coinbase

To:

International Organization
of Securities Commissions

Oquendo 12

28006 Madrid

Spain

19 Oct 2023

Re: Policy Recommendations for Decentralized Finance (DeFi)

Coinbase Global, Inc. (together with its subsidiaries, **Coinbase**) appreciates the opportunity to respond to the Consultation Report (the **Report**) published by the International Organization of Securities Commissions (**IOSCO**) on Policy Recommendations for Decentralized Finance (**DeFi**).

Coinbase started in 2012 with the idea that anyone, anywhere, should be able to send and receive Bitcoin easily and securely. Today, we are publicly listed in the United States and provide a trusted and easy-to-use platform that millions of verified users in over 100 countries rely on to access the crypto economy.

While we are primarily known for our centralized finance (**CeFi**) products and services, most notably exchange trading of digital assets, we care deeply about the responsible development of DeFi protocols and do not believe a healthy digital asset ecosystem can exist without them.

DeFi has the potential to improve financial services by removing unnecessary links in its supply chain. Achieving this goal requires careful consideration of these benefits while appropriately recognizing risks. Our comments are offered in this spirit.

We look forward to continuing to work with IOSCO to advocate for a harmonious global approach to the regulation of crypto-asset markets that is consistent with IOSCO's Objectives and Principles, no matter the form of the activities – CeFi or DeFi. As always, we would be delighted to share our experience in pursuit of this goal as IOSCO continues to seek public input.

Yours sincerely,

Faryar Shirzad
Chief Policy Officer
Coinbase

Introduction

We once again commend IOSCO for taking an active role in coordinating national approaches to the development of rules for crypto-asset markets. As we originally expressed in our response to IOSCO's May 2023 Consultation Report on Policy Recommendations for Crypto and Digital Asset Markets (**CDA Report**),[1] we appreciate IOSCO's continued commitment to an outcomes-focused approach to the financial market innovations from fast-emerging digital asset technologies.

At many places in the Report, we were impressed with the level of detail and care with which DeFi activity was described. It is clear that the members of IOSCO's Fintech Task Force have a firm understanding of many aspects of the digital asset ecosystem, including how popular DeFi protocols operate. At other places in the Report, it was less clear that members understand the process of decentralization, which is necessary for the establishment of workable regulation.

Our aim with this response is to convey that DeFi is real and fundamentally different from CeFi; it removes the human element of intermediation and enables new types of activities and economic relationships with different risks and benefits.

For example, a decentralized exchange (**DEX**) that operates through the use of smart contracts executed onchain, without taking custody of customer assets, is materially different from order matching that takes place on a centralized exchange like Coinbase. While natural persons may have created the DEX protocols, those protocols enable peer-to-peer trades between individuals without any human intervention. Moreover, those protocols need not be – and often are not – controlled by their creators.

The Report calls such claims a misperception. They are not. Protocols can and do operate without human intervention. And while communities of humans may collaborate to periodically update and service protocols, that does not mean that a protocol is not decentralized. Indeed, as we discuss below, decentralized protocols with community-based governance are the backbone of the internet as it exists today. The fact that you are reading this file is good evidence that you used one just now.

Understanding who, if anyone, should be held responsible for activity related to a protocol is the essential determinant of DeFi regulation. To this end, the Report has fallen short. The definition of a Responsible Person in Recommendation 2 – "the natural persons and entities of a purported DeFi arrangement or activity that could be subject to [an] applicable regulatory framework" – is in fact a tautology. Nowhere does the Report actually define a "Responsible Person" or contemplate the possibility of a DeFi arrangement or activity without Responsible Persons.

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[1] Coinbase's response to IOSCO's policy recommendations for crypto-asset markets (31 July 2023).

The final recommendations should provide direction to regulators seeking to establish sensible guardrails for responsible innovation, and DeFi projects seeking in good faith to operate within their bounds. To chart a constructive path forward for DeFi regulation, we believe the following questions need to be answered:

- How can someone contribute to a DeFi protocol without becoming a Responsible Person?

- At what point is a DeFi protocol fully decentralized?

- What is the right way for a DeFi project to proceed from development to decentralization?

Only after the process of decentralization is well understood by regulators can workable regulations be implemented. Importantly, this includes understanding the difference between economic interests and conflicts of interest. Differences of economic interest can arise between protocol users even after a project is decentralized, while conflicts of interest will cease to exist once decentralization is fully achieved. Regulatory solutions that recognize this difference are required to create a credible pathway for DeFi projects to achieve and maintain full decentralization.

The development of the internet offers lessons for DeFi regulation

The development of the internet, an open source collection of protocols used by billions of people, provides an excellent framework for how regulators can and should think about DeFi.

The origins of the internet date back to research funded in the 1960s by the Defense Advanced Research Projects Agency (**DARPA**) of the United States Department of Defense. It began out of an effort to share scarce computing resources more efficiently by creating a network from a handful of computers on university and corporate campuses.

The core innovation that made this effort successful was the creation of a suite of protocols to enable communication among computers across the network. These protocols specify how data should be packetized, addressed, transmitted, routed, and received. At their heart is the insight that the protocols cannot be proprietary or application-specific; they need to be open-source and usable for data of any kind in order to work for the network as a whole. These protocols – including the Transmission Control Protocol and Internet Protocol (**TCP/IP**), the Simple Mail Transfer Protocol (**SMTP**) used for email, and the Hypertext Transfer Protocol (**HTTP**) used to create and browse websites – remain fundamental to the internet as we know it.

The internet works thanks to these protocols and others like them in the internet protocol suite. Although many upgrades have been coded and implemented by human contributors

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over the last six decades, they remain open and permissionless. Importantly, like DeFi protocols today, they were not decentralized at the outset; they achieved this over time.

Today's internet is governed by the Internet Society, a non-profit with over 100,000 members, 100+ chapters and special interest groups, and 87 member organizations including Google, Amazon, Cloudflare, and Mozilla.[2] Internet protocols are updated through a Request for Comment (**RFC**) process, by which anyone can propose new standards or changes to how internet protocols work. These proposals are thoroughly reviewed for their technical quality, impacts on affected parties, community consensus around the change, and general usefulness. This is almost identical to how decentralized crypto protocols work today, from layer one blockchains like Ethereum to DeFi protocols like Aave.

Coinbase's suggestion for a path forward

Comparing crypto to the internet is not a slogan – it's a guide. Just as DARPA and other US government agencies designed policies to enable an open and thriving internet, financial regulators worldwide should adopt the same approach for DeFi.[3]

We urge member jurisdictions to take the time to understand DeFi protocols and the process of decentralization before proposing rules that could adversely affect their development. It is not clear from the Report that members have the same level of understanding of DeFi as they do of CeFi. By way of illustration, and as a measure of uncertainty, the word "may" is used 359 times when describing DeFi and related activities. It was used only 61 times in the CDA Report focused on CeFi activity. Adjusted for page length, the DeFi Report has three times as much 'uncertainty' as the CDA Report.

When establishing digital asset regulation, we encourage jurisdictions to focus their immediate attention on regulating CeFi entities like Coinbase. This is the right first step, and we are eager for regulatory clarity. We are a frequent and willing participant in consultations globally, and in jurisdictions like the United States where rules have not yet been proposed or industry consulted, we have actively petitioned for rules and even

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[2] Internet Society, About the Internet Society (as of 17 Oct 2023).

[3] The Clinton Administration, for example, took this approach on the regulation of the internet: "Governments should recognize the unique qualities of the Internet. The genius and explosive success of the Internet can be attributed in part to its decentralized nature and to its tradition of bottom-up governance. These same characteristics pose significant logistical and technological challenges to existing regulatory models, and governments should tailor their policies accordingly. . . . We should not assume, for example, that the regulatory frameworks established over the past sixty years for telecommunications, radio and television fit the Internet." See the Clinton Administration's Framework for Global Electronic Commerce (1 July 1997).

offered potential solutions.[4] Importantly, we are not the only digital asset market participant seeking to work with regulators globally in pursuit of clear rules for CeFi entities. There is a broad appetite for clear rules in the digital asset ecosystem.

We thank IOSCO's Fintech Task Force for their hard work and respectfully ask them to rework their proposed recommendations with an eye for ensuring that they will stand the test of time and land on the right side of history. We urge restraint in encouraging the adoption of policies that go beyond the traditional remit of IOSCO's Principles until such confidence is achieved. Failure to do so could result in significant and unnecessary harm to future financial technology.

Targeted responses to proposed recommendations

This submission does not attempt to respond point-by-point to every section, recommendation, question, and annex in the Report. The brief window for comments, only 30 business days, did not leave sufficient time for a more thorough response. However, we welcome any opportunity for further engagement with IOSCO's Fintech Task Force and DeFi Working Group.

Recommendation 1 – Analyze DeFi Products, Services, Arrangements, Activities

Recommendation 1 states that regulators should "aim to achieve a holistic and comprehensive understanding" of DeFi products, services, arrangements and activities. We agree with this goal and believe that successful regulation of DeFi can be achieved only after regulators understand the differences (and similarities) between DeFi and TradFi markets.

As we alluded to above, we are concerned that some regulators may not yet understand or appreciate why DeFi projects choose to operate as they do – and may not recognize that these choices are made for legitimate reasons.

To achieve the same outcomes as regulation of TradFi markets, DeFi regulation should recognize and address the unique attributes and goals of DeFi technology. For this reason it is important to delineate when certain activities fall within a traditional regulatory framework, and where a new framework is needed.

Recommendation 2 – Identify Responsible Persons

The definition of "Responsible Person" is the linchpin of the Report. The question of who, if anyone, must be responsible for a protocol is existential for DeFi; it marks the outer limit of the regulatory perimeter and is crucial to understanding and applying IOSCO's

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[4] Coinbase, Petition for SEC Rulemaking – Digital Asset Securities Regulation (21 July 2022); Petition for SEC Rulemaking – Digital Asset Issuer Registration and Reporting (6 Dec 2022); Petition for SEC Rulemaking – "Proof-of-Stake" Blockchain Staking Services (20 March 2023).

proposed recommendations. Yet, as we stated above, the Report fails to define this fundamental term.

The definition, as it appears in Recommendation 2, is: "natural persons and entities of a purported DeFi arrangement or activity that *could* be subject to [an] applicable regulatory framework."[5] The next sentence states that Responsible Persons "include those exercising control or sufficient influence" – but the guidance does not define "control," indicate how much influence is "sufficient," or even clarify whether the definition *ex*cludes a person who lacks control or influence. The remaining guidance provides illustrative, non-exhaustive examples of what the definition "can include" – but, again, it contains no limiting principle. The literal reading of Recommendation 2 and its guidance, setting aside the examples, is that any person or entity that *could* be a Responsible Person actually *should* be subject to regulation as such. This is not a practical or enforceable regulatory outcome.

Decentralization is not a binary state; it is a process, and it requires time and effort to achieve. In practice, a DeFi protocol is likely to proceed through phases of increasing decentralization, at each phase enabling greater levels of participation from stakeholders beyond its initial development team.

There are roughly three stages of a project's life: (1) pre-launch, (2) functional, and (3) fully decentralized. Pre-launch, the early developer team may form a company or be loosely associated as they work to complete the initial development of the project with the hope of launching it once complete. Post-launch, the project is in its functional stage, meaning it works and accomplishes its goals, but may not be fully decentralized, as the developer team may retain certain controls to enable them to pause or upgrade the code if there is a bug. Once the project is more mature, it enters its fully decentralized phase, where no person or entity can unilaterally pause or upgrade the code.

Early in a project's development, the necessary changes to a project's underlying code may be frequent and straightforwardly technical in nature. The best method for authorizing such changes has generally been a multi-sig, i.e., a mechanism requiring cryptographic signatures from a small number of well-informed experts, with immediate effect or with only a short window for review. Over time, as a protocol matures, governance tokens are typically distributed based on the extent of individuals' use of the protocol, and the best method of authorizing updates to the protocol would be a vote by the holders of governance tokens. Governance token holders are given a period of time – e.g. seven days, 30 days, or even longer – to review the proposed updates and decide how they want to vote, and optionally "exit" from the protocol by selling their tokens if they don't agree with the changes.

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[5] Report, p. 22, emphasis added.

As an example, MakerDAO is a DeFi protocol that created an overcollateralized US dollar stablecoin called DAI. It launched in December 2017 with the DAI stablecoin backed only by ETH, the native token of the Ethereum blockchain. In November 2019, MakerDAO token holders voted to launch an upgraded version of DAI that could accept multiple types of collateral and renamed the ETH-backed token to SAI. This months-long upgrade was accomplished through an established governance process, and MakerDAO token holders could have sold their MKR tokens at any point if they didn't agree with this direction. SAI token holders were free to upgrade their SAI tokens to the new DAI token, but were also free to continue using SAI if they preferred – the code powering the SAI token continued to exist and function on the blockchain without human intervention.

The ideal outcome for a DeFi project is typically the creation of a network, protocol or application that is collectively controlled by a large, widely dispersed community of users. In this model, the development team is financially incentivized not to retain control of a project indefinitely, because its maximal value is realized only after token ownership is widely distributed to the users to whom control is ultimately relinquished.

This is in stark contrast to a traditional business, where the dispersion of ownership has little or no bearing on the value of the enterprise. Becoming dispersedly owned does not on its own increase the value of a share of corporate stock, nor does it lessen the ability of the management team hired by shareholders to exercise day-to-day control of the enterprise.

DeFi protocols – unlike traditional (i.e. CeFi) businesses that distribute ownership through securities issuances – are designed to facilitate cooperation across large, diverse groups of people. In order for a protocol to serve in this capacity, everyone participating must be able to see that the protocol is fair, decentralized, and credibly neutral. For the protocol to be used by many people, and for it therefore to be valuable, the development team must give up control and distribute ownership and financial upside to the community of users.

To advance a workable regulatory regime, IOSCO needs to more carefully consider the definition of a "Responsible Person" to account for the differences between DeFi and typical corporate ownership structures. In particular, "Responsible Person" should not include a developer who no longer has unilateral control over a protocol, recognizing that control is not defined by an obvious or clear threshold. To aid in this determination, a regulator should also consider the level of proprietary information that developer has. If an open source protocol is entirely public, and there is no nonpublic information that is material to its operation, then the level of control that any particular individual may have through token ownership becomes less important.

Recommendation 3 – Achieve Common Standards of Regulatory Outcomes

As a general matter, and as described in our responses to the CDA Report and other recent regulatory consultations, we agree with the Report's focus on outcomes and are supportive of investor protection and market integrity as important regulatory objectives.

This section of the Report does well to highlight many existing types of DeFi activities. Nonetheless in our view it also warrants a note of caution. The mapping to regulated TradFi activities "may be a helpful starting point for determining what DeFi products, services, arrangements, and activities could fall within the remit of any particular jurisdiction," but it provides no guidance (nor even an acknowledgment) that any part of DeFi could possibly exist outside the perimeter of financial regulation.

The term "decentralized finance" suggests that everything under the broad umbrella of DeFi must be financial in nature. This moniker has quickly passed into common usage for a variety of reasons, including that it is a catchy portmanteau, and that, within the crypto community, it helps distinguish decentralized uses of blockchain technology from CeFi. But it is unhelpful insofar as it suggests that all DeFi activities should be regulated as financial services.

Clear rules are needed to delineate the regulatory perimeter, and what types of activities would trigger relevant obligations under the regulatory frameworks for activities such as securities trading, lending, borrowing, or collective investment schemes. Once the market knows and understands the triggers for these activities, it can make decisions about organizational structure and how best to comply with regulatory requirements.

Recommendation 4 - Require Identification and Addressing of Conflicts of Interest

We do not believe that Recommendation 4 can, as a practical matter, be implemented, because it relies on the premise that there is always a Responsible Person for which a conflict of interest could arise. However, for a DeFi project that has fully achieved decentralization, there are no such persons. At that point, the project's output is an object – lines of code – that is not capable of owing an obligation, which is a necessary condition for a conflict to exist.

Of course, the participants in a DeFi protocol may have differing economic interests, as in any market – for example, one person might take a long position and another person could take a short position on the same asset – but these differing interests are not a conflict of interest related to an obligation between participants. And, to the extent economic interests are affected by the protocol's operation, that can be addressed by participation in the governance of the project, e.g. by holding governance tokens.

We recognize that conflicts of interest can and do appear at DeFi projects that have not yet achieved decentralization. In these instances, there are likely to be individuals with

important obligations, e.g. parties to a multi-sig that is intended to be used only in an emergency to make changes to a protocol with immediate effect. In these instances, as a DeFi project is still working to build a product and user community, it is important and appropriate to establish regulatory solutions that ensure DeFi projects and their developers have a credible pathway to achieve and maintain full decentralization.

One example of where potential conflicts of interest cannot be addressed at the protocol level is MEV. Describing MEV, the Report says "the ability to reorder, insert, and otherwise control transactions enables conduct that in traditional markets would be considered manipulative and unlawful." However, it is not clear where there is a conflict of interest with the protocol – as the Report acknowledges, the potential "conflicts of interest . . . may not directly involve the provider of a DeFi product or service."

With this example, there are broader issues to consider with order sequencing. In particular, a premise that the Report leaves unstated in the MEV section is that any ordering of transactions other than strict chronological sequence is somehow suspect. We presented an alternative view in our July 2023 response to the CDA Report:

> In contrast to the lack of flexibility of order handling in TradFi markets, there is significant innovation taking place on the sequencing of transactions on decentralized and permissionless blockchain networks. For example, when a user initiates a trade on an automated market maker like Uniswap, they select the trading pair, amounts, and slippage (i.e., post-order price movement) they are willing to accept. This transaction can only be included in a block if a user's preferences – relating to more than just price – are met. This is a key differentiator of blockchain technology. Only valid transactions that are executed according to the selected preferences of the user can be included in blocks, regardless of their sequencing within the block.

> This flexibility recognizes that there is no one correct way to handle an order; it depends on the preferences of the trading counterparties. Extending the Uniswap example, if there are 10 people initiating a trade in the same pool (e.g., ETH/USDC), some of which are selling and some of which are buying, there is no "correct" sequencing. Each buyer would prefer to buy at the lowest price possible, while each seller would prefer to sell at the highest price possible. This helps to explain why so many different models are in the process of being developed, based on auctions, first-come-first-serve, encrypted mempools, preference matching, and many other transaction sequencing methodologies.

> Permitting continued experimentation by validators, block builders, and other network participants is crucial for the development and optimization of blockchain technology. This should be recognized as an important

consideration in the development of regulatory standards relating to order handling, routing, and sequencing by both centralized crypto-asset exchanges and DeFi protocols. . . We caution against taking actions that would hinder this innovation.

The Report continues to promote an unworkable and impractical recommendation: "Regulators should seek to hold a provider of a DeFi product or service responsible for identifying and, to the extent practicable, managing and mitigating the impact of MEV strategies used by miners/validators on the underlying blockchain on which the provider chooses to operate or offer the product or service." DeFi projects typically exist as applications on top of existing blockchains like Ethereum and have no control, overlap, or ability to engage with or in any way influence block producers like miners or validators. They are fundamentally different entities, many of which are pseudonymous.

More generally, MEV is used as a catch-all term that includes many types of activities, which are often beneficial to DeFi. Two examples:

- **Top-of-block MEV** (meaning the first few transactions) are typically used to conduct arbitrage between CeFi exchanges like Coinbase and DeFi exchanges like Uniswap. Bots profit from this arbitrage, but the arbitrage is good for everyone because it keeps prices aligned between many venues.

- **Liquidations** are another form of MEV. When a loan's collateral drops below a certain value on DeFi apps like Aave or Compound, the collateral is auctioned off to potential purchasers who compete to offer the protocol the best deal. MEV bots improve the speed and efficiency of these liquidations, better enabling the protocol to close out underperforming loans before incurring any losses.

MEV is not inherently bad, and there are many cases of MEV that are beneficial to end users and DeFi protocols. While we agree that developers should design their protocols to minimize MEV, it is not practical or enforceable to hold them responsible for the behavior of other entities over which they have no control or influence.

Recommendation 6 – Require Clear, Accurate and Comprehensive Disclosures

We agree with the Report's focus on the need for clear and accurate disclosures. Coinbase has long supported disclosure rules and has sought regulatory clarity on the appropriate disclosures related to digital assets. In December 2022, we submitted a proposed disclosure framework for investment contracts involving digital assets (**ICDAs**) to the U.S. Securities and Exchange Commission (**SEC**), explaining that the needs of ICDA purchasers differ substantially from purchasers of traditional securities.[6] Similarly, in our response to the CDA Report, we expressed our support for disclosure frameworks that

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[6] Coinbase, Petition for SEC Rulemaking – Digital Asset Issuer Registration and Reporting (6 Dec 2022).

provide regulators and market participants with accurate, verifiable, and decision-useful information.[7]

It is important to note, however, that consumers of DeFi products and services are distinct from investors in digital assets. The purpose of DeFi services and the manner in which protocols distribute tokens to members, is substantially different from an initial public offering of traditional securities, and, moreover, from an investment contract for digital assets.

Disclosures about capital raising are inherently different from disclosures about consumer products. Unlike an equity stake in a company, a service provided by a DeFi project does not give the holder any economic interest in the protocol itself, and DeFi products and services have no "issuer." Moreover, depending on the path to decentralization, at some point the original developer or provider of a DeFi product will no longer be in a position to serve as the primary source of useful information to consumers. Indeed, full decentralization will eliminate the risk of asymmetric information that existing securities disclosure rules are designed to address. Therefore, once decentralization is realized, there would be no continued benefit in requiring a DeFi product's original developers to issue disclosures.

To emphasize this point, while DeFi protocols may be complex, they are not "opaque," as the Report suggests. They eliminate the risk of information asymmetries, while of course retaining the risk of limited competency by some actors. Over time, we anticipate that third parties will naturally step in to mitigate any lack of understanding by consumers about the workings of particular DeFi protocols. It is safe to assume that many of those third parties will be regulated entities, like Coinbase.

In light of these distinctions, we believe that the requisite disclosure requirements for DeFi services and the tokens used to operate the protocols should more closely track disclosure regimes for other consumer products.[8] Accordingly, it will be appropriate for IOSCO to defer to non-securities regulators on many aspects of DeFi-related disclosures.

Recommendation 7 – Enforce Applicable Laws

Coinbase has long supported and sought regulatory clarity in the jurisdictions in which it operates by participating in consultations, meeting with regulators, and applying for all necessary licenses when available. We appreciate the strides that various international regulators are making towards providing New Frameworks or updating Existing Frameworks to address the unique attributes of CeFi digital asset markets.

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[7] Coinbase's response to IOSCO's policy recommendations for crypto-asset markets (31 July 2023).

[8] Coinbase, Petition for SEC Rulemaking – Digital Asset Issuer Registration and Reporting (6 Dec 2022).

As we explain above, ensuring that a regulatory regime achieves the same regulatory outcomes across activities that pose the same risks does not mean that the same rules will always be effective in achieving that goal. Many jurisdictions have yet to write rules that adequately address CeFi, let alone DeFi, digital asset activities. Regulators should do so and should be careful about applying rules to DeFi that are not fit for purpose.

While we agree generally that activity that is clearly covered by Existing Frameworks should be subject to those laws, this philosophy can be tricky to apply in the context of DeFi. The challenge is not in identifying whether certain products or activities fall within the regulated perimeter, but rather in determining how responsibility for compliance with applicable law should be applied where such products or activities are offered on a decentralized basis. The Report suggests as much by directing relevant authorities to identify Responsible Persons associated with a given project. However, as we explain above, if the matter of identifying Responsible Persons were clear, it would not feature so prominently in IOSCO's recommendations.

Conducting a facts and circumstances analysis of established projects to determine how existing law should be applied in an enforcement context, as suggested in Recommendations 2 and 7, will do little to provide clarity to the market or protect customers on a wide scale. The piecemeal evolution of the law through narrow, fact-specific cases (or worse, settlements) leaves many questions unanswered and fails to provide comprehensive guidance to those who seek to structure their affairs in a compliant manner. As Coinbase has explained in settings outside of this response, and particularly in the United States, ex ante rulemaking is the more appropriate way to provide guidance to the market about how existing law should apply to novel circumstances.

We do recognize, however, that some projects claiming to be decentralized may be decentralized in name only and that traditional theories of liability are appropriately applied in these cases. If regulators bring enforcement actions against such projects for violating existing laws, we urge regulators to be direct and transparent in identifying the facts that are, to them, dispositive in determining that certain entities or individuals appropriately bear liability – as Responsible Persons – for the project's failure to comply with applicable laws. Failing to do so misses an opportunity to clarify to the market what constitutes impermissible conduct and, again, disadvantages actors who are seeking to build in a compliant manner.

Additional Considerations

Data gaps

The Report states that there are data gaps and challenges in understanding DeFi. We agree that there is a learning curve, but we must also highlight that the code of almost all DeFi protocols is publicly available. Because blockchains keep all current and historical

state and transactions, anyone can see the status, health, and activity of any DeFi protocol at any time. This level of transparency is a stark departure from the often opaque world of traditional finance.

One point that struck us as somewhat odd were references to the need for relatively sophisticated skills and infrastructure to understand and make use of DeFi data. This concern is presented for both regulators and investors. We believe it is reasonable to expect regulators to develop these skills and infrastructure in-house, as called for in Recommendation 1. As to investors, we also do not believe this is a significant impediment. In traditional securities markets, SEC filings are often lengthy, carefully lawyered documents that also require experience and knowledge to evaluate effectively. Most retail investors never read them, and they are unlikely to have reached investment decisions based on their own independent reviews of a company's 10-K and 10-Qs. However, all investors still benefit from these disclosures because the information is digested by analysts and other market participants and thus reflected in asset prices. The same reasoning applies to DeFi.

Finally it is worth noting the important respects in which DeFi has already made improvements over traditional financial markets in terms of real time data accessibility. For example, with respect to Terra/Luna (whatever else can be said about that project itself), its demise was fully visible to the public in real time, which is an improvement over analogous situations that have taken place in the banking system.

Staking risks are vastly overstated

The Report proposes several hypothetical examples with regard to staking that it argues could pose risks of market concentration. Specifically, IOSCO imagines that validators providing staking as a service (**SaaS**) could employ sophisticated MEV strategies to earn greater rewards, leading to control over more validators and an increased risk of centralization.

These concerns are misplaced. As the Report recognizes, the development of proposer-builder separation (**PBS**), along with other innovations, is rapidly addressing centralization concerns on Ethereum. Software like MEV-Boost ensures that any staker or SaaS provider has the same access to MEV rewards, regardless of scale.[9] While the Report dismisses PBS as "merely a proposal," it is in fact already functioning to promote greater security and decentralization of the Ethereum network.

The Report also discusses risks potentially associated with liquid staking. Liquid staking is a recent innovation that allows stakers to use their staked assets for lending, trading, and other DeFi activities. As noted in the Report, this evolution addresses the opportunity

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[9] Coinbase, Earn PBS-enabled MEV rewards with Coinbase Cloud (1 Nov 2022).

cost of locking up staked tokens, and can also help overcome requisite staking thresholds.

To the extent that some approaches to liquid staking carry risks like cyberattacks, arbitrage, or contagion, these risks can and should be mitigated. In our view, mitigation can best be accomplished through the development of regulatory pathways that require, for example, strong proof of a decentralized governance system, strong multi-sig key practices, and external audits of smart contract design. The use of innovations like AI to audit smart contracts should also be supported and explored.

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We hope that IOSCO's Fintech Task Force and DeFi Working Group read and appreciate the views in this letter as a good faith effort to advance the regulatory dialogue. As we said above, we welcome any opportunity for further engagement.