

The Alliance Risk Group, LLC ("Alliance") is pleased to provide these comments on the proposed amendments to the FTX DCO clearing model. These comments reflect the "hands-on" experience of Alliance with technology innovations in organized markets with non-intermediated structures. Our bios are provided as an attachment to this letter. Our comments are provided along two major points:

- 1. FTX leverages technology innovations to propose the amended clearing model.
- 2. The FTX DCO model provides market value in three major ways by:
 - a. Materially reducing risk by 95-99% with shorter settlement cycles,
 - Materially reducing risk capital requirements of participants without increasing market risk, and
 - c. Enhancing market liquidity by allowing more market participants through the lower risk capital requirements and direct, non-intermediated participation.

1. FTX leverages technology innovations that are available today.

The global commodity markets are in a state of constant transition. The pace at which this transition is happening is accelerating, as significant improvements are coming with increased regularity.

Alliance's Mike Prokop started his commodities career in 1985 as a back-office clerk at an FCM in New York City. He makes the following observations regarding the technical transformation now occurring in the cleared commodity markets: "I clearly remember working near thousands of square feet of file rooms where boxes of dated order tickets and reel to reel tapes were stored. I remember transitioning from a Telex to a fax machine to a Lotus 123 spreadsheet for trade confirmations. I then became one of the first FCM brokerage desk executives to be stationed on the floor of the NYMEX so that we could take orders directly from clients on the floor. Then as time went on, the floors were closed and replaced by electronic screens. Electronic platforms then had chat boxes, integrated analytics, and OTC orders all on one screen at a trader's fingertips. Not until the non-intermediated clearing model came to be did the age-old risk factors in clearing begin to be addressed. Up until this time the same margin calls were being made by the intermediaries to collect maintenance margin after the wait was over for the latest settlement prices; and by the time those settlement prices came to our desks, the market had moved again already.

There has been a great deal of stress placed upon the intermediaries who chose to continue to participate in this clearing model. The amount of assets that must be kept in reserve is far greater now than it has been in the past. Interest rates have been historically low for

years making the benefits of overnight rates on customer funds all but disappear. The number of FCMs has decreased over the years from over 200 in 2010 to a fraction of that number now as the financial burdens and changing regulations have forced them from the market. This shrinking of a major portion of the backstop waterfall is all happening now while we are still waiting on settlements to be posted and for banks to open on Monday mornings. That is until FTX US Derivatives decided to harness the technology that allows for near-real time settlements and 24/7/365 margin satisfaction, and liquidation if necessary. The FTX product slate also lends itself well to facilitate this new clearing model. There is no more waiting for the PRAs to post indices for settlements that could only then make calls for funds the following business day.

The FTX clearing model is transforming the way people will trade and greatly-reduce systemic risk for the clearinghouse. I expect that the other non-intermediated clearing solutions in the market will look to the FTX model as the new normal that they will need to try to emulate to be competitive. One thing that I have learned in my 37 years in the commodity markets is that markets change. That change occurs because markets seek the greatest liquidity and value proposition available. What FTX is now doing is allowing the markets to transform given the speed and surety of the technologies that are available today. This is a change whose time has come."

2. The FTX DCO model provides market value in three major ways:

- a. Materially reducing risk by 95-99% with shorter settlement cycles,
- b. Materially reducing risk capital requirements of participants without increasing market risk,
- c. Enhancing market liquidity by allowing more market participants through the lower risk capital requirements and direct, non-intermediated participation.

2.a. Materially reducing risk by 95-99% with shorter settlement cycles.

Alliance's John Flory notes that "High price volatility, especially during market stress events, is a key driver of risk. Shortening the settlement cycles means market participant's losses can only mount so much before the next settlement cycle. Then, by shutting-off participants trading before their margin, collateral and even position assets are exhausted, the market integrity can be better maintained."

Mathematically, we note the importance of period length in the volatility formula.

Formula

If in the volatility formula, the time period is defined as being 30 seconds long, then a marketplace that does settlements twice a day (assume once per four hours), then the market would have 480 thirty second periods

$$\sigma_T = \sigma \sqrt{T}$$

 σ_T = volatility over a time horizon

 σ = standard deviation of returns

T = number of periods in a time horizon

in 4 hours (480 = 4-hours x 60 minutes/hour x 2 thirty second periods/minute). Thus, a market settling every four hours would have 22 times (where 21.9 = SQRT(480)) greater risk for the same price standard deviation. Putting it differently, the market settling every 30 seconds has 95% less risk exposure (= 1-1/22). Similarly, over a 3-day or 72-hour weekend, there would be 8640 periods that are thirty seconds in length. A market settling in 30 seconds would have 99% (=1-1/(SQRT(8640))) less risk than the one taking 3 days to adjust margin. Witness the recent LME event.

Therefore, by FTX shortening the settlement time, it significantly reduces market price risk.

- 2.b. Materially reducing risk capital requirements of participants without increasing market risk, The margin requirements are typically linked to market price volatility and the amount of loss that can be incurred between settlement cycles. Thus, a significant reduction in market risk can significantly reduce margin requirements.
- 2.c. Enhancing market liquidity by allowing more market participants through the lower risk capital requirements and direct, non-intermediated participation.

As we observed in the energy markets, reducing risk capital requirements, and not requiring intermediation can also increase market participants. For example, the organized wholesale power market PJM has over 1,000 market participants. Per the Membership rules as influenced by the CFTC and FERC guidance, all are Eligible Contract Participants with minimal capital / asset requirements.

Alliance's Matthew Hunter summarizes what we have discussed in these comments: The SEC in its staff report on the GameStop stock volatility event posed a potential solution to the restrictions imposed on trading by brokers during a period of high trading volumes and price volatility - shortening the time for settlements: "A number of clearing brokers experienced intraday margin calls from a clearinghouse. In reaction, some broker-dealers decided to restrict trading in a limited number of individual stocks in a way that some investors may not have anticipated. This episode highlights the integral role clearing plays in risk management for equity trading but raises questions about the possible effects of acute margin calls on more thinly capitalized broker-dealers and other means of reducing their risks. One method to mitigate the systemic risk posed by such entities to the clearinghouse and other participants

is to shorten the settlement cycle."¹ Markets adapt with technological innovation and progress. Once futures trading halted every day on futures exchanges. Once open outcry pit trading was the only means of trading futures. In the 70's no one imagined any other way of trading. Trading happened by men screaming at one another. The exchanges and the traders adapted with technology. Futures contract trading hours were extended and are near 24/7 today. Trading moved from the shouting of brokers in the pits to electronic trading and the humming of computers. Some brokers resisted the change. For the most part they are part of history. The idea that there is a necessity to have intermediaries in clearing is outdated. As outdated as limited hours of futures trading in the pits by people only. Technology evolves and the speed of transactions increases. The complexity of transactions increases. With proper margin structures both retail and institutional customers will be protected more efficiently with real-time continuous settlements with auto-liquidation. And, as the market adapts to the non-intermediary model, new technology solutions will appear to increase capital allocation efficiency.

In closing, by leveraging the evolution in technology, FTX materially shortens the settlement cycle and thereby removes much of the risk from the market. Based on our experience in markets applying DCO-style risk management practices, we see the amended FTX DCO model as robust and enhancing market liquidity and risk capital efficiency.

About Executive Managing Director, John Flory

John Flory has been in the energy markets since the 1970's. His experience as it relates to risk-management in commodity markets begins in 1996 when he was asked to implement the market design by the California Public Utilities Commission (CPUC) of an organized wholesale market through the creation of the California Independent System Operator and the California Power Exchange (CalPX). He then became a part of the CalPX staff.

After the California power market meltdown in 2000-2001, Mr. Flory and Mr. George Sladoje (previously CalPX CEO and COO at the Chicago Board of Trade) created the North American Energy Credit and Clearing Corporation (NECC) to prevent future power market meltdowns. This market grew until it was purchased by Nasdaq OMX in 2010. This entity was later operated jointly with, and then sold to, NGX.

Around this time Mr. Flory was active in the Committee of Chief Risk Officers (CCRO). He led their Power Market Netting task force and was principal author of the white paper "Power Market Netting Best Practices" which reflected world-wide experience with organized physical power market operations. Mr. Flory was part of panel session by the same name, "Power Market Netting Best Practices," that was jointly organized by the CFTC, FERC and CCRO.

¹ Staff Report on Equity and Options Market Structure Conditions in Early 2021, pages 43&44 https://www.sec.gov/files/staff-report-equity-options-market-struction-conditions-early-2021.pdf

About Executive Managing Director, John Flory (cont.)

After that Mr. Flory co-founded his current company, The Alliance Risk Group, LLC in 2012. In its early years it helped energy companies define capital-efficient processes to comply with Dodd-Frank regulations. Over the years Alliance has continued to help energy companies and organized power markets operate with capital-efficient risk management practices.

About Managing Director, Mike Prokop

Mike Prokop is a digital transformation, market risk, regulatory compliance, credit risk, and trade surveillance professional. He has more than 35 years of experience in the energy risk management industry and advises numerous energy companies and exchanges in the natural gas, crude oil, power, and LNG markets. Mike is also the recently retired US Lead for Deloitte Advisory's cross-industry Blockchain and Digital Asset efforts and now serves as a Managing Director of Digital Transformation and Sustainability at The Alliance Risk Group in Houston. In addition, Mike has extensive contact with energy regulators and was a member of the CFTC's Energy and Environmental Markets Advisory Committee since its original founding in 2008 until 2020. Mike has also been a Senior Vice President with Merrill Lynch Commodities, a Managing Partner of the inter-dealer broker Amerex, and a Senior Managing Director at the CME Group where he led the Global Energy asset class.

About Senior Associate, Matthew Hunter

Matthew has over 45 years of experience in commodities as a private sector trader/manager and as a senior person within two federal regulatory agencies. Recently, he retired from government service. In his last position as Deputy Director of the Surveillance Branch at the Commodity Futures Trading Commission, he was charged with leading a team to detect illegal commodities trading conduct with an emphasis on uncovering market manipulation.

As the commodities-trading subject matter expert for the CFTC and for the Federal Energy Regulatory Commission for specific commodities and for general trading conduct, he mentored staff to assist in their discernment of market participant behaviors, as well as contributed to a wide range of enforcement actions and policy issues.

Prior to his government service, his history includes over 25 years in commodities trading at investment banks, precious metals trading firms, and power trading companies. He was directly engaged in all phases of profitable commodity trading in energy, precious metals, and foreign exchange, including hedging, arbitrage, forwards, options, derivatives, futures, global inventory management and speculative endeavors. He has built trading desks, managed portfolios, traded as a floor broker and advised large Fortune 500 firms and central banks on derivative use and hedging strategies.

About The Alliance Risk Group, LLC

Please visit our website at www.theallianceriskgroup.com