) of the DeFi application or user interface, developers of [automated market makers (AMMs)] or other [distributed ledger or blockchain] code, [DAOs], validators or miners, and issuers or holders of governance or other tokens."[33]

This broad capture of "persons" subject to the proposed amendment seemingly blurs the distinction between the functions and services autonomously provided by a DeFi protocol versus the services offered by a group of persons providing an interface or application that allows users to interact with a DeFi protocol. The SEC's broad interpretation of "group of persons" may therefore implicate persons who

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Agency Securities, National Market System (NMS) Stocks, and Other Securities, Exchange Act Release No. 34-94062, https://www.sec.gov/comments/s7-02-22/s70222.htm.

31. *See* Securities Exchange Act Release No. 97309 (Apr. 14, 2023).
32. *See* Initial 3b-16 Proposal, *supra* note 27, at 12.
33. *Id*. at 27. AMM DEXs, instead of facilitating transactions between buyers and sellers, allow customers to execute transactions against a pool of tokens, commonly known as "liquidity pools." Retail or institutional participants who deposit crypto assets into a liquidity pool are known as liquidity providers or "LPs." Instead of best bid or ask prices, an AMM uses a mathematical formula that determines an exchange rate for an asset based upon the ratio of assets in the respective liquidity pools of the assets being swapped.

cannot exercise control of a DeFi protocol once deployed, such as an independent software developer.

[B][2] "Dealer" Rule Proposal

On March 28, 2022, the SEC released a proposed rule amending the definition of "dealer." Dealer is defined as any person, which includes a natural person or corporate entity, who is engaged in the business of buying and selling securities for its own account.[34] The Exchange Act statutorily excludes from the definition persons that buy and sell securities for their own account but not as part of a regular business.[35] This statutory exclusion is commonly referred to as the "trader" exclusion.

The SEC proposed to modify the "trader" exclusion and what it means to buy and sell securities for one's own account "but not as a part of regular business."[36] The proposed rule identifies qualitative standards that address with greater particularity dealer-like activities, "specifically, persons whose trading activity in the market 'has the effect of providing liquidity' to other market participants."[37] While the proposed rule does not explicitly identify DeFi activities, the amendments apply to crypto asset securities and potentially capture market-making and liquidity providing activities on DEXs or other DeFi applications.[38]

The SEC identified dealer-like activities that include "earning revenue primarily from capturing bid-ask spreads, by buying at the bid and selling at the offer, or from capturing any incentives offered by trading venues to liquidity-supplying trading interests."[39]

The SEC's focus on liquidity compensation arrangements is one example of how the rule could extend to DeFi activities because

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34. 15 U.S.C. § 78c(a)(5)(a).
35. *Id*. § 78c(a)(5)(b).
36. *See* Proposed Rule: Further Definition of "As a Part of a Regular Business" in the Definition of Dealer and Government Securities Dealer, Exchange Act Release No. 94524 (Mar. 28, 2022); *see also* 15 U.S.C. § 78c(a)(5). The Exchange Act does not define what it means to be engaged in a "regular business."
37. Exchange Act Release No. 94524, at 30. Factors the SEC currently evaluates for dealer activity include "(1) acting as a market maker or specialist on an organized exchange or trading system; (2) acting as a de facto market maker or liquidity provider; and (3) holding oneself out as buying or selling securities at a regular place of business." *Id*. at 19.
38. *Id.; see also* Definition of Terms in and Specific Exemption for Banks, Savings Associations, and Savings Banks Under Sections 3(a)(4) and 3(a)(5) of the Securities Exchange Act of 1934, Exchange Act Release No. 46745 (Oct. 30, 2002).
39. Securities Exchange Act Release No. 94524, at 42.

liquidity providers on DEXs typically are compensated by either capturing the spread or capturing fee incentives offered by the DEX. Notably, in contrast to traditional financial markets, liquidity providers on DEXs may include natural persons in addition to legal entities, and these persons could potentially be captured based on the breadth of the proposed rule. Although the proposed rule attempts to exempt smaller participants, meaning persons that have or control less than $50 million in total assets, it would not be an exclusion from the Exchange Act's statutory definition of dealer. Rather, the SEC stated that whether a person who has less than $50 million in total assets acts as a dealer remains a facts and circumstances analysis.[40] As a result, small liquidity providers on a DEX, including natural persons, could be required to register a dealer if the proposed rule is adopted.

Again, while the proposed rule does not explicitly identify DeFi activities, the language used in the proposed rule indicates its intended breath of capture. The SEC states that the proposed rule is "designed to capture dealer activity wherever that activity occurs, whether on a national securities exchange, an ATS, a Communication Protocol System, or another form of trading venue."[41] While the proposed rule amending the definition of a dealer was released prior to the re-opened proposed rule amending the definition of an exchange, the common use of the term "Communication Protocol System" in both proposals suggests the SEC is attempting to capture DeFi liquidity providing activities in the dealer proposal.

[C] Enforcement

As noted above, the SEC has taken the broad view that most crypto assets are sold as securities. As a result of this view, DeFi participants should assess whether they are offering assets or providing services that could trigger SEC registration under the Securities Act of 1933 ("Securities Act") or the Exchange Act. This section summarizes the SEC's actions against DeFi market participants for violations of section 5 of the Securities Act and sections 5 and 15(a) of the Exchange Act.

[C][1] Section 5 of the Securities Act

Prior to the offer and sale of a security, the security must be registered pursuant to section 5 of the Securities Act or satisfy an available exemption.[42] The SEC has brought actions alleging violations of section 5 to initiate enforcement proceedings against crypto

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40. *Id*. at 35.
41. *Id*. at 61.
42. 15 U.S.C. § 77e.

asset issuers for the offer and sale of various crypto asset services and products. Recent examples include the SEC's actions against Genesis Global Capital, LLC and Gemini Trust Company, LLC in January 2023 for allegedly violating sections 5(a) and 5(c) of the Securities Act, for the unregistered offer and sale of the Gemini Earn crypto asset lending program, and the SEC's action in February 2023 charging Terraform Labs PTE Ltd. for allegedly violating sections 5(a) and 5(c) of the Securities Act, for the offer and sale of unregistered crypto assets LUNA and UST.[43] While the majority of SEC actions were brought against centralized actors, the SEC has also brought actions against DeFi market participants and governance tokens of DeFi protocols.

On August 6, 2021, the SEC announced a settlement with Blockchain Credit Partners d/b/a DeFi Money Market, Gregory Keough, and Derek Acree,[44] the SEC's first enforcement action involving securities that utilized DeFi technology.[45] The SEC's order found that Blockchain Credit Partners violated sections 5(a) and 5(c) of the Securities Act by offering and selling securities without having a registration statement filed or in effect with the SEC. The offer and sale of these unregistered crypto assets (which the SEC found to be securities) were effected using smart contracts and sold using a DEX. Blockchain Credit Partners agreed to the Order without admitting or denying the findings.

From February 2020 to February 2021, Blockchain Credit Partners operated a DeFi Money Market (DMM). The platform allowed investors to provide crypto assets or USD Coin to the DMM through smart contracts in exchange for certain tokens. Using the crypto assets and USD provided by the investors, the DMM would then purchase "real world" assets (for example, car loans) and allow investors to earn interest in return.[46] At the center of these transactions were two tokens that the SEC found to be sold as securities: mToken (investment interest tokens) and DMG (governance tokens). The DMG token is a governance token (that is, a type of token that allows holders to participate in the governance of a protocol) that allowed investors to vote on changes to the business, control DMM profits,

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43. *See* SEC v. Genesis Glob. Capital, LLC, No. 23-cv-287 (S.D.N.Y. Jan. 12, 2023); *see also* SEC v. Terraform Labs PTE Ltd., No. 23-cv-1346 (S.D.N.Y. Feb. 16, 2023).
44. Order Instituting Cease-and-Desist Proceedings ¶¶ 55–56, *In re* Blockchain Credit Partners, Exchange Act Release No. 92588 (Aug. 6, 2021) [hereinafter *Blockchain Credit Partners* Order].
45. SEC Press Release 2021-145, Charges Decentralized Finance Lender and Top Executives for Raising $30 Million Through Fraudulent Offerings (Aug. 6, 2021), https://www.sec.gov/news/press-release/2021-145.
46. *Blockchain Credit Partners* Order, *supra* note 44, ¶ 2.

share excess profits, earn interest, and profit from DMG token resales in the secondary market.[47] The DMM also utilized a "burn" mechanism whereby DMG tokens would be destroyed using "surplus" from assets backing mTokens to decrease the DMG supply and increase its market price.[48] The mToken allowed investors to earn a 6.25% return on their crypto assets with the yield backed by real-world assets.[49] The SEC determined both DMG and mToken were sold as securities and thus required registration (or compliance with an applicable exemption). In making this determination, the SEC applied the *Howey* test to both the DMG and mToken, and also applied *Reves v. Ernst & Young* (which provides the test for whether certain notes are securities under the federal securities laws), in support of its analysis of mTokens.[50]

Under *Howey*, an investment contract is an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others.[51] Applying this test, the SEC found that DMG was offered and sold as an investment contract because it was offered in exchange for an investment of money in the form of USD Coin and crypto assets.[52] Proceeds from the sale of DMG were used to fund the DMM, creating profit for DMG holders and thereby tying the fortunes of the investors together.[53] The DMM created a secondary market for DMG tokens, which created a reasonable expectation that investors in DMG would earn profits from the essential efforts of the Blockchain Credit Partners and the DMM business.[54]

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47. *Id*. ¶¶ 2, 25, 35.
48. *Id*. ¶ 25.
49. *Id*. ¶ 2.
50. SEC v. W.J. Howey Co., 328 U.S. 293 (1946); Reves v. Ernst & Young, 494 U.S. 56, 64–66 (1990).
51. *Blockchain Credit Partners* Order, *supra* note 44, ¶ 45.
52. *Id*. ¶ 46.
53. *Id*. ¶ 47.
54. "Respondents, who ran DMM's day-to-day business, told DMG investors that they would profit from DMM's mTokens business. They touted their experience and claimed assets backing the business would generate income to pay 6.25% interest on redeemed mTokens plus excess interest for DMG holders. Although DMG holders had the right to vote on some proposals to change DMM's business—such as the digital assets to accept from investors—DMG holders had no role in running DMM's core business, which involved identifying, buying and servicing loans and then using the proceeds to pay mToken holders. In addition, Respondents said that DMG tokens would trade on secondary markets and worked to ensure trading liquidity, including by paying trading platforms to list the tokens, paying other companies to make markets in the tokens, and

The SEC made clear that it was unpersuaded by the argument that governance tokens are not securities because they are used for voting rather than for investment purposes. In particular, the SEC stated that whether a transaction involves a security does not turn on labeling (for example, "governance token"), "but instead requires an assessment of 'the economic realities underlying a transaction[,]'" and thus a totality of the circumstances type of analysis.[55] Therefore, whether DMG gave holders the right to vote on aspects of the DMM business would not have precluded DMG from being deemed a security. Using the same set of facts as applied to DMG, the SEC found that mTokens were also securities offered and sold as investment contracts as Blockchain Credit Partners created a reasonable expectation that investors would earn profits derived from their efforts managing the DMM business.[56]

In addition to finding mTokens were investment contracts, the SEC found that mTokens were offered and sold as notes, another type of security.[57] *Reves v. Ernst & Young* provides the test for whether certain notes are securities under the federal securities laws. Applying the *Reves* four-part analysis, the SEC found the mTokens were securities because (1) DMM sold mTokens to raise funds to purchase income-generating assets to pay interest to DMG token holders; (2) mTokens were offered and sold to the general public; (3) mTokens were promoted as an investment (for example, claiming to offer a consistent rate of return of 6.25%); and (4) no alternative regulatory scheme or other risk-reducing factors existed with respect to mTokens.[58]

Governance tokens are a type of crypto asset that is used to facilitate governance in DeFi.[59] The primary purpose of a governance token is to allow the token holders to vote on proposals that determine how a certain DeFi protocol operates. While voting may be a primary use case for governance tokens, the tokens may also be sold for value on a

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using their own DMG tokens to create a market on the Ethereum blockchain." *Id*. ¶ 48.

55. *Id*. ¶ 49 (citing United Housing Found., Inc. v. Forman, 421 U.S. 837, 849 (1975)).
56. *Blockchain Credit Partners* Order, *supra* note 44, ¶¶ 52–54.
57. Citing section 2(a)(1) of the Securities Act and section 3(a)(10) of the Exchange Act, the Order stated that a security includes any note, unless "it falls into certain judicially created categories of financial instruments that are not securities, or if the note in question bears a 'family resemblance' to notes in those categories based on [the *Reves*] four-part test."
58. *Blockchain Credit Partners* Order, *supra* note 44, ¶ 51.
59. Marcel Deer, *What Are Governance Tokens, and How Do They Work?*, COINTELEGRAPH (Oct. 24, 2022), https://cointelegraph.com/news/what-are-governance-tokens-and-how-do-they-work.

secondary market, used as collateral for a loan, used for staking,[60] or deposited in a liquidity pool and used to generate yield.

The SEC reflected its broad view that all crypto assets are securities, including governance tokens, with its complaint filed against Avraham Eisenberg in January 2023. In this complaint, the SEC alleged manipulation of the Mango Markets–issued "MNGO" governance token, which the SEC alleged was purchased and sold as an unregistered crypto asset security.[61] To summarize the SEC's *Howey* analysis, pursuant to Mango Markets' offer and sale of MNGO, which it sold in consideration for USD Coin, the MNGO token holders invested into a common enterprise because "the price of the MNGO token rose and fell equally for each MNGO token holder such that each investor profited or suffered losses pro rata based on the ownership share of MNGO tokens."[62] Further, Mango Markets advertised that proceeds of the MNGO token sales would be pooled and used to fund other MNGO projects.[63] As MNGO tokens were capable of participating in liquidity pools on the Mango Markets platform, the MNGO token holders had the capability of earning more MNGO tokens. The Mango Markets creators, whom the SEC did not identify, provided managerial efforts to the platform such as developing and deploying code, creating content for the Mango Markets' website, and submitting and voting on governance proposals.[64] As such, MNGO token holders expected profit derived from the efforts of the Mango Markets creators' efforts and therefore the SEC classified MNGO as an unregistered security.[65] As discussed further below, the CFTC brought a parallel action against Avraham Eisenberg for fraud and manipulation.

Of interest in the SEC's complaint is its dismissal and analysis of MNGO's governance rights. Mango Markets described the MNGO token as a governance token that grants holders voting rights on proposals that determine how the Mango Markets' platform will operate.[66] The Mango Market governance structure was designed so that depending on the nature of the governance proposal,

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60. Staking is the process by which users commit assets to a Proof of Stake network for the purposes of validating transactions on that network. In return for validating transactions, the staked user receives a reward, which is generally the native crypto asset to the network being staked.
61. Complaint ¶ 1, *SEC v. Eisenberg*, No. 1:23-cv-503 (S.D.N.Y. Jan. 20, 2023), https://www.sec.gov/files/litigation/complaints/2023/comp-pr2023-13.pdf.
62. *Id*. ¶ 43.
63. *Id*. ¶ 44.
64. *Id*. ¶ 54.
65. *Id*.
66. *Id*. ¶ 56.

the amount of MNGO required to participate would vary, thereby necessarily prohibiting all MNGO token holders from participating in governance proposals.[67] The SEC states as further evidence of the governance token's "illusory utility," Mango Markets only required a majority of MNGO tokens and a minimum of 2% outstanding supply to vote on a proposal in order for it to pass. Based on the distribution of MNGO tokens, most of the outstanding tokens resided with the Mango Markets creators, and the creators were the primary participants on any given proposal.[68] The SEC uses the "illusory" nature of governance rights associated with the MNGO token to bolster its argument that the MNGO token holders invested in the common enterprise with an expectation of profits based upon the efforts of others.[69]

Based on the SEC's actions against Blockchain Credit Partners and Avraham Eisenberg, it is clear that the SEC may view a DAO or DeFi-issued governance token as a security. Key to this determination is whether the token can be used to generate yield, which the SEC has viewed as creating an expectation of profit based on the efforts of the token issuer.

[C][2] Section 5 of the Exchange Act

Section 5 of the Exchange Act makes it unlawful to effect any transaction in a security through any organization, association, or group of persons that meets the definition of "exchange" under section 3(a)(1) of the Exchange Act unless such organization, association, or group of persons is registered with the SEC as a national securities exchange pursuant to section 6 of the Exchange Act or qualifies for an exemption.[70] As described above, Rule 3b-16 of the Exchange Act defines an "exchange" as an organization, association, or group of persons that (1) brings together the orders for securities of multiple buyers and sellers; and (2) uses established, non-discretionary methods

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67. *Id*. ¶ 57.
68. *Id*. ¶ 63. The SEC alleges that despite thousands of wallet addresses custodying MNGO, only five-to-ten addresses would vote on Mango Markets governance proposals.
69. *Id*.
70. 15 U.S.C. § 78e. 15 U.S.C. § 78c(a)(1) states: "The term 'exchange' means any organization, association, or group of persons, whether incorporated or unincorporated, which constitutes, maintains, or provides a market place or facilities for bringing together purchasers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the market place and the market facilities maintained by such exchange."

under which such orders interact with each other, and the buyers and sellers entering such orders agree to the terms of a trade.[71]

When the SEC has brought actions against DeFi market participants for violating section 5 of the Exchange Act, it took the view that such market participants facilitated transactions in crypto asset securities. On November 8, 2018, the SEC announced a settlement with Zachary Coburn, the founder of EtherDelta, a self-proclaimed decentralized crypto asset trading platform.[72] According to the SEC's order, EtherDelta should have been registered pursuant to section 5 of the Exchange Act and Coburn, by exercising complete and sole control of EtherDelta, caused EtherDelta to violate section 5 of the Exchange Act by failing to register as a national securities exchange or operating pursuant to an exemption.[73]

EtherDelta, which launched on July 12, 2016, allowed buyers and sellers to trade Ether and other ERC20 tokens in a secondary market.[74] In messages to potential EtherDelta users, Coburn described EtherDelta as a decentralized exchange whereby "unlike a traditional exchange, ' [t]here is no "exchange owner" holding your funds. Hence, [EtherDelta is] decentralized . . . . Centralized exchanges won't be able to show you verified business logic [in a publicly verified smart contract].'"[75] Coburn further represented that "[a]t a high level, EtherDelta functions just like a normal exchange" and "[l]ike any other exchange, EtherDelta has an order book of resting orders."[76] From inception through December 15, 2017, EtherDelta facilitated over 3.6 million buy and sell orders in ERC20 tokens.[77] Without identifying the specific crypto assets sold on EtherDelta, the Commission found that certain of these ERC20 tokens were crypto asset securities.[78]

According to the SEC's order, EtherDelta operated as an unregistered exchange and relied on the following facts as support: (i) EtherDelta maintained an orderbook for each Ether/ERC20 token

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71. 17 C.F.R. § 240.3b-16.
72. Order Instituting Cease-and-Desist Proceedings, *In re* Zachary Coburn, Exchange Act Release No. 84553 (Nov. 8, 2018). As of the date of the order, Zachary Coburn did not operate EtherDelta.
73. *Id*. § 27.
74. *Id*. ¶ 1. "The Ethereum Blockchain is an open, or permissionless, blockchain that is a record of events resulting from the execution of code (smart contracts) on the Ethereum Blockchain. ERC20 refers to a specific Ethereum token issuing protocol . . . used by the Ethereum Blockchain." *Id*. ¶ 1 n.2.
75. *Id*. ¶ 21.
76. *Id*.
77. *Id*. ¶ 4.
78. *Id*.

pair and displayed the top buy and sell orders;[79] (ii) EtherDelta's operations are defined and executed by EtherDelta's "smart contract" which facilitated the trading of the Ether/ERC20 token pairs;[80] and (iii) to execute a transaction on the EtherDelta platform, a user would utilize the EtherDelta interface, identify a displayed order on the orderbook, and submit the size of the order which pairs the user's order with the resting interest.[81] The EtherDelta smart contract code then confirmed the order messages were valid and that the counterparties had sufficient capital to complete the order, and if so, the smart contract executed the trade and the transaction was posted on-chain.[82] The Commission found that EtherDelta satisfied the Exchange Act 3b-16(a) criteria for meeting the definition of an exchange under section 3(a)(1) of the Exchange Act as "EtherDelta operated as a market place for bringing together the orders of multiple buyers and sellers in tokens that included securities as defined by [s]ection 3(a)(10) of the Exchange Act."[83]

In its recent proposed amendments to the definition of an "exchange,"[84] the SEC has made it clear that it believes certain crypto asset trading platforms currently perform the functions of an exchange as defined in Rule 3b-16 and therefore must register as a national securities exchange or comply with the conditions of Regulation ATS. To the extent DEXs do not already satisfy the definition of an exchange, the SEC made clear through its proposed amendment to Rule 3b-16 that it intends to capture DEX and DeFi activities through the amended term "Communications Protocol Systems."

[C][3] Section 15(a) of the Exchange Act

Section 15(a) of the Exchange Act makes it unlawful to effect any transactions in, or to induce or attempt to induce the purchase or sale of, any security unless otherwise registered as a broker or dealer.[85] Brokerage activity includes participating in important parts of a securities transaction, including solicitation, negotiation, or execution of a transaction, and receipt of transaction-based compensation. The term "broker" has been interpreted broadly to include technology providers

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79. *Id.* ¶ 7.
80. *Id.* ¶ 9.
81. *Id.* ¶ 17.
82. *Id.* ¶ 18.
83. *Id.* ¶ 26.
84. *See supra* section 8A:4.1[B][1], "Exchange" Rule Proposal.
85. Section 3(a)(4)(A) of the Exchange Act defines "broker" as "any person engaged in the business of effecting transactions in securities for the account of others." Section 3(a)(5)(A) of the Exchange Act defines "dealer" as "any person engaged in the business of buying and selling securities for his own account, through a broker or otherwise."

that transmit orders or perform other services in connection with securities transactions.[86] Such as with the requirement to register as a national securities exchange, registration as a broker or dealer is required when the crypto assets being transacted are securities.

In a recent civil complaint filed by the SEC,[87] it appeared to extend its theory of what constitutes brokerage services to DeFi products, alleging that by providing a DeFi wallet service to its customers, the entity is acting as an unregistered broker.[88] The SEC alleges that through the creation and use of non-custodial DeFi wallets, the company provides the technology services that perform brokerage functions that include facilitating the purchase and sale of crypto asset securities on behalf of its customers.[89] The SEC complaint describes the DeFi wallet as a wallet that routes customer orders through third-party decentralized trading platforms to access liquidity outside the company's platform.[90] In addition to routing customer orders, other identified indicia of brokerage services included advertising on its website the features of its DeFi wallet and that the advertisements and solicitation facilitated the trading of crypto assets. Lastly, the SEC complaint alleged that the company received transaction-based fees for each transaction executed through the DeFi wallet.[91]

While the complaint contained unique facts specific to the company, it is critical to consider whether a DeFi wallet or other DeFi-related service may trigger the definition of "broker" and therefore require registration.

In addition to the SEC's formulated arguments regarding unregistered brokerage activities for centralized entities offering a DeFi product, less explored is the SEC's approach to identifying unregistered dealer activities in DeFi.

On March 29, 2023, the SEC filed a civil complaint against Beaxy Digital Ltd. ("Beaxy Digital"), affiliated entities, and its control persons.[92] The SEC alleged that between May 2018 and June 2019, Beaxy Digital and its control persons conducted an unregistered offering

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86. *See In re* Neovest, Inc., Exchange Act Release No. 92285 (June 29, 2021); *see also* Exchange Act Release No. 21383 (Oct. 9, 1984) (noting that brokerage activities, such as recommendations, can occur through "computer brokerage system or accompanying data bases.").
87. Complaint, SEC v. Coinbase, Inc., No. 23-cv-4738 (S.D.N.Y. June 6, 2023), https://www.sec.gov/files/litigation/complaints/2023/comp-pr2023-102.pdf.
88. *Id*. ¶ 4.
89. *Id*. ¶ 75.
90. *Id*. ¶¶ 4, 64.
91. *Id*. ¶ 101.
92. Complaint, *SEC v. Beaxy Digital*, No. 23-cv-1962 (N.D. Ill. Mar. 29, 2023), https://www.sec.gov/files/litigation/complaints/2023/comp-pr2023-64.pdf.

of a crypto asset security, BXY, the proceeds from which were to be used to develop and operate a crypto asset trading platform.[93] In addition to alleged violations of operating as an unregistered exchange, broker, and clearing agency, the SEC also claimed certain defendants acted as unregistered dealers in violation of section 15(a) of the Exchange Act.

In support of its assertions, the SEC identified an executed market-making agreement between certain Beaxy Digital affiliated entities that was allegedly instituted to exert greater control over BXY liquidity.[94] The defendants also executed a separate market-making agreement with Dragonchain, Inc., to provide liquidity to its alleged unregistered crypto asset, DRGN.[95] From 2019 through the filing of the complaint, the Beaxy Digital affiliated defendants used trading algorithms to buy and sell BXY and DRGN at various prices in accordance with its market-making obligations both on the Beaxy Digital crypto asset trading platform as well as on other unaffiliated trading platforms.[96] Since the BXY and DRGN market-making activity were conducted in the defendants' own account, in exchange for flat fees, the SEC alleged that the defendants acted as unregistered dealers.

Based on the SEC's view of market-making activity in the Beaxy Digital enforcement action, it is possible for the SEC to take the same view with respect to market-making or liquidity-providing activity on a DEX and/or in DeFi applications.[97] The SEC appears to have the view in its "dealer" proposal that traditional maker-taker compensation models are indicative of dealer activities so similar compensation structures in DEXs and DeFi applications may attract similar scrutiny.

[D] International Influence

In addition to being the primary regulator of securities markets in the United States, the SEC staff also leads the International Organization of Securities Commissions' (IOSCO) DeFi Working

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93. *Id*. ¶¶ 1, 3.
94. *Id*. ¶¶ 128, 129.
95. *Id*. ¶ 136.
96. *Id*. ¶ 139.
97. Liquidity pools play an integral role in DeFi, both for the execution quality on AMM DEXs and for lending protocols as well. Liquidity pools are designed to incentivize liquidity providers to lock their crypto assets in a pool. Once a retail or institutional participant deposits their crypto assets into the pool, they receive in return a proportional amount of Liquidity Pool (LP) tokens. The LP tokens entitle the holder to receive a percentage of the fees a DEX or lending protocol earns from transactions executed on the respective platforms.

Group.[98] This group is tasked with identifying the regulatory implications arising from DeFi, "its interrelationship with centralized crypto-asset trading platforms and service providers and traditional markets and activities, and [understanding] how it may continue to develop in the future."[99]

IOSCO is a global organization of securities regulators that develops and promotes global standards for securities regulation.[100] IOSCO members regulate over 95% of the international securities markets.[101]

The IOSCO DeFi Working Group published its initial report, *IOSCO Decentralized Finance Report*, in March 2022.[102] The *IOSCO Decentralized Finance Report* focuses on providing a general understanding of DeFi and highlights areas of potential regulatory concern. On September 7, 2023, IOSCO published a follow-up Consultation Report, *Policy Recommendations for Decentralized Finance (DeFi)*, providing nine policy recommendations addressing market integrity and investor protection issues for DeFi.[103] In accordance with IOSCO's Crypto-Asset Roadmap published in June 2022, IOSCO seeks to finalize its DeFi policy recommendations prior to the end of 2023.

Of the nine policy recommendations, the IOSCO DeFi Working Group's second and third policy recommendations call for identifying responsible persons who could be subject to a jurisdiction's regulatory framework and advises that regulators should use both new and existing frameworks to oversee and regulate DeFi in a manner so that the regulatory outcomes are the same as or consistent

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98. The DeFi Working Group is led by the SEC with members from the Australian Securities and Investment Commission, the Securities Commission of the Bahamas, the European Securities and Markets Authority, the French Autorité des Marchés Financiers; the Hong Kong Securities and Futures Commission; the Central Bank of Ireland; the Italian Commissione Nazionale per le Società e la Borsa; the Financial Services Commission/Financial Supervisory Service of the Republic of Korea; the Mauritius Financial Services Commission; the Ontario Securities Commission; the Quebec Autorité des Marchés Financiers; the Monetary Authority of Singapore; the Comisión Nacional del Mercado de Valores of Spain; the Financial Conduct Authority of the United Kingdom; and the United States Commodity Futures Trading Commission.
99. IOSCO DeFi Report, *supra* note 8.
100. INT'L ORG. OF SEC. COMM'NS, ABOUT IOSCO, https://www.iosco.org/about/?subsection=about_iosco.
101. *Id*.
102. IOSCO DeFi Report, *supra* note 8.
103. IOSCO Consultation Report, Policy Recommendations for Decentralized Finance (Sept. 2023). The consultation period closes on October 19, 2023.

with traditional financial markets. These two recommendations are particularly noteworthy when considering the SEC's skepticism of decentralization and its emphasis on close analogues to traditional finance.

IOSCO's second DeFi policy recommendation seeks to identify natural persons and/or entities that "maintain control or sufficient influence over a particular DeFi arrangement or activity."[104] In determining control or influence, IOSCO advises that regulators review the "enterprise level" of any DeFi arrangement or activity to identify the responsible persons.[105] Critically, IOSCO's DeFi Working Group notes that DeFi governance mechanisms involve human intervention such as "effectuat[ing] governance decisions, or [ ] translat[ing] and implement[ing] proposals to make changes to a project's protocol, smart contracts or other code into usable code."[106] It is IOSCO's view that those persons with the technical skill and control to implement those changes could be considered responsible persons. Depending on the facts and circumstances of the DeFi arrangement, the following are non-exhaustive cited examples of potential responsible persons for a DeFi arrangement or activity: (i) founders and developers of a project; (ii) issuers of governance/voting tokens; (iii) voters of governance/voting tokens; (iv) DAOs or participants in DAOs; (v) those with administrative rights to smart contracts and/or a DeFi protocol; (vi) those who have or take on the responsibility of maintaining/updating the DeFi protocol or other aspects of the DeFi project; (vii) those who promote the use of the DeFi protocol by providing a user interface or otherwise facilitating interaction with the protocol; and (viii) those with custody (or effective control through an administrative key, voting structure, or otherwise) over user funds or assets.[107] The DeFi Working Group's goal of identifying responsible persons for a DeFi protocol is a key facet in its broader policy recommendations to ensure appropriate regulation and oversight of DeFi.

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104. *Id*. at 22. Indicating that control or influence can include, among other examples, "ownership interest; significant financial interest; significant voting rights; management of or the ability to impact the operations of the protocol at an enterprise or fundamental level; the ability to set permissions or access rights for users of the protocol, or to otherwise impact the rights of other users of the protocol; control over user assets; and the ability to enter into agreements for the protocol or enterprise."
105. *Id*. at 22. DeFi policy recommendation one provides that identifying the "enterprise level" of a DeFi arrangement or activity includes "ascertaining how the particular arrangement was developed and founded, promoted and funded, and how it is operated, used and maintained."
106. *Id*. at 23.
107. *Id*. at 23–24.

As its third DeFi policy recommendation, IOSCO advises that a regulator should use both new and existing frameworks to oversee and regulate DeFi so that the regulatory outcomes are the same as or consistent with traditional financial markets. The primary DeFi activities identified include issuing financial instruments, offering collective investment schemes, acting as market intermediaries or an exchange, and potentially acting as a clearance and settlement entity.[108] For financial instruments that may implicate section 5 of the Securities Act, IOSCO identifies, among a broader list of activities, DEXs or aggregators offering or selling its "own crypto-assets, including governance tokens, LP tokens or other crypto-assets" as well as AMMs or other types of liquidity pools which offer and sell interest "in the pool of crypto-assets that is the AMM."[109] Notable intermediary and exchange activities which may relate to Exchange Act sections 5, 6, and 15(a) include AMM and orderbook DEXs that perform "functions typically associated with exchanges" such as the trading and exchange of crypto assets.[110] For AMMs specifically, acting as liquidity providers or market-makers are explicitly analogized to the buying and selling activities traditionally performed by brokers and dealers.[111] Other DeFi activities cited as those traditionally performed by brokers and dealers include portfolio aggregators that allow users to view "current positions and allows them to execute transactions from the aggregator's interface" and aggregators that allow for users to identify the most favorable terms for a transaction by evaluating multiple protocols on a single interface.[112] IOSCO advises that to the extent a jurisdiction's current regulatory framework allows for regulatory arbitrage between traditional financial markets and DeFi, a regulator should be seeking to strengthen, augment, or clarify its frameworks to address the identified gaps.[113]

The additional seven policy recommendations of IOSCO's Consultation Report, *Policy Recommendations for DeFi*, include:

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108. *Id*. at 24–30.
109. *Id*. at 26. IOSCO reasons that "[a]s with the borrowing and lending product tokens that are issued in exchange for crypto-assets deposited in the pools, AMM tokens are also redeemable by the holder for the crypto-asset plus the pro rata income from the pool." Aggregators source liquidity from multiple liquidity pools and institutional market makers, determine the optimal strategy for executing the participant's order, and provide the participant with a single quote for the execution.
110. *Id*. at 27, 29.
111. *Id*. at 27.
112. *Id*.
113. *Id*. at 30.

(1) Recommendation 1: Analyze DeFi products, services, arrangements, and activities by applying existing or new regulatory frameworks that seek to conform to the global financial markets approach to "same activity, same risk, same regulatory outcome."[114]

(2) Recommendation 4: Identify and address conflicts of interest that arise as a result of the various roles and functions of DeFi products and services provided by participants and their affiliates.[115]

(3) Recommendation 5: Seek to require DeFi products, services, or the responsible persons to identify and address material risks related to the DeFi product or service itself.[116]

(4) Recommendation 6: Seek to require DeFi products, services, or the responsible persons to accurately disclose material information to its customers and investors related to the DeFi products and services offered.[117]

(5) Recommendation 7: Bestow regulators with the authority and capability to properly oversee, supervise, and enforce existing and new regulatory frameworks related to DeFi products, services arrangements, and activities.[118]

(6) Recommendation 8: IOSCO members should cooperate with members of other jurisdictions and enact cross-border information sharing agreements to aid in addressing DeFi risks within its own jurisdiction.[119]

(7) Recommendation 9: Regulators should seek to understand the interconnections between DeFi products and services, the broader crypto market generally, and traditional financial markets, and assess how the interconnections may impact investor protection and/or market integrity.[120]

§ 8A:4.2 *Private Litigation*

The Securities Act and the Exchange Act both provide a private right of action for investors. Traditionally, harmed litigants readily identify the opposing party who caused the harm, however, as a result

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114. *Id*. at 19–22.
115. *Id*. at 30–33.
116. *Id*. at 33–35.
117. *Id*. at 35–36.
118. *Id*. at 36–37.
119. *Id*. at 37–39.
120. *Id*. at 39–42.

of the anonymity provided by blockchain protocols, private litigants may not be able to identify the issuers of crypto assets distributed, purchased, and sold through DeFi trading platforms. Because of this anonymity, private litigants may attempt to hold the next closest party liable for the activity that occurred on the DeFi trading platform itself. This is what a certain class of plaintiffs ("Plaintiffs") attempted to do in *Risley v. Universal Navigation Inc.*, claiming Uniswap Labs, its CEO, the Uniswap Foundation (collectively, "Uniswap Defendants") and other venture capital defendants were liable for the financial injury caused by crypto issuers using the Uniswap Protocol trading platform ("Uniswap Protocol").[121] On August 29, 2023, District Judge Hon. Katherine Polk Failla dismissed the Plaintiffs' lawsuit entirely and noted that "given the current state of cryptocurrency regulation, the Court is concerned about holding parties liable under the federal securities laws for designing a platform that does not implicate the federal securities laws."[122]

The Uniswap Protocol is a DEX with no centralized ownership structure. The DEX is designed as an AMM utilizing liquidity pools to facilitate trading in crypto assets. The Uniswap Defendants developed the Uniswap interface, a website that allows for users to access the Uniswap Protocol by, among other methods, connecting their crypto wallets to the interface ("Uniswap Interface").[123] The Uniswap Defendants contributed to drafting the code for the Uniswap Protocol, but the Uniswap Protocol operates autonomously. Any control exerted by the Uniswap Defendants regarding user access or crypto asset delisting was conducted through the Uniswap Interface and did not change the underlying code to the Uniswap Protocol that executes the transactions.[124]

In the opinion and order dismissing the lawsuit, Judge Failla made important distinctions between the underlying Uniswap Protocol and the Uniswap Interface. In the court's analysis of the Plaintiffs' two federal securities laws claims, section 29(b) of the Exchange Act and section 12(a)(1) of the Securities Act, the court declined to "stretch the federal securities laws to cover the conduct alleged, and conclu[ded] that Plaintiffs' concerns [were] better addressed to Congress."[125]

Regarding the Exchange Act section 29(b) recission claim, the court analyzed and made distinct the Uniswap Protocol smart contracts that allow for executions, and determine pricing, charge, and

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121. Opinion & Order, Risley v. Universal Navigation Inc., No. 22-cv-02780 (S.D.N.Y. Aug. 29, 2023), ECF No. 90.
122. *Id*. at 22–23 n.8.
123. *Id*. at 14.
124. *Id*. at 22.
125. *Id*. at 28.

distribute fees to liquidity providers on the one hand, versus the individual crypto asset contracts unique to each liquidity pool and constructed by the crypto asset issuers.[126] The court determined the Uniswap Protocol smart contracts were collateral to the malfeasant actions of the crypto asset issuers and therefore it was the court's opinion that it "defie[d] logic that a drafter of computer code underlying a particular software platform could be liable under Section 29(b) for a third-party's misuse of that platform."[127]

When analyzing the Plaintiffs' Securities Act section 12(a)(1) statutory sellers claim, the court again focused on the non-custodial operation of the Uniswap Protocol rather than the participation of the Uniswap Defendants in drafting smart contract code collateral to the sale transactions.[128] The court's analysis of the liquidity pools and the fee dispersal further supports finding a delineation between the Uniswap Protocol and the Uniswap Defendants' activities related to the Uniswap Interface. Whenever a fee is charged for the use of the Uniswap Protocol, the transaction fee is distributed to the liquidity providers in a Uniswap liquidity pool rather than being distributed to the Uniswap Defendants.[129] Because the fee bypasses the Uniswap Defendants, it evidenced the autonomous operation of the Uniswap Protocol and delineation between the Uniswap Protocol and Uniswap Interface. Therefore, while the Uniswap Defendants drafted smart contract code underlying the Uniswap Protocol, it does not transfer title of the crypto assets traded on the Uniswap Protocol to the Uniswap Defendants sufficient to find section 12(a)(1) liability.[130]

§ 8A:4.3 CFTC

[A] Scope of Jurisdiction Under Legislation

The Commodity Exchange Act (CEA) gives the CFTC exclusive jurisdiction over accounts, agreements, and transactions involving swaps or contracts of sale of a commodity for future delivery.[131] The definition of "commodities" is not limited to physical commodities and includes "all goods and articles, . . . and all services, rights, and interests . . . in which contracts for future delivery are presently or in the future dealt in."[132] To the extent that crypto assets are commodities or other derivatives, they may be subject to CFTC jurisdiction.

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126. *Id.* at 31–33.
127. *Id.* at 31, 35.
128. *Id.* at 40–41.
129. *Id.* at 40–44.
130. *Id.*
131. 7 U.S.C. § 2.
132. *Id.* § 1(a)(9).

The CFTC and federal courts have stated that crypto assets or virtual currencies are commodities under the CEA.[133] This gives the CFTC enforcement authority over fraud in virtual currency cash markets, although its regulatory oversight over commodity cash (spot) markets is otherwise limited.[134] Additionally, to the extent that DeFi protocols and platforms are used to trade or exchange virtual currencies or other crypto asset commodities or derivatives, the CFTC may consider these participants within its jurisdiction.

The CFTC has interpreted the definition of "virtual currency" broadly, stating that it "[e]ncompasses any digital representation of value that functions as a medium of exchange, and any other digital unit of account that is used as a form of a currency (that is, transferred from one party to another as a medium of exchange); may be manifested through units, tokens, or coins, among other things; and may be distributed by way of digital 'smart contracts,' among other structures."[135] The CFTC has, however, notably declined to adopt a bright-line definition of "virtual currency," citing the evolving nature of crypto assets and the underlying public distributed ledger technology.[136]

[B] Intent to Regulate

CFTC Commissioners and senior staff members have made multiple statements indicating that the CFTC views DeFi as potentially subject to the CEA and as a result intends to exercise greater regulatory scrutiny over such protocols.

In November 2018, LabCFTC, the CFTC's financial technology initiative, released its Primer on Smart Contracts. The primer noted that smart contracts could be subject to a variety of legal frameworks, including the CEA and CFTC regulations.[137]

In June 2021, then-CFTC Commissioner Dan Berkovitz gave a speech at the Asset Management Derivatives Forum in which he questioned the utility of cutting out the intermediaries of the

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133. CFTC Report, The CFTC's Role in Monitoring Virtual Currencies (2020), https://www.cftc.gov/media/4636/VirtualCurrencyMonitoringReportFY2020/download; CFTC, CFTC Digital Assets Primer (Dec. 2020), https://www.cftc.gov/media/5476/DigitalAssetsPrimer/download; Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, *In re* Coinflip, Inc., CFTC Docket No. 15-29 (Sept. 17, 2015).

134. *Id*.

135. Retail Commodity Transactions Involving Certain Digital Assets, 85 Fed. Reg. 37,734, 37,735 (June 24, 2020).

136. *Id*.

137. LabCFTC, A Primer on Smart Contracts 25 (Nov. 27, 2018), https://www.cftc.gov/sites/default/files/2018-11/LabCFTC_PrimerSmartContracts112718_0.pdf.

traditional financial system. Berkovitz stated that removing legally accountable intermediaries from the financial system could decrease the legal protections afforded to investors in the U.S. financial markets.[138] Berkovitz also noted that he believed that unlicensed DeFi markets for derivatives are illegal under the CEA, since the CEA requires futures contracts to be traded on licensed designated contract markets.[139]

In March 2023, the CFTC's Technology Advisory Committee (TAC) held its inaugural meeting on cybersecurity, DeFi, and artificial intelligence. The first meeting included a panel dedicated to complex issues in DeFi.[140] Multiple commissioners gave opening statements at the meeting. In her remarks, Commissioner Christy Goldsmith Romero referred to the issue of accountability as a "foundational issue" for DeFi.[141] On accountability, Commissioner Goldsmith Romero stated that, "[s]ome say that accountability rests in code, protocols and smart contracts, or in existing governance structures. However, organizations may also have varying degrees and areas of centralization that can lead to accountability." In her statement, Commissioner Kristin N. Johnson emphasized risks posed by distributed ledger technology, such as the need to focus on climate risks in financial markets and the digital identity use case.[142] Commissioner Johnson stated that while there is great promise in the development of DeFi technology, there is also "notable concerns, including the need to ensure effective privacy protections are embedded in the development of such technologies."

The TAC met again in July 2023.[143] At that meeting, the agenda included a discussion of DeFi models such as DAOs as well as a

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138. Dan M. Berkovitz, SEC Comm'r, Keynote Address Before FIA and SIFMA-AMG, Asset Management Derivatives Forum 2021: Climate Change and Decentralized Finance: New Challenges for the CFTC (June 8, 2021), https://www.cftc.gov/PressRoom/SpeechesTestimony/opaberkovitz7.

139. *Id*.

140. Event: Commissioner Goldsmith Romero Announces Technology Advisory Committee Meeting Agenda That Includes Cybersecurity, Decentralized Finance, and Artificial Intelligence (Mar. 22, 2023), https://www.cftc.gov/PressRoom/Events/opaeventtac032223.

141. Christy Goldsmith Romero, SEC Comm'r, Opening Statement at the Technology Advisory Committee on DeFi, Responsible Artificial Intelligence, Cloud Technology & Cyber Resilience (Mar. 22, 2023), https://www.cftc.gov/PressRoom/SpeechesTestimony/romerostatement032223.

142. Kristin N. Johnson, SEC Comm'r, Opening Statement Before the Technology Advisory Committee (Mar. 22, 2023), https://www.cftc.gov/PressRoom/SpeechesTestimony/johnsonstatement032223.

143. Event: Commissioner Goldsmith Romero Announces July 18 Technology Advisory Committee Meeting (July 18, 2023), https://www.cftc.gov/PressRoom/Events/opaeventtac071823.

discussion of the CFTC's Ooki DAO case.[144] In her opening statement, Commissioner Goldsmith Romero again emphasized the "central issue" of accountability and the "sliding scale that is often DeFi" with respect to what decentralization means.[145]

In May 2023, CFTC Chairman Rostin Behnam appeared on a Bloomberg podcast where he discussed his thoughts on DeFi and CFTC regulation. When asked by the podcast host about what DeFi exchanges have to do to be in the CFTC's "good graces," Behnam seemingly dismissed the "code is law" argument that is espoused by some members of the DeFi community and, like his fellow commissioners, focused on the issue of accountability.[146] Chairman Behnam stated that the questions that should be asked are not about whether or not it is possible to regulate code but instead should focus on "what are U.S. customers being offered and exposed to and who is either the individual or group of individuals who set up that entity, that code, to offer those products."[147] He also noted his belief that, "it really is incumbent on individuals [involved in DeFi protocols] to understand and appreciate that if you're going to offer derivatives to US customers there is a very well-developed and mature legal base and requirements for complying with the law."[148] Chairman Behnam's statements here reflect the CFTC's increasing focus on DeFi and accountability.

[C] Enforcement Actions

The CFTC's enforcement actions against Ooki DAO and Avraham Eisenberg marked its first enforcement actions involving DeFi protocols. In September 2023, the CFTC also brought enforcement actions against three DeFi protocols for, among other things, failure to register.

[C][1] Ooki DAO

On September 22, 2022, the CFTC announced a settlement against bZeroX, LLC ("bzeroX") and two of its founders for developing a crypto asset protocol that offered leveraged retail commodity

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144. *Id*.
145. Christy Goldsmith Romero, SEC Comm'r, Opening Statement at the Technology Advisory Committee on Responsible AI in Financial Services, DAOs and Other DeFi & Cyber Resilience (July 18, 2023).
146. *CFTC Chair Rostin Behnam on the Fight to Regulate Crypto*, BLOOMBERG ODD LOTS (May 18, 2023), https://www.bloomberg.com/news/articles/2023-05-18/cftc-chair-rostin-behnam-discusses-crypto-regulation-on-odd-lots#xj4y7vzkg.
147. *Id*.
148. *Id*.

transactions without registering as a designated contract market (DCM) or futures commission merchant (FCM).[149] The protocol used smart contracts to allow participants to establish leveraged positions across crypto asset pairs and included automated collateral requirements and mechanisms to liquidate positions in the event losses exceeded the value of the posted collateral.[150]

In August 2021, bZeroX transferred control of the protocol from itself to a DAO that would continue to offer leveraged commodity transactions to retail customers.[151] Prior to the transfer of control of the DAO, one of bZeroX's founders announced the plan and described it as a way to "future proof" the protocol.[152] The DAO later changed its name, through a vote of its token holders, to the Ooki DAO.[153]

In its September 2022 order, the CFTC found that bZeroX and its two individual founders offered illegal leveraged retail commodity transactions without registering as a DCM in violation of section 4(a) of the CEA and failed to register bZeroX as an FCM in violation of CEA section 4d(a)(1).[154] The CFTC also found that Ooki DAO continued to violate the CEA after it assumed control of the protocol and that the two individual founders were liable for the DAO's violations under principles of state partnership law.[155]

At the same time that the CFTC announced the settlement, it filed a parallel suit against Ooki DAO in the Northern District of California.[156] Given the unincorporated nature of the DAO, the CFTC moved, and the court accepted, to authorize alternative service against the DAO via postings in "an online forum for holders of Ooki Tokens to discuss and vote on Ooki DAO governance issues."[157] In December 2022, the court held that the DAO both could be sued

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149. Order, *In re* bZeroX, LLC, CFTC Docket No. 22-31 (Sept. 22, 2022) [hereinafter *bZeroX* Order]; *see also* CFTC Release No. 8590-22, CFTC Imposes $250,000 Penalty Against bZeroX, LLC and Its Founders and Charges Successor Ooki DAO for Offering Illegal, Off-Exchange Digital-Asset Trading, Registration Violations, and Failing to Comply with Bank Secrecy Act (Sept. 22, 2022), https://www.cftc.gov/PressRoom/PressReleases/8590-22.
150. *bZeroX* Order, *supra* note 149, at 3.
151. *Id*. at 5.
152. *Id*. at 3.
153. *Id*. at 6–7.
154. *Id*. at 13.
155. *Id*. at 10–11.
156. *See* Complaint, CFTC v. Ooki DAO, No. 3:22-cv-5416 (N.D. Cal. 2022).
157. Declaration in Support of Plaintiff's Motion for Alternative Service Against Defendant Ooki DAO Pursuant to 28 U.S.C. § 1746, CFTC v. Ooki DAO, No. 3:22-cv-5416 (N.D. Cal. Sept. 27, 2022).

and had been properly served by the CFTC via the online forum postings.[158]

On June 8, 2023, the Northern District of California entered a default judgment order against Ooki DAO in the CFTC's case.[159] The default judgment was entered after the DAO failed to send a representative to court or acknowledge the CFTC's case.[160] The order required Ooki DAO to pay a civil monetary penalty and subjects the DAO to permanent trading and registration bans.[161] The judgment also orders Ooki DAO and any third party providing web-hosting or domain-registration services to shut down the DAO's website and remove its content from the Internet.[162]

Notably, the default judgment against Ooki DAO held that the DAO is a "person" under the CEA and, therefore, can be held liable for violations of the CEA and CFTC regulations.[163] This judgment sets a precedent for future actions by the CFTC against other DAOs that could constitute unincorporated associations under state law.

Following the filing of the enforcement action against Ooki DAO, Commissioner Summer Mersinger released a dissenting statement that discussed her disagreement with the legal theory underpinning the case. Commissioner Mersinger stated that she would have voted to approve the settlement if it had only included the settlement order with bZeroX LLC and its two founders.[164] Commissioner Mersinger also agreed with the filing of an injunctive enforcement action charging Ooki DAO with the same violations as an

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158. Order Concluding that Service Has Been Achieved, CFTC v. Ooki DAO, No. 3:22-cv-05416-WHO (N.D. Cal. 2022).

159. Statement of CFTC Division of Enforcement Director Ian McGinley on the Ooki DAO Litigation Victory, CFTC Release No. 8715-23 (June 9, 2023), https://www.cftc.gov/PressRoom/PressReleases/8715-23 [hereinafter *Ooki DAO* Statement]. *See also* Judgment, CFTC v. Ooki DAO, No. 3:22-cv-05416-WHO (N.D. Cal. 2023) [hereinafter *Ooki DAO* Judgment].

160. *Ooki DAO* Judgment at 1. *See also* Elizabeth Napolitano, *CFTC Wins Lawsuit Against Ooki DAO*, CoinDesk (June 12, 2023), https://www.coindesk.com/policy/2023/06/09/cftc-wins-lawsuit-against-ooki-dao/.

161. *Ooki DAO* Statement, *supra* note 159; *Ooki DAO* Judgment, *supra* note 159, at 1–3.

162. *Ooki DAO* Statement, *supra* note 159; *Ooki DAO* Judgment, *supra* note 159, at 3.

163. Order Granting Motion for Default Judgment, CFTC v. Ooki DAO, No. 3:22-cv-05416-WHO (N.D. Cal. 2023), at 7–8. *See also Ooki DAO* Statement, *supra* note 159.

164. Summer K. Mersinger, SEC Comm'r, Dissenting Statement Regarding Enforcement Actions Against: 1) bZeroX, LLC, Tom Bean, and Kyle Kistner; and 2) Ooki DAO (Sept. 22, 2022), https://www.cftc.gov/PressRoom/SpeechesTestimony/mersingerstatement092222.

unincorporated organization.[165] However, Commissioner Mersinger stated that the CFTC's approach of determining liability for DAO token holders based on their participation in governance voting did not rely on legal authority in the CEA or relevant case law, and also undermined the public interest by disincentivizing good governance in crypto.[166] The statement highlights the difficulty of determining accountability for enforcement purposes in the DeFi space, a topic that continues to be of focus for the CFTC.

[C][2] Avraham Eisenberg (Mango Markets)

On January 9, 2023, the CFTC filed a civil enforcement action against Avraham Eisenberg.[167] This action was filed before the action filed by the SEC against Eisenberg (described above). The CFTC alleged that Eisenberg engaged in "a fraudulent and manipulative scheme to unlawfully obtain over $110 million in crypto assets from a purported decentralized crypto asset exchange."[168] The action represented the CFTC's first enforcement action for fraud and manipulation involving trading on a DeFi platform and is also the agency's first enforcement action involving oracle manipulation.[169]

Mango Markets is a decentralized exchange that allows investors to lend, borrow, swap, and trade virtual currency.[170] The exchange is governed by a DAO that is made up of holders of its native token, MNGO.[171] One of Mango Markets' offerings was swaps based on the relative value between MNGO and the stablecoin USDC.[172] Mango Markets' swap contracts, including the MNGO-USDC swaps, operated through smart contracts and did not require users to provide identifying information.[173] Mango Markets used an oracle that pulled market price data from three different exchanges in order to

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165. *Id*.
166. *Id*.
167. CFTC Charges Avraham Eisenberg with Manipulative and Deceptive Scheme to Misappropriate Over $110 Million from Mango Markets, a Crypto Asset Exchange, CFTC Release No. 8647-23 (Jan. 9, 2023), https://www.cftc.gov/PressRoom/PressReleases/8647-23 [hereinafter *Eisenberg* Press Release].
168. *Id*.
169. *Id*.
170. James Field, CFTC Takes Mango Markets Manipulator to Court, COINGEEK (Jan. 11, 2023), https://coingeek.com/cftc-takes-mango-markets-manipulator-to-court/ [hereinafter Field].
171. *Id*.
172. Complaint at 2, CFTC v. Eisenberg, No. 23-cv-0173 (S.D.N.Y. 2023) [hereinafter CFTC *Eisenberg* Complaint], at 2.
173. *Id*. at 26.

determine the market prices of assets on the exchange, including MNGO and USDC.[174]

The CFTC's complaint alleged that, in furtherance of a manipulative and deceptive scheme, Eisenberg purchased over 400 million MNGO-USDC swaps on Mango Markets with an approximate position size of $19 million.[175] Eisenberg allegedly did this by establishing two accounts at Mango Markets and establishing a $19 million long position consisting of over 400 million MNGO-USDC swaps in the first account while also establishing a short position of the same size in the second account.[176] Since Mango Markets did not require users to provide identifying information, Eisenberg was able to establish the accounts anonymously and conceal the fact that he was on both sides of the transaction.[177] Eisenberg then allegedly bought large quantities of MNGO on the exchanges from which Mango Markets' oracle pulled market prices over a span of less than thirty minutes.[178] Eisenberg used false identification to establish his account at one of the three exchanges and used an anonymous email address and virtual private network at another.[179]

Since MNGO was a relatively illiquid asset, the large purchases caused its price to spike to inflated levels on the exchanges, which caused the price of MNGO on Mango Markets to increase from about $0.04 to $0.54 during the thirty-minute span.[180] Mango's increase in value caused a similar increase in value of Eisenberg's MNGO-USDC swaps, and Eisenberg then used the inflated value of his swaps as collateral to borrow approximately $114 million in crypto assets—virtually all of the exchange's available liquidity—from Mango Markets.[181] Eisenberg then transferred the borrowed crypto assets out of his Mango Markets account.[182] After Eisenberg ceased his alleged manipulation of MNGO and the MNGO-USDC swaps, the prices of both declined below their pre-manipulation value and Eisenberg's borrowings became undercollaterized, draining the platform.[183]

Eisenberg admitted to his actions via Twitter, stating that he believed his actions "were legal open market actions, using the protocol as designed, even if the development team did not fully

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174. *Id*. at 4.
175. *Id*. at 5.
176. *Id*. at 31.
177. *Id*.
178. *Id*. at 5.
179. *Id*. at 33–34.
180. *Id*. at 5.
181. *Id*.
182. *Id*. at 6.
183. *Id*.

anticipate all the consequences of setting parameters the way they are."[184] Eisenberg also proposed a deal with Mango Markets in which he would return $67 million of the misappropriated funds, keeping the addition $47 million as a "bug bounty," in exchange for Mango Markets agreeing not to pursue any criminal action against him.[185] The Mango Markets DAO voted to accept the proposal, and Eisenberg returned approximately $67 million to the exchange in the form of USDC and Solana.[186] Mango Markets subsequently used the returned funds as well as $25 million from its treasury to compensate users who were negatively impacted by Eisenberg's actions.[187]

While the case against Eisenberg was the CFTC's first civil enforcement action for fraud and manipulation on a DeFi platform, it indicates the potential for increasing enforcement by the CFTC as it continues to focus on DeFi. At the time that the charges were filed, the CFTC's Acting Director of Enforcement, Gretchen Lowe, stated that, "[t]he CFTC will use all available enforcement tools to aggressively pursue fraud and manipulation regardless of the technology that is used. The CEA prohibits deception and swap manipulation, whether on a registered swap execution facility or on a decentralized blockchain-based trading platform."[188]

Following the filing of the action against Eisenberg, CFTC commissioners made various statements indicating that the Commission would continue to push for enforcement in the DeFi space. Commissioner Kristin N. Johnson's statement noted that she had advocated in her time at the CFTC for the Commission to use its existing authority to vigorously pursue misconduct in the crypto asset markets, "even in novel venues like a decentralized digital assets exchange."[189] Commissioner Johnson emphasized that market participants should be aware that conduct like Eisenberg's will be subject to CFTC enforcement.[190] Commissioner Caroline Pham's statement noted when discussing "perpetual futures" that "a swap is

184. *Id*. at 46; *see also* Avraham Eisenberg (@avi_eisen), Twitter (Oct. 15, 2022, 12:48 PM), https://twitter.com/avi_eisen/status/1581326199682265088.
185. CFTC *Eisenberg* Complaint, *supra* note 172, at 43–44; *see also* Field, *supra* note 170.
186. CFTC *Eisenberg* Complaint, *supra* note 172, at 44.
187. *Id*.
188. *Eisenberg* Press Release, *supra* note 167.
189. Commissioner Kristin N. Johnson, SEC Comm'r, Statement Regarding CFTC Action Against Market Manipulation Scheme in the Crypto Assets Markets (Jan. 9, 2023), https://www.cftc.gov/PressRoom/SpeechesTestimony/johnsonstatement010923.
190. *Id*.

a swap, even by any other name" and that such derivatives are within the CFTC's jurisdiction.[191]

[C][3] DeFi Protocols Enforcement Actions

On September 7, 2023, the CFTC issued orders simultaneously filing and settling charges against three DeFi protocols: Opyn, Inc. ("Opyn"), ZeroEx, Inc. ("ZeroEx"), and Deridex, Inc. ("Deridex").[192]

The CFTC charged Opyn with failing to register as a swap execution facility (SEF) or DCM, failing to register as an FCM, and failing to adopt a customer identification program as part of a Bank Secrecy Act Compliance Program, a requirement for FCMs.[193] Opyn was also charged with illegally offering leveraged and margined retail commodity transactions in crypto assets.[194] Opyn offered the trading of crypto asset derivatives based in part on the price of Ether via a blockchain-based crypto asset trading platform known as the Opyn Protocol.[195] Users accessing the Opyn Protocol could enter into long or short positions in "power perpetuals," derivatives products whose values were based on an index created by Opyn.[196] Opyn's index for power perpetuals tracked the price of Ether squared relative to the stablecoin USDC. The CFTC noted in its order that Ether is a commodity in interstate commerce.[197] Opyn was ordered to cease and desist from violating the CEA and to pay a civil monetary penalty of $250,000.[198]

Deridex was charged with failing to register as an SEF or DCM, failing to register as an FCM, failing to adopt a customer identification program as part of a Bank Secrecy Act Compliance Program per FCM requirements, and illegally offering leveraged and margined

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191. Commissioner Caroline D. Pham, SEC Comm'r, Statement Regarding Complaint Charging Swaps Manipulation and Fraud on a Decentralized Crypto Asset Exchange (Jan. 10, 2023), https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement011023.
192. CFTC Press Release No. 8774-23, CFTC Issues Orders Against Operators of Three DeFi Protocols for Offering Illegal Crypto Asset Derivatives Trading (Sept. 7, 2023), https://www.cftc.gov/PressRoom/PressReleases/8774-23?utm_source=govdelivery [hereinafter Three Protocols Press Release].
193. *Id. See also* Order, *In re* Opyn, Inc., CFTC Docket No. 23-40 (Sept. 7, 2023).
194. Order, *In re* Opyn, Inc., CFTC Docket No. 23-40.
195. *Id*.
196. *Id*.
197. *Id*.
198. *Id*.

retail commodity transactions in crypto assets.[199] Deridex developed, deployed, and maintained a blockchain-based crypto asset trading platform known as the Deridex Protocol.[200] Deridex marketed the protocol as a decentralized on-chain derivatives platform, and offered leveraged trading of crypto asset derivatives to protocol users.[201] Users accessing the protocol could contribute margin and establish and liquidate positions in perpetual futures.[202] Deridex was ordered to cease and desist from violating the CEA and to pay a civil monetary penalty of $100,000.[203]

ZeroEx was charged with illegally offering leveraged and margined retail commodity transactions in crypto assets.[204] ZeroEx developed and deployed a blockchain-based crypto asset protocol that allowed users to trade crypto assets on a peer-to-peer basis directly from their Ethereum wallets.[205] ZeroEx also created and operated a front-end user interface, called "Matcha," which utilized its protocol to enable users to trade crypto assets and was marketed to retail investors as a DEX as well as a DEX aggregator that compiled price data from market makers and other DEXs.[206] Matcha users could submit bids and offers and execute trades on a peer-to-peer basis in various crypto assets from multiple sources of liquidity through Matcha's website.[207] The CFTC noted that the crypto assets available to users included leveraged tokens which provided traders with leveraged exposure to Ether and Bitcoin, both of which are commodities in interstate commerce.[208] ZeroEx was ordered to cease and desist from violating the CEA and to pay a civil monetary penalty of $200,000.[209]

Commissioner Summer K. Mersinger released a dissenting statement regarding the enforcement actions against Opyn, Deridex, and ZeroEx. In her dissent, Commissioner Mersinger distinguished between the previous enforcement action against Ooki DAO—in which a previously centralized exchange had become decentralized to

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199. Three Protocols Press Release, *supra* note 192. *See also* Order, *In re* Deridex, Inc., CFTC Docket No. 23-42 (Sept. 7, 2023).
200. Order, *In re* Deridex, Inc., CFTC Docket No. 23-42 (Sept. 7, 2023).
201. *Id*.
202. *Id*. Perpetual futures are a common DeFi derivative product and are leveraged derivative products whose value are based on the relative price difference between two crypto assets.
203. *Id*.
204. Three Protocols Press Release, *supra* note 192. *See also* Order, *In re* ZeroEx, Inc., CFTC Docket No. 23-41 (Sept. 7, 2023).
205. *Id*.
206. *Id*.
207. *Id*.
208. *Id*.
209. *Id*.

attempt to avoid CFTC regulation—and the three new enforcement actions, which involved novel technology that was "decentralized in concept and operation—an area that has not previously been the subject of a CFTC enforcement action."[210] Commissioner Mersinger also noted that while the CFTC does have a mandate to protect market participants from fraud and abuse, its orders in the three cases did not indicate that any customer funds had been misappropriated or that any market participants had been victimized by the three DeFi protocols.[211] Finally, Commissioner Mersinger expressed concern over a potential "enforcement first" position towards DeFi market participants by the CFTC given the novel nature of DeFie technology and open questions it raises, and called on the agency to engage in rulemaking regarding DeFi or to otherwise address policy questions presented by DeFi by issuing requests-for-comment, advisories, or interpretive guidance.[212]

§ 8A:5 Conclusion

DeFi is growing rapidly, and as such, regulatory agencies like the SEC and CFTC are beginning to assert their jurisdiction and attempt to regulate DeFi in accordance with their existing authorities. While certain proponents of DeFi advocate for new DeFi-specific regulations, it is unclear whether regulators and legislatures will adopt this approach, and if this approach is adopted, the timing of any new rules and legislation is unknown. What is clear, however, is that today DeFi market participants must continue navigating the current regulatory landscape that seeks to apply traditional financial intermediary obligations upon their business models. DeFi market participants should closely monitor guidance and proposed rulemaking from regulators to identify potential impacts on their businesses and participate in the rulemaking comment process and legislative processes to ensure that regulatory agencies and law makers are well informed about the potential impact their rules or legislation will have on the DeFi market.

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210. CFTC Press Release No. 8774-23, Dissenting Statement of Commissioner Summer K. Mersinger Regarding Enforcement Actions Against: 1) Opyn, Inc.; 2) Deridex, Inc.; and 3) ZeroEx, Inc. (Sept. 7, 2023), https://www.cftc.gov/PressRoom/SpeechesTestimony/mersingerstatement090723.

211. *Id*.

212. *Id*.