October 19, 2023

International Organization of Securities Commissions
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Re: GFMA Public Comment on IOSCO's Consultation Report on Policy Recommendations for Decentralized Finance (DeFi)

The Global Financial Markets Association (**GFMA**)[1] and GBBC Digital Finance (**GDF**) board[2] welcomes the opportunity to comment on the International Organization of Securities Commission's (**IOSCO**) "Policy Recommendations for Decentralized Finance (DeFi) – Consultation Report" (**DeFi Recommendations**).[3] We support IOSCO's goals of addressing market integrity and customer protection concerns that may arise from the use of certain DeFi arrangements by supporting greater consistency of regulatory frameworks and oversight in member jurisdictions, while also encouraging responsible, beneficial innovation, through its promulgation of policy recommendations.[4] Trust remains a foundational element of effective and robust financial markets. Regulatory policy is a core component of trust, ensuring market participants operate within a set of common rules that appropriately protect all stakeholders and meet the regulatory outcomes of policymakers. Balanced regulatory policy involves weighing growth and innovation with safety and soundness, market integrity, consumer protection and overall financial stability.

As the GFMA has noted with respect to other, similar consultation reports, including IOSCO's recent Consultation Report on Policy Recommendations for Crypto and Digital Asset Markets (**CDA Consultation**), a principles-based and technology-neutral approach to crypto-asset markets

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1 GFMA represents the common interests of the world's leading financial and capital market participants to provide a collective voice on matters that support global capital markets. It also advocates on policies to address risks that have no borders, regional market developments that impact global capital markets, and policies that promote efficient cross-border capital flows to end users. GFMA efficiently connects savers and borrowers, thereby benefiting broader global economic growth. The Association for Financial Markets in Europe (**AFME**) located in London, Brussels, and Frankfurt; the Asia Securities Industry & Financial Markets Association (**ASIFMA**) in Hong Kong; and the Securities Industry and Financial Markets Association (**SIFMA**) in New York and Washington are, respectively, the European, Asian, and North American members of GFMA.

2 GDF is the leading global members association advocating and accelerating the adoption of best practices for crypto and digital assets. GDF's mission is to promote and facilitate greater adoption of market standards for digital assets through the development of best practices and governance standards by convening industry, policymakers, and regulators. GDF leads the global financial services sector as part of the Global Blockchain Business Council group, the largest and leading industry association for the blockchain technology and digital assets industry with more than 500 institutional members, and 231 Ambassadors from across 109 jurisdictions and disciplines.

3 IOSCO, Policy Recommendations for Decentralized Finance (DeFi) – Consultation Report (September 2023), *available at* https://www.iosco.org/library/pubdocs/pdf/IOSCOPD744.pdf.

4 *Id.* at 1.

that also takes into account existing regulatory regimes is the most appropriate approach to addressing crypto-asset regulation.[5] This approach is also the one most consistent with the principle of "same activities, same risks, same regulatory outcomes," which both IOSCO[6] and we[7] support.

Regulatory policy should seek to instill the same stability and protections with respect to financial services provided through the use of "DeFi protocols" and "DeFi arrangements" (as defined below) as exist for financial services provided through more traditional means (*i.e.*, not involving distributed ledger technology (**DLT**)), while allowing for, and supporting, innovation.[8] As many,[9] including IOSCO,[10] have recognized, the use of DeFi protocols and arrangements to provide financial services can, when implemented appropriately to address potential risks, support financial inclusion, promote market transparency, mitigate transaction settlement risk and reduce transaction costs, among other potential benefits to individual parties, markets and the financial system as a whole. These benefits, if fostered through responsible use and regulation, could accrue to traditional markets and the real economy as well. Thus, where regulatory oversight and institutional risk management exist with respect to the provision of financial services through the use of DeFi protocols and arrangements, this potential should not be ignored, disfavored or prohibited.

Of course, we share IOSCO's concerns regarding the events that, in part, informed the DeFi Recommendations, including the exploits, attacks and other illicit uses of DeFi protocols or arrangements referenced in the DeFi Recommendations.[11] Consistent with the principle of "same activities, same risks, same regulatory outcomes," we fully support efforts by regulators to investigate and enforce against unlawful activities by financial services providers that use DeFi protocols or arrangements, just as regulators investigate and enforce against unlawful activities by financial services providers that use more traditional technologies.

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5 GFMA Public Comment on the CDA Consultation (July 31, 2023), *available at* https://www.gfma.org/wp-content/uploads/2023/07/gfma-comment-letter-iosco-crypto-assets-consultation.pdf (**GFMA CDA Letter**).

6 DeFi Recommendations at 2.

7 *See, e.g.*, GFMA CDA Letter at 1-2.

8 Our comments in this letter are based on our members' experience in jurisdictions that already have relatively extensive rules and guidance with respect to the use of technology in connection with the provision of financial services. With respect to jurisdictions that are less advanced in this regard, we would expect that they would develop such rules and guidance for traditional markets, consistent with existing IOSCO recommendations, at the same time they develop rules consistent with the final DeFi recommendations.

9 Carapella, Francesca, Edward Dumas, Jacob Gerszten, Nathan Swem, and Larry Wall (2022). "Decentralized Finance (DeFi): Transformative Potential & Associated Risks," Finance and Economics Discussion Series 2022-057. Washington: Board of Governors of the Federal Reserve System, *available at* https://doi.org/10.17016/FEDS.2022.057; OECD (2022), Why Decentralised Finance (DeFi) Matters and the Policy Implications, OECD Paris, *available at* https://www.oecd.org/daf/fin/financial-markets/Why-Decentralised-Finance-DeFi-Matters-and-the-Policy-Implications.pdf; Fabian Schar, International Monetary Fund, *DeFi's Promise and Pitfalls* (Sept. 2022), *available at* https://www.imf.org/en/Publications/fandd/issues/2022/09/Defi-promise-and-pitfalls-Fabian-Schar.

10 DeFi Recommendations at 1.

11 *See id*. at 44-59.

In order to allow for responsible innovation and to realize the benefits of DeFi protocols and arrangements while combatting unlawful activity, it is critical that IOSCO, as a global standard setter,[12] set out clear policy recommendations that are tailored to ensure that only the appropriate entities—those that actually provide financial services through the use of DeFi protocols and arrangements—are subject to financial regulation and licensing requirements. On the other hand, recommendations that would subject mere technology developers to regulation would be inconsistent with approaches taken with respect to traditional financial markets, and would ultimately stymie innovation across all markets.

Below we lay out four foundational pillars that IOSCO leadership and members should aim to address in finalizing its DeFi Recommendations:

> **Pillar I:** IOSCO Should Clearly Define What Constitutes a "DeFi Protocol" or "DeFi Arrangement" by Distinguishing General Connectivity Technology or Infrastructure Utilizing a Peer-to-Peer Communication Protocol (Whether Involving DLT or Otherwise) from an Application Designed for Use by End-Customers/Investors to Engage in Transactions Involving Financial Instruments or Services Communicated or Recorded Through such Protocol.
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> **Pillar II:** IOSCO Should Recommend that Regulators Follow Approaches Consistent with Existing Rules and Guidance to Determine Which Responsible Person for a DeFi Arrangement Should Be Registered or Licensed and What the Scope Is for Their Regulatory Responsibilities. Regulatory Responsibilities Should Be Tailored to the Specific Nature and Extent of Risks Posed by the Particular DeFi Arrangement, in a Manner that Does Not Lead to Regulatory Arbitrage or Regulatory Barriers to Entry.
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> **Pillar III:** IOSCO Should Exercise Caution Before Recommending that Regulators Impose Requirements on the Development, Maintenance, or Use of a Technology that Would Necessitate Involvement by an Intermediary or FMI Where One Otherwise Need Not Be Involved.
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> **Pillar IV:** IOSCO Should, in Consultation with Market Participants, Foster the Development of Best Practices for Intermediaries Using DeFi Protocols and Arrangements in Order to Address Threats to Operational or Market Integrity and to Promote Retail Customer Protection.

In addition, we have laid out in Annex A our proposed revisions (in *red text*) to the text of the specific Recommendations (in *blue text*) to provide constructive feedback to help achieve IOSCO's objectives. Annex B identifies certain text in the guidance to the Recommendations that

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[12] "The International Organization of Securities Commissions (**IOSCO**) is the international body that brings together the world's securities regulators and is recognized as the global standard setter for securities regulation. IOSCO develops, implements, and promotes adherence to internationally recognized standards for securities regulation. It works intensively with the G20 and the FSB on the global regulatory reform agenda." (IOSCO Processes for Policy Development and Implementation Monitoring).

is inconsistent with the Pillars. Annex C provides responses to the DeFi Recommendations' specific questions for consultation. Annex D provides a flowchart indicating how we envision the various IOSCO recommendations should apply.

Finally, given the interconnections between the DeFi Recommendations and the CDA Consultation, as well as our extensive comments to each, we believe that IOSCO would benefit from a further consultation that allows market participants to provide comment on IOSCO's full set of proposed recommendations with respect to crypto-asset and DeFi markets on an integrated basis.

Pillar I: IOSCO Should Clearly Define What Constitutes a "DeFi Protocol" or "DeFi Arrangement" by Distinguishing General Connectivity Technology or Infrastructure Utilizing a Peer-to-Peer Communication Protocol (Whether Involving DLT or Otherwise) from an Application Designed for Use by End-Customers/Investors to Engage in Transactions Involving Financial Instruments or Services Communicated or Recorded Through such Protocol.

IOSCO's DeFi Recommendations alternatively would apply to "DeFi products, services, arrangements, and activities,"[13] "the natural persons and entities of a purported DeFi arrangement or activity,"[14] or "providers of DeFi products and services."[15] However, the DeFi Recommendations do not provide a definition for any of these concepts.[16]

Clear and precise definitions are necessary prerequisites to effective regulation. Without clarification, market participants cannot be sure whether they, or any of the activities in which they engage, would be in scope for the DeFi Recommendations and the steps that they would need to take to comply with such DeFi Recommendations. On the one hand, some market participants may fail to comply because they inadvertently fail to identify certain activities or arrangements as in scope. On the other hand, some market participants may fail to develop or use beneficial technology because they do not understand what rules apply to it. This latter uncertainty has been an important factor that has influenced prudentially regulated firms to pause from using DLT on a more widespread basis, which both inhibits innovation and efficiency and denies market participants, including end-customers using DLT, as well as the marketplace as a whole, the safety of transacting through such firms.

To address these issues, IOSCO should clearly define what constitutes a "DeFi protocol" and "DeFi arrangement" and apply its recommendations to the use of DeFi arrangements to provide financial services as opposed to the development, deployment or maintenance of DeFi protocols. IOSCO should avoid using more ambiguous phrases such as DeFi "products," "services" or

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13 Recommendations 1, 3, 7, 8, 9.

14 Recommendation 2.

15 Recommendations 4, 5, 6.

16 IOSCO notes that "DeFi commonly refers to financial products, services, arrangements, and activities that use [DLT], including self-executing code referred to as smart contracts," but at the same time acknowledges that "there is no generally accepted definition." DeFi Recommendations at 1.

"activities," which do not have adequate functional precision to enable clear application of the DeFi Recommendations.

Specifically, we recommend defining a "DeFi protocol" to mean a technology that has the following characteristics:

- *Publicly Distributed* – the technology is hosted using public DLT or other ledger technology maintained by a group of unaffiliated parties;
- *Permissionless* – the technology can be accessed without permissioning by a party other than the user;
- *Store/record of value* – the technology is designed to manage authoritative records of asset ownership;
- *User autonomy* – users can interact with the technology without surrendering control over their assets or transactions to a third party;
- *Verifiable* – the technology provides a verifiable record of transactions and ownership;
- *Impartial* – all users of the services or products that interoperate with the technology's functionalities have the same rights to access those functionalities;
- *Transparent* – material information about how the technology functions, how it was developed (including any testing or audits), how it is governed, and any material developer or governance conflicts of interest is publicly available; and
- *Aligned incentives* – the operation and governance of the technology is reasonably designed to align governance incentives with user incentives

We in turn recommend defining a "DeFi arrangement" to mean a distinct financial product or service built on or interfacing with a DeFi protocol, facilitated through technology infrastructure designed to enable end-users or investors to engage in financial transactions communicated or recorded through the DeFi protocol.

These definitions have three principal goals:

First, the DeFi protocol definition is intended to functionally distinguish decentralized from centralized protocols. In our view, the combination of characteristics set out above would largely eliminate or at least substantially mitigate the risks that the developers of the protocol or parties taking part in its governance could, or have reasonable incentives to, abuse information asymmetries or control over the protocol in a manner that could harm or otherwise disadvantage users. If a protocol did not satisfy these characteristics (*i.e.*, was more centralized in its design), and the protocol enabled users to access regulated financial services, then the party or parties responsible for developing, deploying and/or governing the protocol should be subject to

appropriate regulation like any other financial services provider (although, in some jurisdictions, they may qualify for a regulatory sandbox or similar safe harbor).

Second, the DeFi protocol definition is intended to distinguish the use of public DLT-based protocols as part of a firm's internal books and records or as a courtesy ledger that does not reflect authoritative records of asset ownership. Regulated financial institutions should not be prevented or discouraged from exploring, developing, and using internal, private, permissioned blockchain or a DLT-based books and records system. Further, the assets recorded on such a system (**Book Entry Tokens**) should not be considered financial instruments (*i.e.*, tokenized assets, crypto-assets, or digital assets); rather, Book Entry Tokens would merely represent a financial institution's book entries—for example, representing a record of, in the case of cash, the financial institution's deposit liability to its customers, and in the case of securities and other non-cash assets, the financial institutions' custody of those assets for its customers' benefit. Such recordkeeping does not affect the legal properties, risks or other characteristics of the assets. Furthermore, Book Entry Tokens are limited to use within a firm's internal systems, have no intrinsic value and would have no value or meaning outside of the firm's books and records. For these reasons, Book Entry Tokens pose no additional risks and should be subject only to existing regulations governing internal books and records.

Finally, by separately defining DeFi protocol vs. DeFi arrangement, we have sought to distinguish the different layers of the technology ecosystem in order to better tailor the potential application of regulatory requirements. In particular, we think it is important to distinguish (i) general connectivity technology or infrastructure utilizing a peer-to-peer communication network or protocol (whether involving DLT or otherwise) versus (ii) a user-facing website or other application designed for use by end-customers/investors to engage in transactions involving financial instruments communicated or recorded through a DeFi protocol or network.

The former category would generally encompass underlying public permissionless blockchains, whether a "layer 1" blockchain acting as a base-level ledger for validating and recording data or a "layer 2" blockchain that provides a scaling solution on the underlying layer 1 blockchain to make processing more efficient. These networks are typically asset or content agnostic and are more akin to the networks of routers, servers and core Internet infrastructure.

The former category would also generally include smart contracts and other DeFi protocols, as well as oracles and bridges, which provide rules or connectivity for parties to interact with each other over public permissionless blockchains. These protocols are akin to common protocols for transferring information over the Internet, such as TCP/IP, HTTP, SMTP, and FTP. Similar protocols also exist within traditional financial services, such as the FIX communication protocol. In each case the protocol is essentially just a set of common standards and specifications for sending and receiving messages and other information.

The latter category would generally include websites and applications (including application programming interfaces and certain (but not all) wallets) that enable end-customers/investors to access the underlying protocol or network. Where they are designed to facilitate transactions in financial instruments, these applications are akin to the websites, trading systems and other

applications that market participants use today to trade, clear, and settle securities and derivatives transactions through connections to underlying Internet or other telecommunications infrastructure.

Applying the DeFi Recommendations to the former category (networks or protocols) would present a number of significant challenges, similar to the challenges that would apply if similar requirements applied to core Internet network infrastructure and communications protocols. Most notably, when a protocol or network is truly permissionless and open source in nature, and does not have a central administrator or one or more parties that act to control the network or protocol, it lacks the element of centralized governance that can be responsive to traditional regulatory compliance requirements. Relatedly, despite efforts at harmonization, regulation remains specific to particular jurisdictions and particular financial instruments, which again is inconsistent with open source or permissionless networks or protocols that can be used or accessed across borders and categories of financial instruments. So applying the DeFi Recommendations to networks or protocols would in practice prevent development or use of open source or permissionless networks and protocols, which would unnecessarily harm innovation and efficiency in financial services but also in other interconnected industries more generally. Also, given that financial services regulation generally does not apply at the level of Internet network infrastructure or communications protocols, applying those requirements to DLT-based networks or protocols would violate technology neutrality.

Conversely, it also would not be technology neutral to excuse user-facing applications from financial services regulation merely because those applications connect to DLT-based networks or protocols as opposed to networks or protocols not involving DLT.

Pillar II: IOSCO Should Recommend that Regulators Follow Approaches Consistent with Existing Rules and Guidance to Determine Which Responsible Person for a DeFi Arrangement Should Be Registered or Licensed and What the Scope Is for Their Regulatory Responsibilities. Regulatory Responsibilities Should Be Tailored to the Specific Nature and Extent of Risks Posed by the Particular DeFi Arrangement, in a Manner that Does Not Lead to Regulatory Arbitrage or Regulatory Barriers to Entry.

As proposed, DeFi Recommendation 2 would encourage a regulator to "identify the natural persons and entities of a purported DeFi arrangement or activity that could be subject to its applicable regulatory framework" (such persons, the **Responsible Persons**) and subject those Responsible Persons to appropriate regulation.[17] That recommendation further states that such Responsible Persons "include those exercising control or sufficient influence over a DeFi arrangement or activity."[18]

IOSCO should be more precise in its recommendations with respect to which individuals or entities are properly considered Responsible Persons subject to financial services registration or licensing

[17] DeFi Recommendations at 22-24.

[18] *Id.*

requirements. Specifically, those requirements should only cover persons using DeFi arrangements to perform equivalent functions to the firms subject to registration or licensing in traditional markets.

In traditional markets, firms are typically subject to registration or licensing requirements only if they perform some sort of intermediation function that implicates market integrity or customer protection considerations. In particular, the sorts of functions that typically trigger registration or licensing include: discretion over the routing or execution of customer orders; access to confidential customer information; control over customer funds; solicitation and acceptance of money for investment purposes; receipt of compensation based on effecting transactions or providing investment advice; or acting in a market-making or other principal dealing capacity.

The type of technology used by a firm to perform these functions does not typically affect whether the firm triggers a registration or licensing requirement. But once a firm triggers such a requirement, its use of technology may be subject to regulation, including requirements designed to mitigate conflicts of interest and operational and technology risks and to ensure clear, accurate, and comprehensive disclosure. Importantly, in these contexts, it is the intermediary that must satisfy these requirements, not the technology developer or provider. Relatedly, the intermediary is not responsible for the use of the technology by others. So, for example, a broker who uses a vendor's order management software to route and execute its customers' orders will typically be required to take steps to mitigate the risks of using that software and provide adequate disclosure to its customers about how it handles their orders, but typically the vendor itself will not be regulated and the broker will not be responsible for use of the vendor's software by third parties.

We are concerned that DeFi Recommendations 2 and 3 could be read more expansively. Specifically, one could read DeFi Recommendation 3 to provide for a regulator to determine whether a particular technology (*i.e.*, a DeFi product, service, arrangement, or activity) can be used by a market participant to substitute for use of a market intermediary and then apply relevant market intermediary requirements to the Responsible Persons for that technology. Recommendation 2, in turn, appears to define "Responsible Persons" broadly to encompass persons involved with technology development or governance even if they do not themselves perform market intermediary functions (*e.g.*, requiring protocol developers and governance token holders to register even if they do not exercise discretion over order handling, have access to confidential information, have control over funds, or receive transaction-based compensation). Those Responsible Persons would seem in turn to have regulatory obligations with respect to uses of the technology by third parties even when they do not directly participate in such uses (*e.g.*, to prevent third parties from using the protocols to engage in manipulative trading even if they access the protocol wholly independently).

Such an approach would diverge significantly from what we see in traditional financial markets. It would be equivalent to requiring that the order management software vendor in the example above register as a broker or perhaps an exchange (or, depending on how IOSCO defines "DeFi arrangement," possibly to require developers of common protocols, such as the FIX protocol, to so register). Once registered, the person would then need to take responsibility for everyone's use

of the technology, which would in turn necessitate central handling of communications transmitted using the technology. The cumulative effects of these requirements would be to prohibit use of open source or permissionless technology in financial services and instead require financial market transactions always take place through a central intermediary instead of peer-to-peer.

There may potentially be some contexts in which such an intermediation requirement is desirable, which we discuss in Pillar III below. Outside of those contexts, however, regulators should impose requirements on Responsible Persons for DeFi arrangements in a manner consistent with the manner in which they approach the use of financial services technology not involving DLT.[19] This approach would generally entail the following:

- First, merely developing or maintaining, or contributing to the governance of, or validating or processing activity involving, a technology should not make an entity a Responsible Person subject to financial regulation, absent some ongoing discretionary authority over, or compensation based on, transactions making use of the technology. This approach would be consistent with existing rules and guidance applicable to traditional financial markets. For example, in the United States, the securities laws require "any person engaged in the business of effecting transactions in securities for the account of others" to register as a broker with the Securities and Exchange Commission (**SEC**).[20] But not every entity that is involved, to any degree, in securities transactions is required to register as a broker and comply with broker-dealer regulations. Instead, the SEC requires firms that perform certain order handling or other customer intermediation functions and receives compensation based on securities transactions (so-called "transaction-based fees") to register.[21] The SEC has exempted from broker registration providers of communications and order management software that are used to facilitate securities transactions.[22] IOSCO should follow a similar approach here and ensure that only those entities that exercise ongoing discretionary authority over, or receive compensation based on, transactions making use of the DeFi arrangements are subject to registration or licensing requirements. Other entities that merely develop or support the technology or its uses (*e.g.*, through ongoing development and maintenance, or involvement in validation or processing activity) should not be subject to such requirements. In this regard, rewards merely for

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19 Our comments in this regard are based on our members' experiences with regulations in jurisdictions that have highly advanced use of financial services technology and accordingly well developed rules and guidance in this area. Our expectation is that regulators in other jurisdictions would apply similar approaches to the use of technology, which would be consistent with overall IOSCO principles.

20 15 U.S.C. § 78c(a)(4).

21 *See, e.g.*, Sec. & Exch. Comm'n Div. Trading & Mkts., *Guide to Broker-Dealer Registration* (Apr. 2008), https://www.sec.gov/about/reports-publications/investor-publications/guide-broker-dealer-registration#II (In determining whether an entity is a broker, that entity should ask where its "compensation for participation in the transaction depend[s] upon, or is it related to, the outcome or size of the transaction or deal" and if it "receives any other transaction-related compensation.").

22 *See, e.g.*, NeptuneFI Fixed-Income System, SEC Staff No-Action Letter, 2020 WL 1042614 (Mar. 3, 2020), https://www.sec.gov/divisions/marketreg/mr-noaction/2020/neptune03042020-in.pdf; *see also* S3 Matching Technologies LP, SEC Staff No-Action Letter, 2012 WL 2948910 (July 19, 2012), https://www.sec.gov/divisions/marketreg/mr-noaction/2012/s3-matching-tech-071912.pdf.

validating blockchain activity or fees merely for processing messages, which are not explicitly tied to the value or success of financial instrument transactions, should not themselves be sufficient to trigger registration or licensing requirements.

- Second, any person subject to such a registration or licensing requirement should only have regulatory responsibility for the transactions or services over which the person has the authority to make discretionary choices or for which the person receives compensation. Any broader regulatory scope would hinder technological innovation and market efficiency by imposing regulatory obligations with respect to transactions in which the registrant is not involved, which has not been the case in traditional financial markets and is not possible to operationalize in the context of technology that is not centrally hosted and controlled. Accordingly, a broader scope would either treat DLT more stringently than other technologies or set an expansive precedent discouraging technology use more broadly.

- Third, mere use of a token as part of the operation of a DeFi arrangement should not result in the treatment of the token as a security or other financial instrument, absent some use of the token for capital raising purposes or to memorialize ongoing financial rights and obligations vis-à-vis an issuer or counterparty. For example, the DeFi Recommendations suggest that a liquidity provider token (**LP Token**) "could involve the issuance of financial instruments, including securities."[23] But, as IOSCO acknowledges, an LP Token represents an entity's pro rata interest in a liquidity pool (a feature of certain decentralized exchanges) and is redeemable at any time for the entity's portion of the pool, including accrued trading fees. In other words, an LP Token is merely a receipt for, or ledgering mechanism representing, an entity's pre-existing ownership of particular assets. In this regard, LP Tokens function similarly to book-entry, electronic warehouse receipts for a commodity. Those book entries are not treated as securities or financial instruments separate from the commodities whose ownership they represent. Requiring LP Tokens (or other tokens that are not used to raise capital or to memorialize ongoing financial rights and obligations vis-à-vis an issuer or counterparty) to be treated as securities or other financial instruments would be inconsistent with the operation of traditional financial markets and would inappropriately apply financial regulation to certain assets that would not, but for their use in a DeFi arrangement, otherwise be subject to those rules.

  In contrast, to the extent a token is use for capital raising purposes, then that capital-raising transaction should be regulated as a financial instrument transaction, consistent with existing rules applicable to such types of transactions. In this regard, we agree with the observation made in the DeFi Recommendations that entities can use "blockchain-enabled means for capital raising" purposes and, when they do so, they should "take appropriate steps to ensure compliance with applicable securities laws."[24]

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23 *Id.* at 6-7, 26.

24 DeFi Recommendations at 112.

- Fourth, a party who exercises authority over a DeFi arrangement as a tool to provide trading facility, brokerage, clearing, settlement, asset management or other regulated financial services should be subject to regulation to the same extent as an intermediary providing the same services using a different technology. So, for example, an entity that, for compensation, uses a DeFi application to route and execute its customers' orders for commodity derivatives transactions would be required to register with the appropriate regulator (*e.g.*, in the United States, with the Commodity Futures Trading Commission (**CFTC**)) and comply with relevant rules regarding, among other things, customer protection and market integrity. Thus, any entity that provides these types of services, regardless of whether it uses DLT or any other type of technology to do so, would be subject to the same regulatory requirements.

  We do not think persons should be able to hide behind superficial claims of decentralization in order to avoid such regulation. So, for example, if the services described above were ostensibly provided by a purported decentralized autonomous organization (**DAO**), but a single person (or group of persons acting in concert pursuant to an explicit agreement) was able, either through ownership of governance tokens, administrative privileges or otherwise, unilaterally to receive/direct the relevant compensation or exercise discretionary control over customer order information, routing, or execution, then the presence of the purported DAO should not change the analysis. On the other hand, the mere presence of a DAO to coordinate ongoing maintenance and development of open source technology protocols that others can in turn use to provide financial services should not subject the DAO or its participants to regulation absent the sort of control over the provision of financial services described in the prior sentence. In each instance, the regulatory analysis should not turn on labels, but rather on the functional distinction between mere technology development, on the one hand, versus the performance of intermediary functions (*e.g.*, discretion over the routing or execution of customer orders, access to confidential customer information, control over customer funds, or receipt of compensation based on effecting transactions or providing investment advice) that implicate market integrity or customer/investor protection regulation.

- Finally, an intermediary using a DeFi arrangement as a tool to provide financial services would, consistent with existing regulatory requirements, be required to diligence any technology it uses to ensure that it does not pose undue or unmitigated operational or market integrity or customer protection risks, just as traditional financial services providers must diligence their technology service providers today.[25] Ultimately, this approach is consistent with the principle of "same activities, same risks, same regulatory outcomes" and would ensure consistent treatment of financial services providers regardless of the types of technology they utilize to provide those services.

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[25] *See, e.g.*, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency, *Interagency Guidance on Third-Party Relationships: Risk Management* (June 7, 2023), *available at* https://www.federalreserve.gov/supervisionreg/srletters/SR2304a1.pdf.

One particular area of consideration in this regard is the treatment of public permissonless blockchains. We understand IOSCO's concern that use of such blockchains can create regulatory and enforcement challenges, including given the ability to use such blockchains on an anonymous or pseudonymous basis.[26] On the other hand, and as noted above, both IOSCO and we have recognized the potential benefits of blockchain technology. We think the approach laid out above would strike the right balance to use of such technology by ensuring that the intermediaries who use it are subject to appropriate regulation, which in turn would foster better standards for the development and use of that technology and enhance regulatory transparency (*see* Pillar IV below).

We acknowledge, however, that this approach could result in different market structures from what we see in many traditional markets. For example, in traditional public securities markets, asset ownership is typically recorded by a central securities depository and multilateral execution functionality is typically provided by an exchange or other centrally operated trading facility, whereas DeFi protocols, by making use of DLT, can be designed to allow transactions to take place without the involvement of these or other financial market infrastructures (**FMIs**). There are benefits and risks associated with the ability to transact without the involvement of an FMI. As we discuss under Pillar III below, we think regulators should carefully assess whether or in what instances involvement of an FMI should be mandated. In addition, as we discuss under Pillar IV below, an intermediary that provides financial services using a DeFi arrangement that does not in turn involve an FMI should follow certain best practices to mitigate the risks of such activity.

Pillar III: IOSCO Should Exercise Caution Before Recommending that Regulators Impose Requirements on the Development, Maintenance, or Use of a Technology that Would Necessitate Involvement by an Intermediary or FMI Where One Otherwise Need Not Be Involved.

Today many financial markets operate on a largely intermediated basis, with end-customers/investors accessing the market through brokers, dealers, asset managers, exchanges, clearing houses and similar firms. With certain limited exceptions, this use of intermediaries has not been mandated by regulation. Rather, it has resulted because intermediaries provide services that end-customers/investors find valuable. And because the role played by intermediaries can present risks, regulatory frameworks have been developed to address those risks.

On the other hand, peer-to-peer trading not involving intermediaries can and does exist in certain markets, such as private securities transactions, loan or claims trading, and certain over-the-counter derivatives. Of course, given the settlement and credit risks involved, this sort of trading is more difficult when parties do not already know and trust each other. DLT can help solve that issue by enabling parties to self-custody their assets and use transparent and immutable software to transfer those assets simultaneously against payment. These risk-mitigating aspects of DLT can enable broader peer-to-peer (*i.e.*, non-intermediated) trading activity than is the case with other technologies.

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[26] *See, e.g.*, DeFi Recommendations at 84, n. 134.

It is possible that the expansion of peer-to-peer trading, especially on a pseudonymous basis, while beneficial in many respects (*e.g.*, lower costs, less credit risk, etc.), can also raise challenges for regulatory frameworks historically premised on regulation of intermediaries. For example, some of the data gaps referenced by the DeFi Recommendations can result from peer-to-peer, pseudonymous trading. In addition, the absence of an FMI can raise questions around responsibility and accountability for operational or financial losses or threats to market integrity or customer protection. We are concerned, however, that broadly defining the concepts of "DeFi products, services, arrangements, and activities" and "Responsible Persons" would have the effect of requiring trading to take place through intermediaries and FMIs without a full assessment of the relative costs and benefits of such a requirement.

Again, the experience from traditional financial markets is illustrative. As noted above, in most instances, regulations do not mandate the use of intermediaries or FMIs. The few contexts where market participants are required to trade through intermediaries or FMIs typically involve derivatives transactions that present greater potential for risks to investors or systemic risks. Even for those transactions, requirements to trade through intermediaries or FMIs (such as registered dealers, execution facilities and/or clearing houses) are generally limited to certain retail-facing transactions or specified types of derivatives that have been identified through transparent, product-specific public consultations and regulatory assessments of particular market characteristics. We think similar assessments should take place before requiring that smart contracts and other DLT-based protocols be administered by regulated intermediaries responsible for all transactional activity making use of those protocols.

We understand that some have considered whether regulation of the technology development lifecycle, rather than just the regulation of financial services intermediaries and financial market transactions, may be necessary. For example, rather than regulating how intermediaries use technology to provide financial services or requiring certain types of transactions to take place through a regulated intermediary, one might require the developer(s) of technology that provides certain functionalities to follow certain regulatory processes (such as testing and possibly pre-approval) before making that technology available. This approach would be inappropriate and inconsistent with a technology-neutral approach to regulation. As noted, existing financial services regulators regulate financial services intermediaries and have rules requiring those intermediaries to appropriately diligence and, on an ongoing basis, manage their use of technology.

Those regulators, with very limited exceptions,[27] do not directly regulate the development or delivery of technology by third-party service providers to regulated financial institutions. Taking a different approach would unduly stifle the development of new technologies and, in certain jurisdictions, contravene free speech protections. Regulators may, justifiably, have questions and concerns about new technologies, including how their use may impact market integrity and

[27] *E.g.*, 12 U.S.C. 5466 ("Whenever a service integral to the operation of a designated financial market utility is performed for the designated financial market utility by another entity, whether an affiliate or non-affiliate and whether on or off the premises of the designated financial market utility, the [appropriate regulator] may examine whether the provision of that service is in compliance with applicable law, rules, orders, and standards to the same extent as if the designated financial market utility were performing the service on its own premises.").

customer protection, but they can address those, as they do today, through supervision of regulated financial services providers. At the most, regulators should consider whether technology developers should, consistent with the transparency characteristic required by our proposed DeFi protocol definition above, be subject to minimum standards of disclosure regarding functionality, development (including testing and audit), and conflicts of interest (and, to the extent that conflicts of interest relate to any party that may have discretionary authority in relation to implementation of the technology on any network, regulators should consider how such conflicts could be appropriately managed when there is actual impact in relation to a financial product or service).

Pillar IV: IOSCO Should, in Consultation with Market Participants, Foster the Development of Best Practices for Intermediaries Using DeFi Protocols and Arrangements in Order to Address Threats to Operational or Market Integrity and to Promote Retail Customer Protection.

As noted, we recognize that events of the past few years have highlighted the ability of bad actors to use smart contracts and other DLT-based protocols toward illicit ends. Bad actors, of course, are not unique to these protocols or the crypto-asset markets, but we understand IOSCO's focus on them, particularly in the context of the DeFi Recommendations. In this regard, we generally agree with Recommendation 1, which encourages regulators to analyze DeFi arrangements in order to "achieve a holistic and comprehensive understanding" of such arrangements and "assess what technological knowledge, data, and tools the regulator needs to understand, and analyze" DeFi arrangements.[28] We also generally agree with Recommendation 8, which encourages cross-border regulatory cooperation[29] and Recommendation 9, which encourages regulators to understand the interconnections between DeFi markets, crypto-asset markets and traditional financial markets.[30]

In connection with these recommendations, we think IOSCO should take further steps to foster best practices for intermediaries using DeFi arrangements. Although, as noted above, it is possible to access DLT-based protocols without using an intermediary, we expect the role of regulated intermediaries to expand once there is greater regulatory and legal certainty regarding their use of DeFi arrangements. As has been the case in other markets, these intermediaries can provide a focal point for broader enhancements to the market ecosystem.

In particular, we think regulators should work with market participants to develop standards that intermediaries can apply when assessing DeFi protocols in the key areas of protocol governance, financial risks (including in relation to settlement finality, liquidity and credit risks, and default management), operational and technology risks (including in relation to oracles and bridges), anti-money laundering, and market and regulatory transparency. An important consideration when making these assessments should be allocation of risk and liability as among users of the DeFi protocol and parties taking part in the development and governance of the protocol. To the extent an intermediary concludes that a particular DeFi protocol poses unacceptable risks in these areas,

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28 DeFi Recommendations at 19.

29 *Id.* at 37-39.

30 *Id.* at 39-42.

the intermediary could condition its use of the protocol (*i.e.*, its provision of financial services through a DeFi arrangement involving that protocol) on the involvement of an FMI to take central responsibility for the management and allocation of these risks. On the other hand, in other cases an intermediary could conclude that the design and governance of the protocol is sufficient, together with other risk-mitigating measures employed by the intermediary, to proceed with providing a DeFi arrangement involving the DeFi protocol without any FMI involvement.[31] In either event, these assessments should also inform how relevant regulations apply to the intermediary's use of the DeFi arrangement (*e.g.*, what capital or liquidity standards should apply).

* * *

[31] Additionally, in instances in which a DeFi protocol would be considered to be systemically important, regulators should consider providing principles within which such arrangements would need to operate, consistent with those they have provided for FMIs in the traditional finance space (*e.g.*, ensuring the integrity and resilience of the system, access and settlement finality, etc.). The Responsible Person(s) of any DeFi arrangement involving that DeFi protocol should be allowed to ascertain how to comply with such principles. Compliance with such principles should in turn be subject to supervisory review and oversight.

The continuing development of DeFi protocols and arrangements and the broader digital asset ecosystem motivates all market stakeholders to look to the future. We value the attention that IOSCO has directed toward DeFi, and urge IOSCO, in its role as a global standard setter, to adopt a technology-neutral approach and embrace the "same activities, same risks, and same regulatory outcomes" principle that will promote legal clarity and enable the further advancement of innovative technologies to the benefit of all.

We very much appreciate the opportunity to comment on the DeFi Recommendations and we look forward to engaging with IOSCO further, as may be helpful. If you have any questions, or you would like to discuss the points raised in this letter, please feel free to contact us as we look forward to ongoing collaboration on this important topic.

Yours faithfully,

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Annex A

Recommendation 1 (Analyze Use of DeFi ~~Products, Services,~~ Arrangements~~, and Activities~~ to ~~Assess Regulatory Responses~~ Provide Financial Services): A regulator should assess whether particular technologies qualify as DeFi protocols or DeFi arrangements, and analyze the use of DeFi ~~products, services,~~ arrangements~~, and activities~~ to provide financial services occurring or located within its jurisdiction with a view to applying its Existing Framework or New Framework, as appropriate, in accordance with the principle of "same activity, same risk, same regulatory outcome." To do so, a regulator should aim to achieve a holistic and comprehensive understanding of such use of DeFi ~~products, services,~~ arrangements~~, and activities~~, including through consultation with DeFi stakeholders. A regulator should assess what technological knowledge, data, and tools the regulator needs to understand, and analyze such use of DeFi ~~products, services,~~ arrangements~~, and activities~~ to inform regulatory responses.

We agree that it is crucial for regulators to better understand DeFi arrangements and how Responsible Persons use those arrangements to provide financial services. Our proposed revisions align this Recommendation with the Pillars described above. We also generally agree, consistent with the Recommendation 1 guidance, that it would be helpful for regulators to seek to better understand the use of DeFi arrangements to provide financial services at an enterprise level, functional level and technical level.[32] Regular consultation with market participants is particularly important given IOSCO's stated concerns regarding resource constraints and other limitations.[33] Furthermore, we strongly agree that regulators should incorporate blockchain analytical tools and other innovative technologies to enhance their information-gathering abilities.[34]

Recommendation 2 (Identify Responsible Persons): A regulator should aim to identify the natural persons and entities ~~of a purported~~ who use a DeFi arrangement ~~or activity that could be~~ to provide financial services subject to its applicable regulatory framework (Responsible Person(s)). In doing so, a regulator should act in a manner consistent with its existing rules and guidance to ensure a technology-neutral approach to licensing and registration requirements for Responsible Persons. These Responsible Person(s) may include, based on the relevant facts and circumstances, those exercising control or sufficient influence over a DeFi arrangement through ongoing discretionary authority over, or receiving compensation based on, transactions making use of a DeFi arrangement ~~or activity~~. Responsible Persons should exclude those persons or entities not directly involved in providing the regulated financial service or activity, but who are involved in developing, maintaining, or contributing to the governance, or technology infrastructures of, a DeFi arrangement.

Our proposed edits to Recommendation 2 are primarily intended to align it with our comments as set out in Pillar II—Responsible Persons should include those who use a DeFi arrangement to provide financial services and receive compensation based on, or exercise ongoing discretionary

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32 *Id.* at 19-22.

33 *Id.* at 21.

34 *Id.*

authority over, transactions making use of that DeFi arrangement. We agree with the associated guidance that focusing on labels is unproductive;[35] instead, as noted, the recommendations should apply based upon the activities of a person that uses a DeFi arrangement to provide financial services. In this regard, however, the guidance should be revised to center the facts and circumstances analysis on the types of activities that demonstrate that an entity has discretionary authority over, or receives compensation based on, transactions making use of a DeFi arrangement, instead of the proposed broad analysis of which entities have "control" or "influence" over a DeFi arrangement. Concepts such as "control" and "influence" are vague and could leave the market uncertain as to which persons are Responsible Persons subject to financial regulation (including licensing requirements) and capture persons that, in traditional markets, would not be subject to such regulation.

Recommendation 3 (Achieve Common Standards of Regulatory Outcomes): A regulator should use Existing Frameworks or New Frameworks to regulate, supervise, oversee, and address risks arising from financial services provided through use of DeFi ~~products, services, and activities~~ in a manner consistent with IOSCO Standards. The regulatory approach should be functionally based to achieve regulatory outcomes for investor protection and market integrity that are the same as, or consistent with, those that are required in traditional financial markets. Where DeFi arrangements are used (i) in connection with traditional financial instruments or (ii) by traditional financial market service providers, a regulator should take a technology-neutral approach (i.e., an approach that focuses on activities and risks conducted or posed by the use of technology, not the technology itself) and apply existing frameworks wherever possible.

We agree that applying existing frameworks (*e.g.*, existing IOSCO principles and regulations promulgated pursuant to those principles) makes sense where DeFi arrangements are used in connection with traditional financial instruments or by traditional financial market service providers.[36] This approach would be consistent with the principle of technology neutrality, as it would not subject firms to different regulatory standards merely based on the type of technology employed by such firms.

We also agree with the emphasis in the guidance placed on investor protection and market integrity.[37] However, the reference to the fact that a DeFi arrangement (or a part thereof) might also be a CASP (and, therefore, also subject to the recommendations in the CDA Consultation) further reinforces the necessity of an additional consultation that considers both the DeFi Recommendations and the CDA Consultation. Absent an additional consultation, IOSCO will not receive the benefit of market participants' views on the comprehensive set of crypto-market recommendations.

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35 *Id.* at 22-23.

36 *Id.* at 25.

37 *Id.*

The mapping exercise provided in the guidance is helpful in generally identifying the types of activities that constitute the provision of financial services and could subject a firm providing those services to the DeFi Recommendations. The guidance, which IOSCO notes is meant to be "a helpful starting point," should make clear that financial regulation (including licensing requirements) should apply based upon a careful review of the particular facts and circumstances of an entity and the services it provides (and not based upon titles, labels or generalizations about DeFi markets).[38]

Recommendation 4 (Require Identification and Addressing of Conflicts of Interest): In applying Existing Frameworks or New Frameworks, a regulator should seek to require providers of regulated financial services using DeFi ~~products and services and other Responsible Persons, as appropriate~~ arrangements to identify and address conflicts of interest, particularly those arising from different roles and capacities of, and products and services offered by, a particular provider and/or its affiliates. These conflicts should be effectively identified, managed and mitigated by the providers of regulated financial services using DeFi arrangements and supervised by the regulator of such financial services provider. For example, in circumstances, such as where a provider of financial services using a DeFi arrangement also exercises self-regulatory organization authority, a ~~A~~ regulator could ~~should~~ consider whether certain conflicts are sufficiently acute that they cannot be effectively mitigated, including through effective systems and controls, disclosure, or prohibited actions. This may include requiring more robust measures such as legal disaggregation and separate registration and regulation of certain activities and functions to address this Recommendation.

We agree that, like traditional financial services providers, it is essential for providers of financial services using DeFi arrangements to identify, manage and mitigate conflicts of interest. Consistent with our comments to the CDA Consultation, we do not believe that disaggregation is appropriate outside of the narrow circumstances where such treatment is required under existing regulations for traditional financial services providers, such as where a provider of financial services also exercises self-regulatory authority.

The guidance suggests that regulators should seek to require Responsible Persons to address conflicts "that do not directly involve the [Responsible Persons] but have an adverse impact on their users/investors."[39] In addition to this guidance being vague, it would likely be challenging for an entity to address conflicts in which it is not involved. Instead, consistent with the text of the recommendation as revised and existing regulatory requirements, IOSCO should focus on requiring firms to identify, manage and mitigate conflicts that arise from an entity's own activities over which it has control.

Recommendation 5 (Require Identification and Addressing of Material Risks, Including Operational and Technology Risks): In applying Existing Frameworks or New Frameworks, a regulator should seek to require providers of regulated financial services using DeFi ~~products~~

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38 *Id.* at 25-30.

39 *Id.* at 31.

~~and services and other Responsible Persons, as appropriate,~~ arrangements to identify and address material risks, including operational and technology risks. These risks should be identified and effectively managed and mitigated by such regulated financial services providers and supervised by its regulator. Only in exceptional circumstances should a ~~A~~ regulator ~~should~~ consider whether certain risks are sufficiently acute that they cannot be effectively mitigated and may require more robust measures to address this Recommendation.

See comments to Recommendation 4, above. The associated guidance first suggests that regulators may impose risk management framework requirements or "fit and proper" standards requirements on firms.[40] The guidance should clarify that these types of requirements and standards apply to the extent such standards apply to firms providing the same type of financial services in traditional markets. This approach would be consistent with the principle of "same activities, same risks, same regulatory outcomes" and the approach suggested later in the guidance, which notes that the application of requirements with respect to service providers (*e.g.*, due diligence and monitoring) should be "similar to those applied to Responsible Persons in traditional finance."[41] We also agree that regulators should only consider additional regulatory requirements to the extent a firm's activities present "unique operational and technological risks" that cannot be addressed by existing regulations.[42] In this regard, entities that use DLT should, like any firm that employs a technology solution, properly diligence that technology prior to using it. Mere use of DLT, however, should not be considered a unique technological risk. Further to our comments to Recommendation 2 above, we also recommend revising the guidance regarding holding those with "control or sufficient influence" over a DeFi product to instead focus on applying regulation to entities that provide financial services using a DeFi arrangement.

Recommendation 6 (Require Clear, Accurate, and Comprehensive Disclosures): In applying Existing Frameworks or New Frameworks, a regulator should seek to require regulated financial services providers ~~of~~ using DeFi ~~products and services and other Responsible Persons, as appropriate~~ arrangements to accurately disclose to users and investors comprehensive and clear information material to the products and services offered in order to promote investor protection and market integrity. Consistent with the approach taken in traditional financial markets, the extent and nature of such disclosures should take into account relevant market characteristics and may be tailored to the technology and particular type of users and investors (for example, whether the disclosure is to a retail or institutional user or investor).

We agree that providing clear, accurate and comprehensive disclosure by Responsible Persons is important where DeFi arrangements are used to provide financial services, just as such disclosures are important in the context of traditional markets. In this regard, the same regulatory disclosure requirements should apply regardless of whether an entity uses a DeFi arrangement to provide financial services, though we recognize that the actual disclosures likely will differ based on how the particular financial services are provided (*e.g.*, the type of technology used to provide those

40 *Id.* at 33.

41 *Id.* at 34.

42 *Id.* at 33.

services). The associated guidance suggests that such disclosure should include a "plain-language description of material risks."[43] While we agree that plain-language disclosures may be useful for certain customers (particularly retail customers), other investors (particularly sophisticated, institutional investors) may prefer more technical disclosure. Thus, consistent with existing regulations and our comments to the CDA Consultation, IOSCO should recommend that disclosure requirements take into account relevant product and market characteristics as well as the type of users or investors receiving the disclosure.

Recommendation 7 (Enforce Applicable Laws): A regulator should apply comprehensive authorization, inspection, investigation, surveillance, and enforcement powers, consistent with its mandate, to regulated financial services providers using DeFi ~~products, services,~~ arrangements~~, and activities~~ that are subject to Existing Frameworks and New Frameworks, including measures to detect, deter, enforce, sanction, redress and correct violations of applicable laws and regulations. A regulator should assess what technological knowledge, skills, resources, data and tools the regulator needs to appropriately enforce applicable laws.

We agree with Recommendation 7, as revised. We also agree with the guidance to this Recommendation, which, among other things, encourages regulators to enforce their rules, supervise licensed entities and bring enforcement actions where appropriate.[44] With respect to emerging technologies, IOSCO should encourage regulators to address potential concerns, to the extent practicable, through rulemakings and clear regulatory guidance, first, rather than through enforcement.

Recommendation 8 (Promote Cross-Border Cooperation and Information Sharing): A regulator, in recognition of the cross-border nature of DeFi ~~products, services,~~ protocols and arrangements, ~~and activities,~~ should have the ability to cooperate and share information with regulators and relevant authorities in other jurisdictions with respect to identifying such protocols and arrangements~~, and activities~~ in order to facilitate investigations and encourage the development of common standards, as well as the harmonization and mutual recognition of regulatory requirements across jurisdictions. This includes leveraging existing or having available cooperation and information sharing arrangements and/or other mechanisms to engage with regulators and relevant authorities in other jurisdictions. These should accommodate the authorization and on-going supervision of regulated persons and entities and enable broad assistance in enforcement investigations and related proceedings. A regulator should also set a minimum standard for procedural safeguards with respect to data confidentiality and the protection of personal privacy, as well as consistency in information sharing arrangements and requests, with a further goal of achieving consistency with existing safeguards to the extent possible.

Consistent with the guidance associated with this Recommendation and our comments to the parallel recommendation in the CDA Consultation, we support multilateral coordination among

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[43] *Id.* at 35.

[44] *Id.* at 36.

regulators. Such coordination can help to (i) facilitate timely information sharing regarding cross-jurisdictional concerns, (ii) encourage the development of best practices and (iii) mitigate regulatory arbitrage across jurisdictions. We also support the particular areas of cooperation set out by the guidance (*i.e.*, emerging risks, registration/authorization, supervision and enforcement),[45] which are consistent with regulators' existing practices with respect to traditional financial markets. IOSCO should also encourage regulators to have safeguards around data confidentiality and to protect personal privacy.

Recommendation 9 (Understand and Assess Interconnections Among the DeFi Market, the Broader Crypto-Asset Market, and Traditional Financial Markets): When analyzing DeFi ~~products, services,~~ arrangements ~~, and activities~~, a regulator should seek to understand, including through consultation with DeFi stakeholders, the interconnections among the financial services (including financial products) provided through DeFi arrangements ~~used to offer financial services~~, the broader crypto-asset market, and also the traditional financial markets. In so doing, a regulator should consider how those interconnections impact risks to investor protection and market integrity, how these interconnections might present opportunities for improvements to traditional financial markets and how they might identify further regulatory touchpoints, including potential Responsible Persons. A regulator should, as appropriate, seek to employ, maintain and develop suitable methods for monitoring and assessing use of DeFi ~~products, services,~~ arrangements ~~, and activities~~, including by taking into account evolving technological tools and best practices.

We agree that regulators should understand interactions between different markets. While we also agree that regulators should consider how those interconnections may pose risks, including with respect to investor protection and market integrity,[46] it is also important for regulators to consider how such interconnections might also present opportunities for improvements across markets. Consistent with the guidance to this Recommendation, we agree that regulators should consider which data sources are appropriate in order to fulfill their monitoring and other regulatory obligations.[47]

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45 *Id.* at 38-39.

46 *Id.* at 40.

47 *Id.* at 41-42.

Annex B

This Annex provides an illustrative sampling of text in the guidance to the Recommendations that is inconsistent with the Pillars described above, using Pillars I and II as examples. In addition to revising the text of the Recommendations as suggested, IOSCO should ensure that the accompanying guidance also is consistent with the Pillars.

Pillar I provides that IOSCO should clearly define what constitutes a "DeFi protocol" or "DeFi arrangement" by distinguishing general connectivity technology or infrastructure utilizing a peer-to-peer communication protocol or network (whether involving DLT or otherwise) from an application designed for use by end-customers/investors to engage in transactions involving financial instruments or services communicated or recorded through such protocol.

The guidance to each of the recommendations includes references to "DeFi products, services, arrangements, and activities," (or similar phrase) which should be revised to reference only those DeFi arrangements described above. Furthermore, the guidance suggests that the recommendations may apply beyond those applications designed for use by end-customers/investors to engage in transactions involving financial instruments. For example, the guidance to Recommendation 3 provides: "DeFi products, services, arrangements, and activities that *involve* regulated financial instruments, including securities, in a particular jurisdiction should be subject to applicable laws."[48]

Pillar II provides that IOSCO should recommend that regulators follow approaches consistent with existing rules and guidance to determine which Responsible Person for a DeFi arrangement should be registered or licensed and what the scope is for their regulatory responsibilities. Regulatory responsibilities should be tailored to the specific nature and extent of risks posed by the particular DeFi arrangement, in a manner that does not lead to regulatory arbitrage or regulatory barriers to entry.

Various aspects of the guidance could be read to apply the recommendations beyond the Responsible Persons that use DeFi arrangements to provide financial services as described above. For example:

- The guidance to Recommendation 3 suggests applying the recommendations directly to technologies, rather than to the intermediaries using those technologies: "Regulators should consider how best to apply their Existing Frameworks or New Frameworks to DeFi products, services, arrangements, and activities. This may include, among other things, IOSCO Standards and laws applicable to issuers, exchanges, trading systems, market intermediaries (including brokers, dealers, investment advisors, custodians, clearing agencies, transfer agents, settlement services, and other service providers), as well as collective investment schemes, hedge funds and other private investment vehicles."[49]

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48 *Id.* at 24 (emphasis added).

49 *Id.*

- The guidance to Recommendation 2 suggests the recommendations could be applied to mere technology providers or developers as well: "Code could also be designed and updated through the deployment of automated methodologies – including those that utilize artificial intelligence or other technologies. For such cases, the person or entity that is responsible for deploying or using such methodologies could also be considered in the assessment of Responsible Persons."[50]

- The guidance to Recommendation 2 further suggests that merely contributing to governance or administrative aspects of a technology is sufficient to make a person a Responsible Person: "Depending upon the facts and circumstances, such Responsible Person(s) can include, for example: . . . holders and/or voters of governance/voting tokens; . . . those with administrative rights to smart contracts and/or a protocol (*i.e.*, with the ability to alter the coding or operation of the protocol to some degree); . . . [and] those who have or take on the responsibility of maintaining/updating the protocol or other aspects of the project, such as access rights."[51]

The guidance would also seem to apply the recommendations with respect to crypto-assets that are not properly considered financial instruments. For example, the guidance to Recommendation 3 suggests that LP Tokens should be treated as securities or some other form of financial instrument: "Lending/borrowing products or services that offer and sell interests in their pools in exchange for crypto-assets. In these cases, market participants deposit crypto-assets into pools in exchange for an interest in the pool. These pool interests are represented by other crypto-assets or tokens that represent the depositor's pro rata value of the lending pool. The holder of the pool interest represented by the token can obtain value from it by trading it in secondary markets, borrowing against it, or by presenting it to the pool for redemption of the crypto-asset deposited and all accrued pro rata income."[52]

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50 *Id.* at 23.

51 *Id.* at 23-24.

52 *Id.* at 26.

ANNEX C

***Question 1*: Do you agree with the Recommendations and guidance in this Report? Are there others that should be included?**

Please see above. In addition to providing four Pillars that should be considered across the DeFi Recommendations, we have also included suggested line edits to each Recommendation, and have flagged illustrative instances where the associated guidance is inconsistent with the Pillars.

***Question 2*: Do you agree with the description of DeFi products, services, arrangements, and activities described in this Report? If not, please provide details. Are there others that have not been described? If so, please provide details.**

Please see above. As detailed in Pillar I, we recommend that the DeFi Recommendations apply only to Responsible Persons that use DeFi arrangements to provide financial services.

***Question 3*: Do you agree with the Report's assessment of governance mechanisms and how they operate in DeFi? If not, please provide details.**

We agree that a variety of innovative governance mechanisms have emerged in the DeFi markets, including those that the DeFi Recommendations refer to as "social governance mechanisms" (*e.g.*, DAOs) and "algorithmic governance mechanisms" (*e.g.*, smart contracts).[53] We also agree that these governance mechanisms may present risks, including where they allow for pseudonymity or anonymity, and that such risks should be appropriately managed.[54] However, these innovations may also present opportunities when risks are appropriately managed, including with respect to financial inclusion and market efficiencies, which should also be recognized and encouraged by regulators.

***Question 4*: Do you agree with the risks and issues around DeFi protocols identified in this Report? If not, please provide details. Are there others that have not been described? If so, please provide details. How can market participants help address these risks and/or issues, including through the use of technology? How would you suggest IOSCO members address these risks and/or issues?**

Please see above. We share IOSCO's concerns regarding the events that, in part, informed the DeFi Recommendations, including the exploits, attacks and other illicit uses of DeFi arrangements referenced in the DeFi Recommendations. As is the case with respect to any new technology or product—in traditional or crypto-asset markets—market participants should perform appropriate diligence before using such new technology or product. Market participants should also work together with regulators to develop best practices for the use and regulation of emerging technologies and products.

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53 *Id.* at 75-83.

54 *Id.* at 84.

***Question 5**: Do you agree with the description of data gaps and challenges in the Report? If not, please provide details. Are there others that have not been described? If so, please provide details. How can market participants address these data gaps and challenges, including through the use of technology? How would you suggest IOSCO members address data gaps and challenges?*

We generally agree that having access to appropriate sources of data is important for both regulators and market participants to fulfill their obligations. We also agree that focusing only on publicly available blockchain data may not be sufficient and that further standardization, transparency and use of innovative data technologies could be helpful to regulators and market participants.[55]

***Question 6**: Do you agree with the application of IOSCO Standards to DeFi activities contained in this Report? Are there other examples of how IOSCO Standards can apply?*

Please see above. Consistent with the principle of "same activities, same risks, same regulatory outcomes," we agree that the IOSCO Standards should be applied based upon whether a firm provides financial services, and not based on the type of technology used by the entity or any particular label applied to the entity.

***Question 7**: Is there any additional guidance that you would find relevant to help IOSCO members comply with these Recommendations? If so, please provide details.*

Please see above.

***Question 8**: Given the importance of the application of IOSCO Standards to DeFi activities, are there technological innovations that allow regulators to support innovation in DeFi/blockchain technologies while at the same time addressing investor protection and market integrity risks? If so, please provide details.*

Please see above. Regulators should be technology neutral and should seek to support beneficial innovation in DeFi/blockchain technologies, while guarding against market integrity risks and promoting investor protection, just as they seek to encourage innovation and protect against these types of risks in traditional markets.

***Question 9**: Are there particular methods or mechanisms that regulators can use in evaluating DeFi products, services, arrangements, and activities, and other persons and entities involved with DeFi? If yes, please explain.*

Please see above. Regulators should consider using innovative data technologies (for example, those provided by blockchain analytics companies) in addition to existing tools to evaluate entities that use DeFi arrangements to provide financial services.

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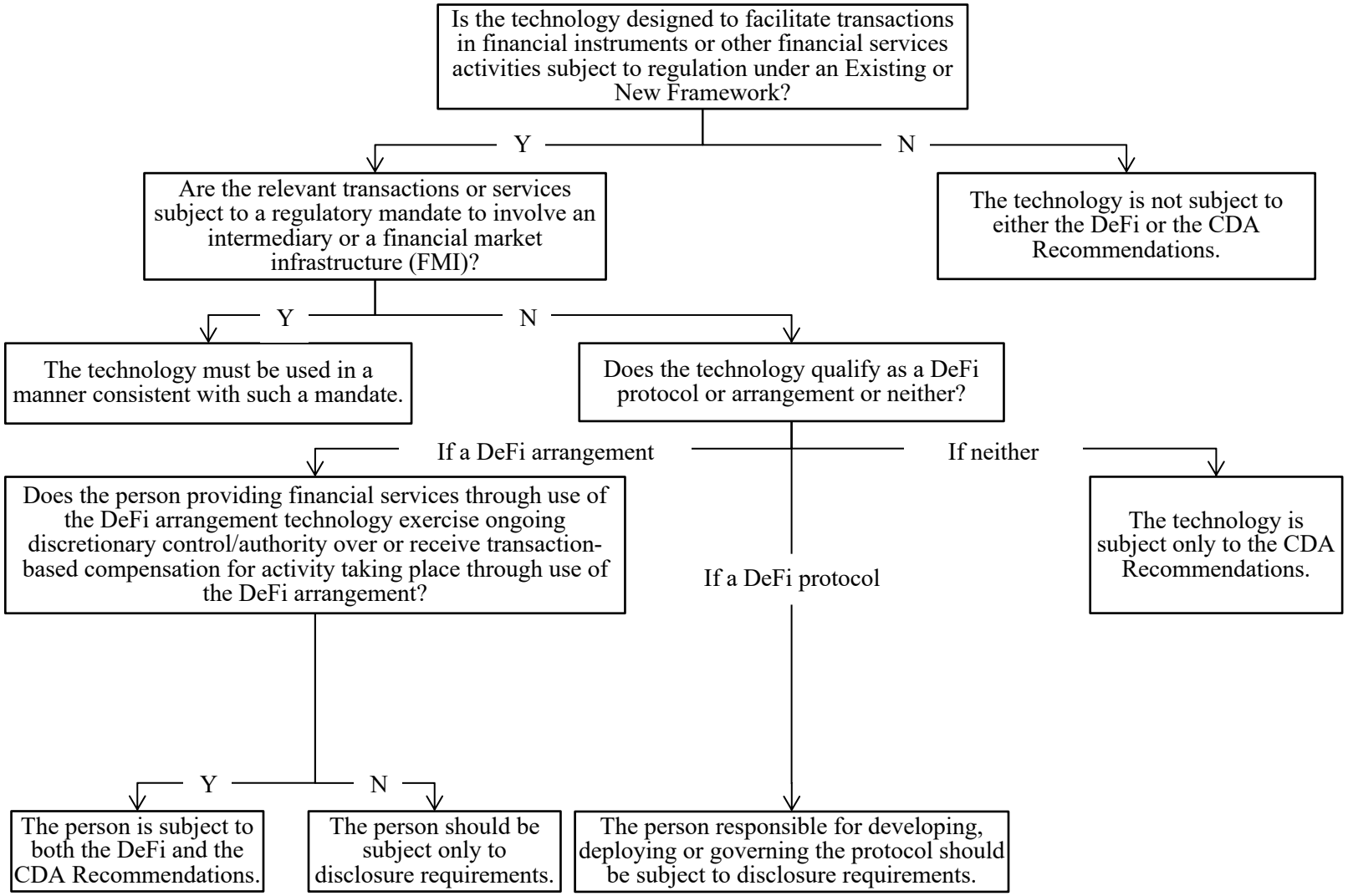
[55] *Id.* at 12-13.

<u>Question 10</u>: Do you find the interoperability between this report and the IOSCO CDA Report to be an effective overall framework? If not, please explain.

Please see above. We are concerned that market participants may find it challenging to navigate the reports, particularly given the possibility that an entity may be subject to the DeFi Recommendations, the recommendations in the CDA Consultation and the other IOSCO Standards to varying degrees across its activities. Further, given our extensive comments to each report, IOSCO and the market would benefit from a further consultation that allows market participants to provide integrated and comprehensive comments on IOSCO's full set of proposed recommendations for the crypto-asset and DeFi markets.

ANNEX D


Is the technology designed to facilitate transactions in financial instruments or other financial services activities subject to regulation under an Existing or New Framework?
Y
N
Are the relevant transactions or services subject to a regulatory mandate to involve an intermediary or a financial market infrastructure (FMI)?
The technology is not subject to either the DeFi or the CDA Recommendations.
Y
N
The technology must be used in a manner consistent with such a mandate.
Does the technology qualify as a DeFi protocol or arrangement or neither?
If a DeFi arrangement
If neither
Does the person providing financial services through use of the DeFi arrangement technology exercise ongoing discretionary control/authority over or receive transaction-based compensation for activity taking place through use of the DeFi arrangement?
The technology is subject only to the CDA Recommendations.
If a DeFi protocol
Y
N
The person is subject to both the DeFi and the CDA Recommendations.
The person should be subject only to disclosure requirements.
The person responsible for developing, deploying or governing the protocol should be subject to disclosure requirements.