Decentralized Derivatives Association
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# Re: Commission Interpretation of Actual Delivery of Virtual Currency

Dear Mr. Kirkpatrick:

The Decentralized Derivatives Association (DDA) appreciates the opportunity to respond to the request made by the Commodity Futures Trading Commission for comments on its Proposed Interpretation on Virtual Currency "Actual Delivery" in Retail Transactions (the Proposal).

DDA is a smart contract creation service for derivatives on decentralized networks.  DDA is an active user and provider of services on top of virtual currencies.

The CFTC has asked for 'specific questions related to the Commission's treatment of virtual currency transactions'.  The following comments have a discussion portion followed by addressment of the specific questions asked by the Commission.

DDA applauds the CFTC for releasing this proposed interpretation, however DDA believes that this interpretation could lead to a de facto *de minimis* tenor exemption. In addition, it appears that the CFTC is ignoring the true purpose of their regulatory duties, which is customer safety and systemic risk, particularly here with regard to uncollateralized leverage used in retail commodity transactions. The CFTC must examine whether current regulations are appropriate to apply to virtual currencies and more specifically whether registration and reporting requirements adequately apply or are forcing companies to seek loopholes or exemptions.  In doing so, they will likely find that current requirements, in addition to being too onerous, fail to identify key distinctions between innovative derivative products built on top of distributed ledger platforms and those of current incumbents.

DDA recognizes the limited resources of the CFTC, however by failing to create a new regime for virtual currencies and distributed ledger technology, the Commission will be forced to decide between crippling innovation by placing these technologies into an inappropriate regulatory framework and jeopardizing customer safety and market integrity by legislating convoluted technicalities to accommodate innovation.

### Introduction

Cryptocurrencies and distributed ledger technology(DLT) derivative protocols are two different, yet interwoven technologies.  It is important for the Commission to understand the difference between a protocol built on top of a virtual currency and the virtual currency itself.

*Cryptocurrencies* – Cryptocurrencies are the base assets of decentralized networks.  As the LabCFTC has correctly identified in their educational information, cryptocurrencies can be regulated like most other intangible assets and even the idea that a cryptocurrency can be traded as a traditional asset is accurate.  CME[1], CBOE[2], and

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[1] http://www.cmegroup.com/trading/equity-index/us-index/bitcoin.html
[2] http://cfe.cboe.com/cfe-products/xbt-cboe-bitcoin-futures

Ledger X[3], among others, are proving this currently.  The issue arises however when one actually seeks to garner the benefits of an anonymous, decentralized store of value.  By forcing these assets and subsequent protocols onto a DCM or SEF, most of the benefits of the innovation are lost.

*DLT derivative protocols* – Programmable smart contracts have created a world where entire derivative functionality can be automated, secured and collateralized with no central counterparty.  Many companies are even giving this technology away or staying out of the U.S. because they fear repercussions from CFTC regulation (cryptoderivatives.market[4], dydx[5]).  In the near future, non-custodial exchanges, 'tokenized' derivatives, products with built in optionality and shorting mechanisms, along with fully anonymous contracts will be available.  The current CFTC regulatory framework defeats the goals of disintermediation and anonymity present in these innovations. As Bitcoin[6] proved to the world that there could be a currency backed by no government, there will soon be derivatives that are backed by no exchange, clearinghouse, FCM or any other registration category under the CFTC.  They currently exist and will continue to exist as pure computer programs on top of existing cryptocurrency networks.  Many of these protocols are seeking to use the 28-day exemption to operate in the U.S. market.  Our current regulations are stifling these innovations and have already pushed many overseas.[7]  Exchanges and derivative frameworks can now be built in a weekend by programmers on these blockchain networks.  The CFTC has a duty and responsibility in these networks to provide a reasonable path to compliance at the same time as enforcing risk-based and principles-based regulations.  The CFTC must show an understanding of the desire for anonymity and decentralization, and with such admission, the US can once again take part in these great financial innovations.

### Comments on the Proposal

Specifically relating to the actual delivery interpretation, the proposal seems to allow for leveraged or margined trading as long as the virtual currency is 'actually delivered' within 28 days. DDA believes that giving the green light to unprecedented levels of unregulated leverage is not the Commission's intent.  The danger of course is in the overall risk profile of exchanges which seek to avail themselves using this exemption. Since margin trading will be interpreted as being permitted, it is likely that many less reputable exchanges will seek to garner market share by providing unprecedented levels of margin trading given the volatility of cryptocurrencies. Should a large move occur in a cryptocurrency price, it is all but certain that large margin calls will lead many exchanges to face extraordinary levels of risk that would not be present in a regulated environment. The Commission must seriously consider the negative consequences and increased risk this interpretation will have on all market participants in these asset classes.

More specifically, the Commission should seek to develop a new regulatory framework for both cryptocurrencies and derivative protocols.  DLT will have a broad and lasting impact on global financial markets in payments, banking, securities settlement, title recording, cyber security and trade reporting and analysis.  When tied to virtual currencies, this technology aims to serve as a new store of value, facilitate secure payments, enable asset transfers, and power new applications.  The Commission should treat virtual currencies as a new asset class and acknowledge that current market participant classifications no longer apply due to

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[3] https://ledgerx.com/
[4] https://cryptoderivatives.market/
[5] https://dydx.exchange/
[6] https://bitcoin.org/en/
[7] https://www.forbes.com/sites/perianneboring/2016/06/28/the-blockchain-brain-drain-how-the-states-are-driving-blockchain-companies-abroad/#774dbeef83fc

technological innovations. The commission should attempt to create a regulatory environment where compliance costs are based upon risk levels. Easily understood and fully collateralized products should not be subject to unwarranted regulations while heavily leveraged virtual currency trading is now approved as long as parties have their private keys exposed once a month.

Please consider these comments and the answers to your specific questions in your overall determination on this interpretation and even further as you oversee healthy markets and work to mitigate financial risk.

**Question 1: Would a 2-day actual delivery period, such as the actual delivery exception in CEA section 2(c)(2)(C), more accurately apply to such transactions in virtual currency? Would another actual delivery period be more appropriate? What additional information should the Commission consider in determining an appropriate actual delivery exception period for retail commodity transactions in virtual currency? If the Commission were to decide that a shorter actual delivery exception period would be more appropriate in the context of virtual currency, should the Commission engage Congress to consider an adjustment to CEA section 2(c)(2)(D)'s the actual delivery exception? For example, should the Commission seek that Congress amend CEA section 2(c)(2)(D)'s actual delivery exception to be more aligned with the broader delivery period adjustment language in the Model State Commodity Code?**

To be succinct, a tighter actual delivery period would most certainly apply more aptly to virtual currencies. However, this correction would also stand for any intangible and most likely for every other commodity. Is the goal of the actual delivery interpretation to require parties to close out margin positions within a certain period of time or is the goal to require that delivery begins once the order is placed and that the order is not changed throughout the duration of the period at which upon delivery, payment is made? If it is the latter, dates or time frames are not necessary for interpretation.

**Question 2: With respect to the Commission's proposed interpretation, are there additional examples the Commission should consider in satisfaction of the "actual delivery" exception to CEA section 2(c)(2)(D)?**

The CFTC needs to realize that the assets traded on DLT networks do not fit nicely into categories such as currencies, commodities, or securities. For instance, there are companies creating cryptocurrencies backed by physical gold.[8] Other companies seek to create tokenized (a cryptocurrency with underlying) real estate, tokenized bonds, and other tokenized commodities.[9] As the Commission moves forward, the definition of a virtual currency versus a commodity-backed token traded on a virtual currency network will become paramount. Further clarification is needed on the following examples:

Example 1:

Party A buys Bitcoin from Party B. The Bitcoin takes 10 days to deliver (start date to end date). Upon delivery, party A agrees to pay party B the price of Bitcoin at the start date * change in the 10-year treasury rate over the duration. All goes according to plan; the Bitcoin is delivered, and the money is paid. Does this qualify as exempt under the actual delivery interpretation?

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[8] https://digix.global/
[9] https://blog.jpmorganinstitutional.com/2017/07/digital-assets-and-the-tokenization-of-commodities/

Example 2:

Commodity Pool 1 buys Bitcoin from Commodity Pool 2.  The Bitcoin takes 10 days to deliver (start date to end date).  The ownership of Commodity Pool 1 is sold during those 10 days.  The Commodity Pool 1 under new ownership takes delivery.  Does this qualify as an exempt transaction?

Example 3:

If Party A agrees to deliver a cryptocurrency to Party B within 28 days and the price of that cryptocurrency falls to zero during the time period, is delivery still required?

Additionally, though not necessarily examples, more clarity must be given on the following specific areas:

> a. The nature of netting with regard to actual delivery
> b. The definition of a 'transaction' with regard to 'retail commodity transaction'
>> i. The clarity of 'transaction' remains unclear in the 2013 interpretation of actual delivery. As in example 2, does the change in ownership represent a transaction?


**Question 3: The Commission is concerned about offerors of virtual currency retail commodity transactions that may be subject to conflicts of interest, including situations such as an offeror or its principals taking the opposite side of a customer transaction, either directly or through an affiliated liquidity provider or market maker. These arrangements may, in certain circumstances, resemble bucket shops. How should the Commission evaluate such circumstances if a platform seeks to avail itself of the actual delivery exception? Are there any additional factors that the Commission should consider in its determination of whether the "actual delivery" exception is available?**

The only way to prevent exchanges from taking one side of the trade is to enact regulatory reporting and/or record keeping requirements as a regulated entity.  In order to do this, the Commission needs to incentivize registration. The many cryptocurrency exchanges that are seeking this interpretation (among others) would ideally love to offer full margin trading to customers.  However, as it stands now, only one non-incumbent exchange is approved (Ledger-X) and none of the exchanges seeking this interpretation seem eager to apply for registration.  It is no secret that burdensome registration costs and timelines have scared all but a foolish few away from the doors of the CFTC. By forcing companies to go through a gargantuan regulatory approval process to list a product with zero counterparty contagion risk (e.g. fully collateralized options), the CFTC has not only hindered US innovation but has also pushed countless companies overseas. Risks can be calculated. Minimum net capital requirements can be flexible. Compliance mandates, membership fees, reporting and registration requirements in general should not be calculated using the no longer applicable registration classification, but the systemic and individual risks stemming from the innovation or product.

The Commission should attempt to create a regulatory environment where compliance costs are based upon risk levels.  If the product is risk free, inexpensive to implement and easily understood, they should not be subject to extensive regulation while 100X leveraged crypto-trading is now given the greenlight as long as parties have their private keys exposed once a month.

Monitoring is required to prevent bucket shops when margin is at play. Having a 'DCM-light' application or some more tenable regulatory application for these spot commodity exchanges would go a long way to ensure customer safety by requiring risk reporting and counterparty guarantees on behalf of the exchanges.

**Question 4: As noted above, CEA sections 4(a), 4(b), and 4b apply to retail commodity transactions "as if" the transaction was a futures contract. Therefore, absent an exception, a retail commodity transaction must be offered on or subject to the rules of a designated contract market ("DCM"). Separately, an entity soliciting or accepting orders for retail commodity transactions and accepting money, securities, or property (or extending credit in lieu thereof) to margin, guarantee, or secure such transactions must register with the Commission as a futures commission merchant ("FCM"). As a result of these requirements, the Commission recognizes that certain entities or platforms will choose not to offer virtual currency retail commodity transactions. This business decision is not unique to any particular commodity. However, as noted earlier, the Commission does not intend to stifle innovation. Rather, it is acting to protect U.S. retail customers regarding transactions that fall within its jurisdiction. Therefore, the Commission requests comments as to what factors may be relevant to consider regarding the Commission's potential use of its exceptive authority under CEA section 4(c) in this regard. For example, please note any advantages and disadvantages regarding the potential to establish a distinct registration and compliance regime for entities that seek to offer retail commodity transactions in virtual currency. Why would such treatment be uniquely warranted in the context of virtual currency? Please also note any other issues that the Commission should consider regarding such an analysis. What other alternatives should the Commission consider instead of establishing a distinct registration and compliance regime?**

As discussed in the introduction, there are two aspects relating to DLT that require different regulatory approaches. The first is virtual currencies and the second is smart contract executable derivatives.

Virtual currencies, like many intangibles already traded on the market, can be traded off the market, on an exchange, through an FCM, cleared at a CCP and so on. The Commission has accurately identified that these commodities can trade similarly to other intangibles and has done excellent work regulating them as such. Whether or not current registration and reporting requirements destroy the innovative properties of decentralization and anonymity is another more philosophical question for the Commission. The Commission has failed to distinguish the anonymous nature of these assets with regard to the regulated futures products (on CME and CBOE). The thinly traded and non-PFMI standard conforming cash markets on virtual currencies have proven poor candidates for the Commission's seal of approval with regard to the settlement process of regulated products. The CFTC should imminently issue guidance with regard to the cash markets that regulated futures markets rely on for settlement. This is not to say that virtual currencies are unable to underlie derivatives, however the material differences between these assets and more traditional products has created an unfounded perceived similarity in the eyes of market participants, therein undermining customer safety, market integrity and innovation. Real use cases are emerging for and within virtual currencies. Derivatives are vital to the development of this nascent industry. By harboring incumbent interests with rigid registration classifications, untenable compliance costs, and the acquiescence of their ill-considered products, the Commission risks significantly harming this technology and our markets.

The second aspect to be examined is that of decentralized exchanges and protocols that enable derivative like functionality with no middle-man. It is now possible to create a non-custodial exchange (e.g. 0x[10], Airswap[11], RadarRelay[12]) that enables parties to trade any DLT based asset with no middleman. The two parties can simply

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[10] https://0xproject.com/
[11] https://www.airswap.io/
[12] https://radarrelay.com/

find one another on a website and exchange assets in a trustless manner.  These DLT based assets (aka tokens) can be any program or representation.  It is now possible to create a fully collateralized derivative that can trade as a token. Here is an example:

> Imagine two parties each place 100 Bitcoin into a smart contract.[13] Where the one party is long and the other short.  This smart contract will pay out the change in the crude oil(CL) price over a duration of 1 week.  If the price of CL goes up by 10% over the week, the long party will receive 110 Bitcoin at the end of the week and the short party will receive 90 Bitcoin.  During the week however, each parties stake of 100 Bitcoin held in the contract is represented by 100 'Long tokens' and 100 'Short tokens' that can now be traded on decentralized exchanges.

This contract has no middle man, is fully collateralized, and is programmed only to do one thing: calculate the change in price and pay out the token holders accordingly.  Now the questions:  Should the decentralized (non-custodial) exchange be required to register as a DCM?  If these tokens are sold OTC on Craigslist, is Craigslist now a many-to-many platform for derivatives (many of these exchanges claim to be 'bulletin boards' or "Craigslist-like" in functionality)?

For an experienced Ethereum[14] developer, this derivatives contract and the exchange can be built in a weekend with no capital required.  The creation, operation and risk profile of this exchange differs greatly from that of the traditional DCM handling physically delivered crude oil and lean hogs.

To incentivize reporting and registration, the Commission must consider a regulatory regime that pays credence to the drastically diminished cost in the creation and operation of the exchange.  In addition, the Commission should also provide a 'full collateralization' exemption.  The goal of these regulations is to prevent fraud, provide customer safety and manage systemic risk.  The fraud portion is being handled aptly, the customer safety aspect has been addressed with the Commission's educational resources, however the systemic risk piece should acknowledge the difference between a programmed derivative contract with 100 percent of the collateral locked in the program and a highly leveraged traditional product.

**Question 8: As noted above, the status of "title" is one of the factors the Commission considers in an actual delivery determination for retail commodity transactions. In Examples 1 and 2, this interpretation notes that "title" may be reflected by linking an individual purchaser with proof of ownership of the particular wallet or wallets that contain the purchased virtual currency. What additional examples, if any, should the Commission consider to address the status of "title" for the purposes of an actual delivery determination?**

The Commission needs to be cognizant of the advent of side-chains, state-channels and child-chains in the cryptocurrency ecosystem.  Networks such as Raiden[15], the Lightning Network[16], Cosmos[17], or Plasma[18] will all

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[13] A smart contract on the Ethereum network is actually a computer program that maintains its own public and private key. The contract can custody funds, however can only perform functions which it is explicitly programmed to do. There is a creator of the contract, but there does not have to be an owner.  The contract is immutable (unless programmed otherwise) and cannot be removed from the network.

[14] https://www.ethereum.org/

[15] https://raiden.network/

[16] https://lightning.network/

[17] https://cosmos.network/

[18] https://plasma.io/

change the issues of scalability currently plaguing these systems.  One can imagine in the future a centralized entity will have a side chain that represents internal transactions between their customers.  For example, Coinbase[19]  could run a side-chain to allow any user to send cryptocurrency (e.g. Ether) to any other user of Coinbase at a drastically reduced cost that is not burdened by the transactions and consensus protocol of the main chain.  Several issues arise from this however.  Does Coinbase user A transferring to Coinbase user B on the side-chain represent actual delivery of the coin?  Several factors should be considered before deciding:

- What is the consensus mechanism?

Sidechains, like any blockchain based system can choose their own mechanism for validating transactions. Since the aim of side-chains is to be faster and cheaper, many chains are opting for Proof-of-Authority (POA)[20], Proof-of-Stake(POS)[21], or Delegated POS(DPOS) networks which are significantly different from the Proof-of-Work (POW)[22] mechanism used by the larger currencies like Bitcoin and Ethereum among others. If, in our example, Coinbase runs a POA chain where they are the only validator (miner) on the network. The network would be solely run by Coinbase and any transaction onto or off the side chain would be fully controlled by the miner of Coinbase.  The CFTC must make certain that any actual delivery does not occur on a chain solely (or majority in case of POS/DPOS) controlled by the exchange or related entities.

- Can parties freely transfer their assets back to the mainchain?

Transferring back to the main chain represents true ownership.  If the coins are locked on the side chain for a certain duration of time or the process of removing them from the side chain is onerous, this could represent a failure to actually deliver.

- What is the appropriate finality in the determination of actual delivery?

For cryptocurrencies such as Bitcoin, there is no true finality.  Finality is interpreted as the consensus of blocks that act as the majority chain for a certain number of blocks.  If a cryptocurrency is delivered and a fork happens which rolls back that delivery, did delivery still occur?  If the fork rolls it back and the main party is required to redeliver, is there an exception if it goes beyond the 28-day period?

The discussion of finality should be seriously considered in the context of delivery.  A traditional definition of delivery would indicate that the transfer is final and irrevocable.  When you have 'spot' markets that have no finality, the entire concept of delivery is bastardized by the lack of finality in these systems.


**Question 9: While this interpretation is solely focused on the actual delivery exception to CEA section 2(c)(2)(D), the Commission recognizes other exceptions may be available. Specifically, the Commission recognizes that the SEC recently issued a statement regarding the application of federal securities laws to certain initial coin offerings ("ICOs"). Depending on their use, the tokens or units issued in an ICO may be commodities, commodity options, derivatives, or otherwise fall within the Commission's virtual currency definition described in this interpretation. However, any such tokens that are deemed securities (and trade in a manner that qualifies as a retail commodity transaction) would be excepted from the retail commodity**

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[19] https://www.coinbase.com/
[20] https://en.wikipedia.org/wiki/Proof-of-authority
[21] https://en.wikipedia.org/wiki/Proof-of-stake
[22] https://en.wikipedia.org/wiki/Proof-of-work_system

**transaction definition pursuant to section 2(c)(2)(D)(ii)(II) of the Act. Are there concerns with the scope of this exception with regard to retail commodity transactions? What factors should the Commission consider if it were to issue further guidance regarding this exception?**

Although the SEC declared the infamous DAO to be a security, the idea of a decentralized autonomous organization (DAO) remains alive and well. A true DAO that is launched anonymously, owned anonymously, and runs entirely on-chain is sure to be a reality in the near future. For example, one can imagine a marketplace, run on the Ethereum blockchain, with distributed owners rewarded a percent of the sales. Assuming that it truly is decentralized and there is no chief marketer or company operating the development and maintenance of the system:

- Under which agency is this token to be regulated?
- If a company does not register at the SEC and does not get charged by the SEC as a security, does that make it a commodity?
- If there is no organization to do the registration process at the SEC, does it then fall into the bucket of products under CFTC jurisdiction?
- To wrap it into one question, does the CFTC claim jurisdiction on all products that are not deemed securities by the SEC?

Additionally, should a spot exchange want to maintain compliance (only trade commodity (non-derivative, non-security tokens)), is there a list or method maintained by the CFTC for identify these commodity tokens?

**Conclusion**

The CFTC should reimplement principle-based regulations that address the risk of a specific product. Rather than trying to shoehorn innovations and a new asset class into an existing framework, recognition of a new paradigm is necessary. Virtual currencies can be forced into existing derivatives infrastructure and compliance frameworks, however doing so removes the benefit of these truly innovative protocols. Thank you for addressing these important issues again and I look forward to any reply or further discussion.


Sincerely,

**Nicholas A. Fett**
CEO & Founder | DDA
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