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## Electronic Submission

February 15, 2019

Mr. Christopher Kirkpatrick  
Secretary of the Commission  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, NW  
Washington, DC 20581

RE: Request For Input on Crypto-Asset Mechanics and Markets

Dear Mr. Kirkpatrick,

The Futures Industry Association<sup>1</sup> (“**FIA**”) is pleased to respond to the Commodity Futures Trading Commission’s (“**Commission**” or “**CFTC**”) Request For Input (“**RFI**”) on Crypto-Asset Mechanics and Markets.<sup>2</sup> We appreciate the CFTC’s efforts to keep abreast of the crypto-asset landscape through the creation of LabCFTC and requests for public input on these non-traditional markets.

Given the unique position of FIA members in providing a critical part of the clearing infrastructure necessary for derivatives products, FIA was vocal in our December 2017 Open Letter Regarding the Listing of Cryptocurrency Derivatives (“**Open Letter**”) on the need for input from a broad cross-section of market constituents when new cryptocurrency derivatives products are listed for clearing.<sup>3</sup> We are firm supporters of innovation and competition in markets. We also support a thorough discussion and assessment of risk between all industry

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<sup>1</sup> FIA is the leading global trade organization for the futures, options and centrally cleared derivatives markets, with offices in Brussels, London, Singapore and Washington, D.C. FIA’s membership includes clearing firms, exchanges, clearinghouses, trading firms and commodities specialists from more than 48 countries as well as technology vendors, lawyers and other professionals serving the industry.

<sup>2</sup> 83 Fed. Reg. 64,563 (Dec. 17, 2018).

<sup>3</sup> See Letter from Walt Lukken, President and CEO, FIA, to J. Christopher Giancarlo, Chairman, CFTC (Dec. 6, 2017), available at <https://fia.org/articles/open-letter-cftc-chairman-giancarlo-regarding-listing-cryptocurrency-derivatives>.

stakeholders when launching products on new types of underlyers in order to ensure the long-term success and viability of these products as well as the protection and integrity of the market. In particular, with respect to crypto-asset derivatives, we thank the CFTC's Division of Market Oversight and Division of Clearing and Risk for the joint staff advisory issued on May 21, 2018 ("**Advisory**") that gives exchanges and clearinghouses registered with the CFTC guidance on certain enhancements when listing a derivative contract based on a virtual currency pursuant to Commission regulations. We especially appreciate, as stated in the RFI, that the input being sought will better inform the Commission and its operating divisions as the market evolves and exchanges potentially seek to list new virtual currency-based futures and derivatives products.

The health of the clearing ecosystem is of paramount importance to our members. FIA's membership includes Futures Commission Merchants ("**FCMs**") that provide risk management services in connection with providing client access to listed products. Accordingly, we have focused our comments on the issues relevant to clearing products in this space.

If an exchange or clearinghouse decides to proceed with the listing and clearing of a derivative contract based upon Ether, it will be important at that time for market participants to have the opportunity, consistent with the Advisory, to provide further input specific to the contract design and the available resources for risk management. Recognizing that the RFI may be a precursor to that step, we provide the following comments and welcome the opportunity to speak further with the Commission on any of these topics.

### **I. FCM's Role in the Clearing of Derivatives on Crypto-Assets**

As you know, an FCM acts as agent and guarantor for its customers in the execution and clearing of derivatives.<sup>4</sup> The obligation of the FCM to guarantee customers' trades assures the financial integrity of the markets and protects market participants from potential loss. Once a contract has been accepted for clearing by the relevant Derivatives Clearing Organization ("**DCO**"), the customer's clearing FCM assumes responsibility to the DCO as guarantor for its customer's open positions.<sup>5</sup> In

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<sup>4</sup> An FCM is broadly defined as an entity that (i) is engaged in soliciting or accepting orders for transactions in cleared derivatives, and (ii) in connection therewith, accepts any money, securities, or property (or extends credit in lieu thereof) to margin, guarantee, or secure any trades or contracts that result or may result therefrom.

<sup>5</sup> For example, CME Rule 8G05 provides, in relevant part, that, with respect to interest rate swaps ("**IRS**"):

this regard, a clearing FCM is liable to the relevant DCO for the payment of initial margin owing when a trade is initiated and, further, is responsible for the payment of any daily variation margin that may be required. The clearing member also has a duty to risk manage for credit, liquidity, operational and legal risks. In order to perform these key risk-management functions and to properly assess their own exposure as guarantor, FCMs need reliable tools for assessing risk.

DCOs further mutualize risk by establishing certain default protections. FCMs that are clearing members of a DCO are required to contribute to guarantee funds and agree to pay assessments, if required, in the event that a loss exceeds the contributed funds. With all clearing members contributing to these backstop funds, all FCMs are incentivized to risk manage appropriately and are dependent on other clearing members to do the same.

With regard to crypto-asset derivatives, it is imperative that there be adequate available price histories and other measures of the underlying to allow for comprehensive risk management of listed futures products. FCMs may face exposure to crypto-asset products through their guarantee fund contributions and assessments, regardless of whether they choose to allow customer trading or clearing in those products. For these reasons, we believe it is critical to ensure that a proposed contract listing that references a crypto-asset as an underlying has accounted for the unique risk management aspects particular to that crypto-asset.

## **II. The Listing of Bitcoin Futures**

We commend the CFTC for including in the RFI the listing of the Bitcoin derivatives contracts as a reference point for several questions relevant to the maturity of Ether and the Ethereum network. When exchanges first announced the listing of

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The IRS Clearing Member shall be deemed the principal to the IRS Contract when cleared by such IRS Clearing Member for its own proprietary account and shall be deemed a guarantor and agent of the IRS Contract when cleared by such IRS Clearing Member for the account of an affiliate or customer of such IRS Clearing Member.<sup>5</sup>

Regulation 3(b) of LCH. Clearnet Ltd.'s FCM Regulations provides:

Notwithstanding any other provision of these FCM Regulations, with respect to FCM Transactions involving an FCM Client or an Affiliate cleared by an FCM Clearing Member as FCM Contracts, such FCM Clearing Member shall act solely as agent of its FCM Clients and Affiliates in connection with the clearing of such FCM Contracts; provided, that each FCM Clearing Member shall remain fully liable for all obligations to the Clearing House arising in connection with such FCM Contracts.

Bitcoin futures for trading and clearing, FIA immediately indicated a need for transparency into the underlying product with respect to market structure and regulation. Without those foundational elements of a stable market for the underlying, volatility concerns made risk management of such nascent crypto-assets difficult.

A thorough understanding of the new product was critical for FCMs because the derivatives clearing ecosystem assigned absorption of the risk of these volatile, emerging instruments to all FCMs in the event of a default, treating them just like any other futures product for default fund purposes. An understanding of Bitcoin and factors influencing its governance, valuation, storage, access, vulnerabilities and global uses was necessary to risk manage the product as a derivative underlying. It was also necessary to understand the underlying architecture, mining process and validation and the process for protocol change within the supporting network. Bitcoin is not unique in this regard; these elements must be understood for any crypto-asset that is to serve as the underlying for a listed contract, and its proper default fund treatment must be analyzed.

Going forward, when exchanges propose to list additional futures contracts based upon other crypto-assets, we will draw on what we learned from the Bitcoin listing experience and look forward to working with the Commission, exchanges and clearinghouses to provide feedback as specific contract specifications come into focus.

### **III. Important Risk Management Considerations for Clearing of Any Cryptocurrency**

As noted in FIA's Open Letter, before launching a derivative on a crypto-asset, market participants should weigh in to discuss correct margin levels, trading limits, stress testing, and guarantee fund protections, and other procedures needed in the event of extreme price movements. In order to discuss such items, one must first understand the underlying, with each crypto-asset having its own characteristics impacting such decisions as well as each individual futures contract specification further impacting those issues.

For listed derivatives there are certain elements of risk management common to all products submitted for clearing, including: reliable sources of data and information for valuation and market characteristics; governance, structure and legality of the underlying products; and custody, safety and the delivery network for the underlying. Market participants want access to these tools in advance of the launch of any new product in order to conduct back-testing and assess the adequacy of margin requirements, among other things.

**a. Data**

Reliable sources of data are an essential foundation for clearing products. For FCMs to decide to offer clearing of derivatives on Ether, they must first be able to determine Ether's market size, liquidity, trade volume, types of traders, ownership concentrations, and market participant information. We understand that Ether data is available publicly on various sites and cryptocurrency exchanges that release trading statistics. Once contract specifications are available, market participants will be in a position to determine if the widely available public data is sufficient or if data providers will be engaged to create new sources of information and transparency.

**b. Historical Information in Relation to Contract Design**

Although we present areas common to risk management of all products here, we note that the particular contract specifications will be necessary to determine whether a novel product is mature enough to support proper risk management as a futures contract underlyer. As an example, until the CME and Cboe Futures Exchange contract specifications were announced, market participants were not aware what cash market price reference points would be used for the respective futures contracts. Each of the two contracts took different approaches to underlyer market price references. One used a single price reference; the other used a combination of multiple price references, each of which had to be explored and tested for reliability and then used for historical pricing and margin testing. Market participants would need to know and understand contract specifications of any proposed futures contract on other crypto-assets, such as Ether, in order to fully assess appropriate margin levels and guarantee fund risk.

**c. Network Architecture and Governance**

As we understand the various crypto-assets available in the marketplace, each is created and supported by its own unique architecture and governance that has important implications for the asset's behavior, predictability and stability in the market. Unlike fiat currencies, there may not be a central governing authority, and, indeed, the architecture is often designed to distribute verification and recording of asset movements in a way that is completely different from traditional currencies. Furthermore, the anonymity and encryption built in to the architecture can make access to asset ownership information intentionally obscured. Finally, in the case of many crypto-assets, the governance of the architecture itself is intended to be mutualized. Each of these characteristics can have implications for risk management of a derivatives

contract from the perspective of an FCM. For FCMs exposed to risk in the business of supporting customer trading in the products, it is imperative that they have access to the information needed to gain a thorough understanding of the architecture and governance of each crypto-asset within the context of the specific contract proposal, before any futures product launches.

We believe there are several potential unique challenges with the risk management of Ether as an underlying that need to be considered. Although there are a number of similarities between Bitcoin and Ether as blockchain-based assets, there are several important differences that are worth noting as they have the potential to impact the issues of particular importance to FCMs, as risk managers.

With the Ethereum Network's architecture, risk management is potentially more complicated than for Bitcoin by orders of magnitude. Whereas Bitcoin is a payment unit on a shared and distributed ledger for transactions, Ether is a unit of work on a distributed functionality tool that offers super-computing power on the Ethereum Network, in exchange for value. This network design supports further development and deployment of smart contracts and applications using the computing power purchased on the Network. Furthermore, those contracts and applications themselves can create functional tools and value. These applications can also interact with Ether or can create new tokens which could themselves store value or be redeemable for Ether according to terms of the smart contract or distributed application.

Due to this multi-layered design, the Ethereum Network and its potential to impact the Ether coin are more technically complicated and are also, therefore, potentially more complicated to risk manage within the structure of a futures contract built upon the Ether underlying. Accordingly, we think any proposed listing of a derivatives contract on Ether should be thoroughly vetted with all market participants to ensure the various necessary risk management tools are available.

Although specific information needs may vary based upon the specific form of a novel contract listing, such as one based upon Ether, we can provide the following high-level thoughts from our general understanding of Ether and the Ethereum Network:

- Because the Ethereum Network provides for infinitely complex software programs to be created and executed, it is difficult to identify the range of potential disruptions to supplies of Ether or tokens which might in turn impact the supply or trading activity in Ether.

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- Governance of the Network also requires detailed analysis to ensure reliability and stability for predictable risk management. With user-based communal decision-making affecting outcomes in the architecture, the value of the Ether itself could be dependent on the decisions of the community. As an example, the only recourse to reverse unintended Ether transactions is a fork of the blockchain via the built-in consensus mechanism. This fork or transaction reversal outcome as recourse for an unintended transaction should be factored into risk management decisions.
- Regulatory determinations remain unsettled in this space and can be unpredictable, further complicating risk analysis. Ether and crypto-currencies generally remain in a gray space in the regulatory sphere. Regulatory outcomes are further complicated because the products are constantly evolving and crossing geo-political boundaries in their uses and applications.<sup>6</sup>

Many of the above items may be addressed in any specific contract listing.<sup>7</sup> For purposes of this RFI response, we suggest these general considerations for the Commission in its regulatory oversight role of Ether contract listings as they begin to take shape.

#### **IV. Conclusion**

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<sup>6</sup> This global uncertainty is in addition to a lack of regulatory certainty within the United States about which regulator oversees specific products, depending often upon what specific form the reference to a crypto-asset takes.

<sup>7</sup>The "DAO incident" highlights the kinds of issues that can arise within the Ethereum Network that risk managers would want to make sure are considered and accounted for in the design of any futures contract. According to the July 2017 Securities and Exchange Commission's "Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO," an exploitation of a smart contract on Ether forced users to decide to reverse transactions and create a fork in the crypto-asset. The very public incident led to significant volatility in Ether. We urge the Commission to discuss with any exchange seeking to list a futures contract on Ether how the proposed contract would address issues such as those that arose during the DAO incident, including embedded contract vulnerabilities, crowd-based decision-making to undo transactions, and exchange-planned protections against loss, theft and cyber-attack. Proactively addressing the issues brought to light by the DAO incident may help facilitate risk management of contracts based on crypto-assets.

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We appreciate the Commission's efforts, through this RFI, to stay informed about the crypto-asset landscape and non-traditional markets. The industry and agency only stand to gain by engagement on these important and evolving issues. FIA remains committed to helping the Commission and staff understand the important aspects of the listing of contracts with crypto-asset underlyers that will make them successful as cleared products. Accordingly, as the specifics of a listed contract based on Ether become available, we would be happy to work with the Commission and other market participants to provide the necessary feedback to ensure necessary risk management products come to market as efficiently as possible. FCMs seek to support the trading of products they can properly risk manage and look forward to learning more about potential contracts based upon Ether and other crypto-assets.

Should you have any questions concerning this letter, please do not hesitate to reach out to me at 202.466.5460 or [alurton@fia.org](mailto:alurton@fia.org).

Sincerely,

A handwritten signature in black ink that reads "Allison Lurton". The signature is written in a cursive, flowing style.

Allison Lurton

SVP and General Counsel

Cc: Chairman J. Christopher Giancarlo  
Commissioner Brian Quintenz  
Commissioner Rostin Behnam  
Commissioner Dan Berkovitz  
Dan Bucsa, Chief of Staff & Senior Policy Advisor to Commissioner Stump