DeFi Education Fund

October 16, 2025

By Email: crypto@SEC.GOV

Commissioner Hester M. Peirce

Chair of SEC Crypto Task Force
U.S. Securities and Exchange Commission
100 F Street NE
Washington, D.C. 20549-1090

Re: In re: BarnBridge DAO/In re: Coburn

Dear Commissioner Peirce and Members of the SEC Crypto Task Force:

On behalf of the DeFi Education Fund ("DEF"), we respectfully provide this submission regarding settlements reached in enforcement actions brought against certain actors in *In re: BarnBridge DAO*[1] ("BarnBridge DAO") and *In re: Coburn*[2] ("EtherDelta"). We respectfully request that the U.S. Securities and Exchange Commission (the "Commission") disclaim the findings in BarnBridge DAO and EtherDelta, or, if the Commission will continue to rely on those decisions, issue guidance or other relief to clarify their application to Decentralized Finance ("DeFi"). Specifically, we hope the Commission will consider disclaiming or expressly clarifying 1) its conclusions in BarnBridge DAO as to what "securities" were at issue and that smart contract pools cannot be investment companies, and 2) EtherDelta is limited to its facts and will not be applied to DeFi.

I. Background on DeFi

DeFi is a financial system built on public blockchains that allows people to engage in self-directed, peer-to-peer financial transactions without relying on intermediaries and while maintaining custody and control over their own funds.[3] DeFi expands access to the financial system and removes barriers to entry often found in traditional finance. The ability for people to self-custody their assets is central to DeFi; no financial institution can restrict a person's ability to access their assets, enforcing property rights and consumer protections.

DeFi includes software protocols and applications that:

- Are built on public blockchains and open-source or source-available code;
- Have no centralized intermediaries;
- Work with people custodying their own digital assets and data; and
- Are governed by decentralized, dispersed entities that do not have unilateral control over the software or people's assets or data.

[1] *In the Matter of BarnBridge DAO*, Securities Act. Rel. No. 11262 (Dec. 22, 2023).
[2] *In the Matter of Zachary Coburn*, Securities Act Rel. No. 84553 at 13 (Nov. 8, 2018).
[3] *See* DeFi Education Fund, DeFi 101, available at https://www.defieducationfund.org/_files/ugd/84ba66_3646bdd7cfc344a1831324c73a7d407b.pdf.

Automated Market Makers

An AMM or automated market maker is a term used to describe blockchain-based applications that allow third parties to trade assets on a peer-to-peer (P2P) basis while relying on software, rather than a traditional legal intermediary.[4]

While centralized exchanges typically maintain order books that track and match buyers and sellers to establish asset pricing, DeFi AMMs allow people to trade using software known as a "pool" – a smart contract where Liquidity Providers (also called "LPs") commit digital assets according to a pre-set formula that automatically determines the price of the digital assets.[5] LPs who deposit assets receive back pool-specific "receipt tokens" (or "LP Tokens") that allow the user to recover[6] their contributed assets plus a share of the fees charged by users who transact assets from the pool. LPs earn a share of the fees paid by people transacting on the AMM, paid to them programmatically by the AMM protocol.

Like other smart contracts, pools are instances of code deployed on blockchains; they are not legal entities or natural people. Pool functions are determined by and limited by their code, and only execute upon user requests. All smart contracts, once deployed, are *immutable* in the sense that their bytecode on the blockchain cannot be altered. However, the systems[7] in which they exist may be *upgradable* such that the smart contracts can be replaced. This upgrading authority may be controlled by third parties via direct private key control, via multiple signature or multiparty computation wallet, or via distributed decision-making bodies including voting collectives like decentralized autonomous organizations (DAOs) depending on the implementation. Other pools are fixed within their system; they cannot be upgraded.

Yield Aggregators

Yield Aggregators are another type of smart contract protocol that allow LPs to obtain yields on their assets—including their LP tokens—without relying upon third party intermediaries to make decisions regarding the use of those assets. LPs deposit assets to pools which themselves programmatically deposit those assets to other pools which are expected to provide a yield. Yields may come from fees, interest, or rewards of various types, depending on the protocol or application. As with other pools, LPs receive LP tokens from the Yield Aggregator pool contracts which allow the LP to withdraw their contributed assets, plus a portion of the yields obtained through the programmatic use of the contributed assets. Depending on the code used and market conditions, Yield Aggregators may deploy the aggregated liquidity

[4] *See* DeFi 101 at 13, 14.

[5] In this formula, x and y represent the assets and k represents the constant product value. The AMM calculates the prices of each asset based on their supply and demand: as x increases in supply, its price decreases to maintain a constant product value of k. As the transactions are validated by the underlying blockchain, new prices are calculated in real-time.

[6] Users who transact their assets into a pool still maintain control over their assets and can usually withdraw their liquidity-providing assets when they choose to.

[7] These "systems" are known as protocols, which are encoded rules for which computers and software applications communicate with each other. A DeFi protocol in particular governs communications between a collection of smart contracts so the software applications may work together to provide a service.

in their pools across various smart contracts including providing liquidity to AMMs, funding lending pools, borrowing from lending pools, and staking. As with AMMs, discussed above, Yield Aggregators rely on code, not human decision-making, to transact liquidity to various third party platforms.

II. BarnBridge DAO

The December 2023 BarnBridge DAO order was one of the first times the Commission explicitly addressed decentralized systems and infrastructure, announcing that a "purportedly decentralized autonomous organization" and its founders were responsible for failing to register "BarnBridge's offer and sale of structured crypto asset securities known as SMART Yield bonds."[8] However, as explained below, the order appears to conclude that smart contract pools—meaning, the code itself—were unregistered investment companies that issued "securities," without providing analysis or specific factual findings as to what exactly were the securities at issue. We respectfully request that the Commission revisit the applicability of the BarnBridge DAO order to decentralized systems and/or clarify its reasoning so that the industry can have a clear understanding of what conduct requires compliance with the securities laws.[9]

The Commission found that the "SMART Yield bonds" "offered and sold" by pools "operated" by the BarnBridge DAO were unregistered "structured crypto asset securities," and that the pools that relate to the SMART Yield bonds were unregistered investment companies. *BarnBridge DAO* ¶¶28-35.[10] Underlying both findings was the Commission's assessment that BarnBridge DAO, led by Tyler Ward and Troy Murray, heavily advertised the SMART Yield bonds as investment opportunities with frequent comparisons to debt securities and promised high rates of return and that the BarnBridge DAO funded and managed BarnBridge's operations.

According to the Commission, Ward and Murray created the BarnBridge DAO and exercised some level of influence over it. "As the two largest individual holders of voting power of the BarnBridge DAO, every proposal approved by the DAO needed, and received, Ward and Murray's votes to reach a quorum." *Id*. ¶1,5. Beginning in March 2021, BarnBridge DAO authorized the core team to conduct certain of its operations through BarnBridge DAO's multi-signature address. *Id*. ¶5. Developers hired by Ward and Murray on behalf of BarnBridge DAO coded SMART Yield smart contracts to pool crypto assets deposited by investors to be used in third-party lending platforms. *Id*. ¶16. BarnBridge DAO added offerings and modified the code for SMART Yield. *Id*. ¶20.

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[8] *See* SEC, BarnBridge DAO Agrees to Stop Unregistered Offer and Sale of Structured Finance Crypto Product, Press Release 2023-258 (Dec. 22, 2023), available at https://www.sec.gov/newsroom/press-releases/2023-258 ("This case serves as an important reminder that those laws apply to all who wish to access our capital markets, regardless of whether they are, or purport to be, incorporated, decentralized or autonomous.").

[9] On May 27, 2025, DEF and Uniswap Foundation also submitted a letter to the Crypto Task Force exclusively focused on DAOs and decentralized governance, in response to Commissioner Hester Peirce's February 21, 2025 Statement, "There Must Be Some Way Out Of Here." That letter is available here: https://tinyurl.com/42kjm8j2.

[10] *See also* BarnBridge at ¶6 ("securities issued by SMART Yield Pools attracted investors"); BarnBridge at ¶8 ("BarnBridge DAO caused the Pools to violate Section 7(a) of the Investment Company Act by offering and selling investments in more than a dozen SMART Yield Pools"); BarnBridge at ¶26 ("The SMART Yield Pools sold investors newly minted SMART Yield bonds that themselves acted as fixed income debt securities").

BarnBridge DAO received fees from users, which varied along with the lending market's interest rate yields paid to the investment pools and investor demand for the products. *Id*. ¶15. BarnBridge DAO voted to spend these fees to further its business plan as outlined in the White Paper. *Id*. ¶21. For example, BarnBridge DAO paid third party blockchain auditors to test and monitor the smart contracts to ensure they operated as predicted, *Id*. ¶20, and also used SMART Yield revenue to pay operations teams, programming development teams, website hosting, blockchain-related transaction fees, communications and marketing, and salaries to Ward and Murray. *Id*. ¶23.

The Commission concluded that BarnBridge DAO designed and deployed two types of pools that "issued" LP Tokens to "investors" that had specific features depending on the pool. *Id*. ¶26. The LP Tokens issued by those pools were marketed to "investors" as SMART Yield bonds. *Id*. The Commission also found that the SMART Yield bonds were fixed income notes, and thus, securities, issued in violation of Sections 5(a) and 5(c) of the Securities Act, and that the pools *themselves* were unregistered investment companies in violation of Section 7(a) of the Investment Company Act. *Id*. ¶¶28-30. In addition, the Commission found that the pools "offered and operated by BarnBridge DAO, were comprised of investment securities, and sold notes to investors seeking to profit from the Pools' investments." *Id.* ¶34. However, the Commission does not detail what constituted "investment securities" in this case nor provide legal analysis explaining which facts were consequential in reaching the conclusion the securities laws were violated.[11]

A. The Commission should disclaim or limit its finding that smart contract pools were Investment Companies.

The Commission found that the smart contract pools—meaning, instances of software code—were investment companies that "engaged in the business of investing, holding, and trading certain assets that were investment securities, as defined in Section 3(a)(2) of the Investment Company Act." *Id*. at ¶¶24, 27.[12] In reaching this conclusion, the Commission found that "the [p]ools, offered and operated by BarnBridge DAO, were comprised of investment securities, and sold notes to investors seeking to profit from the Pools' investments." *Id.* ¶34. In so holding, the Commission assigns a variety of actions to deployed code rather than to a person.

For example, the Commission writes, "The SMART Yield Pools *sold* investors newly minted SMART Yield bonds that themselves acted as fixed income debt securities in the form of a callable note by promising a fixed or variable return based on the performance of the Pools," and "the BarnBridge SMART Yield smart contracts *issued their own* crypto assets to investors as evidence of indebtedness, which investors could exchange or redeem in the future." *Id*. ¶26 (emphasis added). However, smart contract pools are software deployed on blockchains that cannot make legal promises and are not capable of "selling," "issuing" or owning assets as contemplated by the securities laws.

[11] *See* BarnBridge at ¶26, which asserts the SMART Yield Pools were comprised of "investment securities" but offering no supporting analysis.

[12] The Commission specifically found that the pools were investment companies under Section 3(a)(1)(C) of the Investment Company Act, which is sometimes referred to as the "40% Balance Sheet / Assets Test."

As a matter of law, a smart contract pool alone cannot be an investment company, as it cannot make the legal promises necessary to issue a security. Congress intended the Investment Company Act to regulate "persons" – defined as a natural person or a company[13] – that pool investor funds and manage securities portfolios. To the contrary, decentralized protocols are neither natural nor legal persons, and do not invest capital for profit; instead, they are software with self-executing incentives that enable autonomous and community-governed technological utility. Imposing Investment Company Act obligations on these protocols not only misunderstands their function, but also proves to be structurally unworkable as there is no legal entity or centralized management to regulate.[14]

While the Commission found that BarnBridge DAO "operated" the pools and thus "caused" a violation of the Investment Company Act, it is not clear from the order how the Commission arrived at its conclusion that the pools were investment companies, how the pools themselves could "issue" or "sell" securities, or what precisely the issued "securities" were (this latter point is discussed below). It would be helpful if the Commission's conclusions were explained with reference to specific facts and were reframed to focus on persons capable of complying with the securities laws.

B. The Commission should clarify what if any securities were at issue in BarnBridge.

In treating the pools used in BarnBridge as investment companies, the Commission expressly found that all assets held in those pools – without differentiation – were "investment securities": "[T]he *only* assets held in the SMART Yield Pools were investment securities, held for the purpose of generating the returns to pay SMART Yield Pool investors, and constituted more than [40%] of the value of each Pool's total assets" *Id*. ¶26. (emphasis added). Although the Order does not specifically list the assets held in the pools at issue, materials published on the BarnBridge website suggest that various assets, including stablecoins and LP Tokens from other smart contract protocols, were held in Barnbridge's pools during the relevant time period. *Id*. 16.[15] Thus, the Commission appears to have concluded that even certain stablecoins and LP

[13] 15 U.S.C. § 80a-2(a)(28) (2024).

[14] An emerging judicial consensus recognizes that decentralized protocols are not synonymous with the "persons" associated with them, but rather operate as autonomous systems distinct from their users and developers. In *Van Loon v. United States Dep't of the Treasury*, 122 F.4th 549 (5th Cir. 2024), the Fifth Circuit found that the decentralized protocols at issue were not capable of being owned, controlled, or altered by anyone, including their creators. In *Risley v. Universal Navigation Inc.*, 2025 U.S. App. LEXIS 4460 (2nd Cir. 2025), the Second Circuit reinforced the understanding that developers of decentralized protocols are not parties to the transactions on the protocol and thus not "issuers" for the purpose of U.S. securities law. It follows naturally that smart contract pools here are also distinguished from any "person" within the scope of the Investment Company Act.

[15] The BarnBridge Litepaper also suggests that ETH may be transacted to or from the pool smart contracts. See https://github.com/BarnBridge/BarnBridge-Whitepaper/blob/master/Litepaper.md

Tokens were "investment securities,"[16] which runs contrary to the Commission's express statements.[17]

Additionally, it appears that the Commission concluded that the LP Tokens connected to the pools in BarnBridge were securities because of the statements and promises made in the SMART Yield bonds advertisement, not because of anything inherent to the LP Tokens. However, the BarnBridge settlement order does not clearly identify which specific facts the Commission believes specifically corresponds to a securities offering.

Last, the BarnBridge order included scant analysis of whether the SMART Yield bonds themselves were securities. The Commission found that the SMART Yield bonds were notes under section 2(a)(1) of the Securities Act of 1933, as amended, and cited to the *Reves* test, which is typically used to determine if a note is the type of note that is contemplated to be subject to the federal securities laws. *Id*. ¶28 (citing *Reves v. Ernst & Young*, 494 U.S. 56, 64–66 (1990); *SEC v. Thompson*, 732 F.3d 1151, 1159 (10th Cir. 2013)). However, the Commission did not conduct an analysis of the SMART Yield bonds under *Reves*. *Id*.

We respectfully request that the Commission clarify which specific tokens in the pools were investment securities or expressly disclaim this portion of its analysis to the extent it relies upon or suggests that stablecoins or LP Tokens issued by third party protocols are investment securities.

III. The Commission should clarify that EtherDelta is limited to its specific facts and will not be applied to DeFi

In EtherDelta, the Commission settled charges against ZacharyCoburn related to his creation, deployment and ongoing management of the EtherDelta trading software and associated services, described as "an online platform that allows buyers and sellers to trade certain digital assets—Ether and 'ERC20 tokens'—in secondary market trading." EtherDelta ¶1. As explained below, because the Commission concluded that Coburn had significant unilateral control over EtherDelta and the Commission's factual findings indicate that EtherDelta was largely centralized, the EtherDelta order has no application to decentralized networks in which no entity has unilateral control over the network or user assets. It would be helpful if the Commission made it clear that EtherDelta is limited to its facts and will not be applied to DeFi.

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[16] Investment securities are defined at 15 USC § 80a-3(a)(2) as "all securities except (A) Government securities, (B) securities issued by employees' securities companies, and (C) securities issued by majority-owned subsidiaries of the owner which (i) are not investment companies, and (ii) are not relying on the exception from the definition of investment company in paragraph (1) or (7) of subsection (c)."

[17] Notably, the Commission stated that covered stablecoins and liquid staking activities do not involve the offer and sale of securities. *See* SEC, Division of Corporation Finance Statement on Stablecoins (Apr. 4, 2025), available at https://www.sec.gov/newsroom/speeches-statements/statement-stablecoins-040425; *see also* Securities and Exchange Commission Division of Corporation Finance Issues Staff Statement on Certain Liquid Staking Activities, Press Release 2025-104 (Aug. 5, 2025), available at https://www.sec.gov/newsroom/press-releases/2025-104-securities-exchange-commission-division-corporation-finance-issues-staff-statement-certain-liquid.

The order describes EtherDelta as multiple component technologies, including 1) an order book, maintained by EtherDelta on a centralized server and not on the Ethereum blockchain, EtherDelta ¶16 n.13; 2) "a website, launched by Coburn," that provided "a user-friendly interface to EtherDelta and resembles online securities trading platforms" and displayed market depth charts and trade activity, *id.* ¶2; and 3) a "smart contract," which was described as "…coded functions that allow for, among other things, the trading of any Ether/ ERC20 token pair," *id*. ¶9.

EtherDelta users sent orders directly to the "smart contract" from their wallets or used the website's user interface to interact with the EtherDelta "smart contract." *Id.* ¶9 n.8. EtherDelta supported maker- and taker-side limit orders; a trade occurred when a maker trade offer was accepted by a taker trade order. Both maker- and taker-side orders were transmitted by users in the form of "cryptographically signed intent(s) to trade," *i.e.*, signed transactions from the user's wallets. If the maker and taker trades matched, EtherDelta's ledger was updated and the state of the user wallets were later updated to reflect the trade when the trade was published to the Ethereum blockchain and confirmed by Ethereum miners.[18] *Id.* ¶18. Takers paid .03% fees, which were paid to Coburn. *Id.* ¶22. EtherDelta users were not required to register or provide identifying information to trade; users were only required to have technically compatible assets and wallet software. *Id*. ¶11.

Importantly, the Commission found that Coburn exercised "complete and sole control over EtherDelta's operations," *id*. ¶28, specifically noting that:

- At all relevant times, Coburn had exclusive technical access to and power to alter the "smart contract" relied upon by traders, including its fees. *Id*. ¶9 n.9.
- Coburn created, launched, and maintained the EtherDelta website. *Id.* ¶2, ¶9 n.8.
- Although the "smart contract" relied upon by EtherDelta was compatible with any ERC20 token, Coburn himself created "official listings" which were personally vetted by Coburn. As part of his vetting process, Coburn "sought information from token issuers (the token's name, associated website URL and a paragraph describing the token) and performed his own due diligence on these tokens." *Id*. ¶13.
- "EtherDelta's order book . . . reside[d] on a centralized server maintained by EtherDelta and not on the Ethereum Blockchain." *Id.* ¶16.
- Mr. Coburn directly and personally received the fees paid by users. *Id.* ¶6.

The Commission further found that certain tokens made available to trade on EtherDelta were securities and thus, that EtherDelta was operating as an unregistered securities exchange in violation of Section 5 of the Exchange Act. *Id.* ¶¶23-27.

EtherDelta was a centralized operation that bears little resemblance to DeFi AMMs or other DeFi protocols that are commonly used today. As explained above, the Commission found that Coburn exercised unilateral control over all public-facing and technical components of

[18] At the time EtherDelta was operating, the Ethereum network employed a Proof-of-Work consensus mechanism, which was secured by "miners." Today, Ethereum employs a Proof-of-Stake consensus mechanism, where blocks are proposed and secured by "validators."

EtherDelta, including the website, "smart contract" and orderbook, and used them together as if they were a single unitary venture for his own profit. EtherDelta was a centralized service except for the function of the order matching "smart contract," which enabled users to trade any ERC20 token. Even then, Coburn held the only private key to control that "smart contract" and operated the order book that made the "smart contract" functional for users on his centralized server.

Decentralized networks vary considerably from this model. For example, DeFi AMMs are on-chain instances of smart contract pools, and are not alterable by one centralized person or entity with unilateral control. Users access DeFi AMMs via non-custodial interfaces, and those websites are not owned or operated by an entity who unilaterally controls, operates and profits from the actual trade matching mechanism, unlike EtherDelta. Similarly, DeFi yield aggregators operate programmatically, without any entity exercising unilateral control over the network or user assets. While DeFi protocols vary considerably on their upgradeability, they either (a) distribute or decentralize control and/or the ability to modify their smart contracts, or (b) deploy immutable smart contracts that cannot be modified. In those instances, material changes to the technology come from new implementations of the protocol or application, and often involve decentralized governance systems. Overall, the key point is that decentralized networks do not place unilateral control over the technology or the ability to modify that technology in a single actor.

Additionally, DeFi AMMs are different from centralized exchanges generally in that they do not use central limit order books that match user limit orders in real time. Instead, they allow users to trade assets by using pool smart contracts. As discussed above, a pool is code that allows users to deposit assets to the smart contract and allow other users to trade against the software. Thus, users of AMMs are not offering to trade or agreeing to trade with any other entity or natural person; they are self-directing their transactions using technology functions. DeFi AMMs also programmatically distribute user trading fees to Liquidity Providers as discussed above and do not pay all fees to a single entity. DeFi AMMs allow third parties to launch pools for assets of their choice by providing liquidity and do not rely on a centralized actor to pre-qualify or determine what trading pairs will be supported.

EtherDelta materially varies from decentralized networks regarding architecture, control, and the disposition of fees. We respectfully suggest that the conclusions reached in EtherDelta be expressly limited to its specific facts, and the Commission issue guidance and or other relief expressly indicating that the findings in EtherDelta do not apply to DeFi.

IV. Conclusion

We hope this letter provides helpful commentary on the BarnBridge DAO and EtherDelta orders issued by the Commission. It would be particularly helpful to the crypto industry if the Commission would issue guidance or other relief qualifying or distinguishing its conclusions in both cases, as discussed above. In doing so, the Commission can rely on the wealth of information the Crypto Task Force has received from and provided to the industry, which also takes into account the most up-to-date technological understandings.

DEF remains committed to being a constructive partner in shaping a regulatory framework that protects consumers, ensures fair markets, and allows innovation to thrive. If you have any comments or questions relating to foregoing or would like to arrange a meeting to discuss further, please do not hesitate to contact the undersigned.

Regards,

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Ayana Dow, Esq.
DeFi Education Fund

cc: Andrew M. Hinkes, Esq.