

Amsterdam, 9 September 2022

Dear Sir, Madam,

With this letter, we are responding to IOSCOs Decentralised Finance (DeFi) [paper](#) published in March 2022. In the paper, IOSCO lays out a general overview of the DeFi space, and some of the challenges and risks regulators see. FIA EPTA and its members are becoming part of the DeFi space and are pleased to see the growing interest from policymakers and regulators.

The FIA European Principal Traders Association (FIA EPTA) represents 24 independent European Principal Trading Firms (PTFs) which deal on own account, using their own capital for their own risk, to provide liquidity and immediate risk-transfer in exchange-traded and centrally-cleared markets for a wide range of financial instruments, including equities, bonds, options, futures, ETFs and crypto-assets. Our members are important sources of liquidity and stability for end-investors and markets across Europe. FIA EPTA members are becoming a part of the digital/crypto-assets space, using their existing knowledge to improve the liquidity in these products.

One of the key challenges that the IOSCO paper tried to tackle is defining what DeFi is, this is also an issue faced by market participants as there is no general view on DeFi yet. FIA EPTA members believe that the market will benefit from further clarity by regulatory bodies with a global perception. Working jointly with market participants to reduce the current void in regulation and perspective between the market and regulators and policymakers.

FIA EPTA members are at the forefront of using blockchain technology to transform more traditional parts of the financial market industry. Our members are, for example, closely involved with the development of the Pyth network<sup>1</sup> which aims at consolidating financial market data to DeFi applications and making it available to the general public. In addition, FIA EPTA members are closely following the FTX proposal in the US for direct clearing.

FIA EPTA members, therefore, welcome IOSCOs DeFi paper and see it as an opportunity to engage with institutions like IOSCO to further help integrate this innovative and quickly growing industry into the financial system. In our response, we focus on three topics coming from the IOSCO DeFi report we believe are important for IOSCO to review:

- 1. Front-running**
- 2. Governance**
- 3. Oracles.**

FIA EPTA is committed to supporting policymakers and regulators in the DeFi space to develop a dynamic, innovative and resilient part of the financial market industry. We would welcome the opportunity to provide further background to IOSCO on the issues raised in our response.

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<sup>1</sup> Pyth Data Association, *Pyth Network: A first-Party Financial Oracle*, 4 January 2022  
[file:///C:/Users/rvijgen/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/DGBNXIZ7/Pyth\\_WhitePaper\\_Market%20data.pdf](file:///C:/Users/rvijgen/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/DGBNXIZ7/Pyth_WhitePaper_Market%20data.pdf) (Website: Pyth Network, <https://pyth.network/>).

## 1. Front-Running

Front-running under the European and UK Market Abuse Regulation is understood as “a transaction for a [person's](#) own benefit, on the basis of and ahead of an order (including an order relating to a bid) which he is to carry out with or for another (in respect of which information concerning the order is [inside information](#)), which takes advantage of the anticipated impact of the order on the market or auction clearing price”<sup>2</sup>. Across the EU and the UK, it is understood that the person in receipt of the information should be charged with executing the order of another and using this information in order to take advantage for their own benefit.

FIA EPT members believe that the Miner Extractable Value (MEV) is now wider than the definition provided in IOSCO’s paper and includes the “maximal extractable value” of a given block by any means. Thanks to the democratisation of the *mempool*, opportunities now accrue to all market participants capable of parsing the information it contains. Therefore, one can detect, for example, arbitrage opportunities across different coins or de-centralised exchanges and position oneself in a block accordingly - but not necessarily ahead of others. As *mempool* information is publicly available to query, the information regarding pending transactions can no longer be considered properly “inside information” once it forms part of the pending transaction queue.

Front-running as defined above can occur for example, if a broker enters two transactions - one on behalf of a client, and one on their own behalf - ordered in such a way as to profit from the price impact of the former on the latter. This is highly undesirable and presents an unacceptable disadvantage for end investors. FIA EPTA members who act as liquidity providers rather than executing orders for clients, we believe this is far from the only situation in which MEV can be used.

Furthermore, the presence of professional firms performing DEX arbitrage leads to market values being restored in line with each other and promotes correct price formation, delivering the best price for the end investor. Incidentally, such trading strategies require the trading firm’s transaction to occur after the end-user transaction, not ahead of it. However, other strategies that require transactions to be placed ahead of the end-user are not necessarily at their detriment. An example is Just In Time Liquidity, where publicly available *mempool* information is analysed in order to separate genuine end-user transactions from pure arbitrageurs to place a transaction that would provide extra liquidity to a DEX pool ahead of an end-user transaction. This way, the market maker is potentially able to choose to bring liquidity and capture normal trading fees only from the end-user, who benefits from suddenly increased liquidity. This means that end-user trade at a much lower price impact, leading to a better fill.

The combination of these observations leads us to query whether the application of the term “front-running” to all forms of MEV and linking such behaviour to fraud may be overly simplistic. It also ignores the particular level of transparency inherent to blockchain technology.

## 2. Governance

Another potential risk identified in the paper IOSCO is governance risk. In particular, IOSCO identifies two areas where these risks arise; the control of administrative keys and the functioning of protocol governance structures. To address these risks, solutions should be based on two core principles: simplicity and transparency. Governance issues often arise when structures become overly complex as they become untransparent while solutions put in place are often not fit for the tasks. Creating a set of rules and designing the protocols to make it very clear what governance issues are needed. FIA EPTA members believe it is also important to ensure that the amount of governance decisions that need to be taken is limited to ensure the success of the protocols.

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<sup>2</sup> See MAR 7(1)(d) and MAR 1.3 in the FCA Handbook.

The Pyth Network is one example of how to address governance issues as it reduces the necessity for governance input. Currently, the protocol is governed by the Pyth Data Association but will over time shift to an on-chain governance system. The on-chain governance mechanism will approve or reject proposals using a coin-voting system. Anyone with a minimum quantity of staked PYTH tokens will be able to make a governance proposal. On-chain governance is expected to be responsible for several specific actions, such as approving the types of tokens that may be used for data fees, determining which products are listed on Pyth and their reference data (e.g., number of decimal places in the price, reference exchanges), approving software updates to the on-chain program and a number of other functions.

FIA EPTA members would like to point out that the governance structure of the Pyth Network is designed to be complementary to other features of the protocol and therefore support the overall aim of the protocol. The governance structure is aimed at strengthening principles such as those who provide the highest quality data should get the highest rewards and limiting the influence of bad actors.

FIA EPTA members are generally supportive of the approach taken by the Pyth Network and see addressing governance issues to strengthening the overall protocol, as a key part of any DeFi solution. It is important that these systems are flexible and can be adjusted to changing circumstances. Transparency and a structure that promotes the right incentives are therefore essential.

### **3. Oracles**

In the Defi paper, IOSCO points out that oracles are a crucial aspect of the operation of a protocol and are also a key aspect of risk. FIA EPTA members believe that initiatives, like the Pyth network, as also highlighted above, can play an important role. The Pyth network tries to address several issues that are key to the functioning of the protocol by incentivising the right kind of behaviour and preempting loopholes. The reward system should preferentially reward these publishers so that the best publishers are incentivised to contribute to the protocol.

Oracle mechanisms generally reward publishers for agreeing, i.e., reporting the same price. However, rewarding agreements create a perverse incentive for publishers to misreport their private price information. Problems occur because existing oracle mechanisms are designed for the case where every publisher has access to the same information. Agreement suffices to validate that the publishers have reported it correctly, as there is no reason to expect honest publishers to disagree.

In the case of the Pyth Network and the way it functions, publishers have private information and are not expected to report the exact same price. The mechanism measures new information by calculating how well a price series predicts future changes in the aggregate price. This mechanism makes it difficult for investors to exploit the market under the assumption that they cannot easily predict future prices from historical prices. There are circumstances in which the prices on exchanges differ, and the oracle should reflect those circumstances. In these cases, systems like the Pyth network should therefore reward publishers for sharing new information, i.e., changes to the current price.

Oracles generally have difficulty separating good and bad investors. Prices often remain stable for a period, so the aggregate price from the previous slot is a reasonable estimate of the current price. Therefore, if the protocol rewards agreement, investors can trivially earn rewards by replaying aggregate prices with delay. The protocol should thus not simply penalise disagreement because honest publishers will occasionally diverge from the actual price.

### **Conclusion**

FIA EPTA members see a lot of dynamism and potential in the DeFi space. The potential of DeFi to overhaul parts of the financial markets is exciting, but as identified by IOSCO, there are significant risks that first need to be resolved. Our Members are continuously addressing these risks and engaging with other stakeholders to create simple and transparent solutions. However, we realise this is an ongoing conversation, and we, therefore, look forward to working with IOSCO in the future to address these issues.

- FIA EPTA members believe that the market will benefit from further clarity by regulatory bodies like IOSCO to define a global perception of the definition of DeFi.
- FIA EPTA members believe that the application of the term “front-running” to all forms of MEV and linking such behaviour to fraud may be overly simplistic. It also ignores the particular level of transparency inherent to blockchain technology.
- IOSCO identified two types of Governance risks in the paper; the control of administrative keys and the functioning of protocol governance structures. FIA EPTA members believe that to address these risks, solutions should be based on two core principles: simplicity and transparency. Further, we believe it is also important to ensure that the amount of governance decisions that need to be taken is limited to ensure the success of the protocols. Initiatives, like the Pyth Network Governance structure, could have solutions for these concerns.
- In the paper, IOSCO points out that oracles are a crucial aspect of the operation of a protocol and are also a key aspect of risk. However, Oracles generally have difficulty separating good and bad investors. The protocol should thus not simply penalise disagreement because honest publishers will occasionally diverge from the actual price.

We would welcome the opportunity to provide further background to IOSCO on the issues raised in our response.