

CFTC Commissioners:

As a public investor familiar with both the derivatives and bitcoin markets, I was pleased to see LedgerX's application to register as a Swap Execution Facility and a Derivatives Clearing Organization. The availability of bitcoin hedging instruments will expedite the maturation of the bitcoin marketplace.

Although I believe bitcoin hedging instruments are generally beneficial, I am deeply troubled by certain aspects of Jim Newsome's involvement with LedgerX. In addition, certain characteristics of the proposed DCO structure are problematic. What particularly troubles me about LedgerX's application, whether this was done by design or otherwise, is the number of times it mentions bitcoin. One would assume that because bitcoin is the intended and sole underlying asset on which LedgerX will offer derivatives contracts that its application would be riddled with repeated discussions of bitcoin. But as it so happens, as far as I'm able to determine, "bitcoin" makes a single – ONE – isolated appearance in all of LedgerX's filings with the commission. I trust the commission is as outraged as I am with such a blatant subterfuge.

1. Jim Newsome and regulatory capture: To start, the involvement of Jim Newsome with LedgerX as an equity holder, director and advisor creates the appearance of impropriety and regulatory capture. As a former CFTC commissioner, Mr. Newsome seems to hold sway with current CFTC commissioners and staff. In fact, Mr. Newsome's firm, Delta Strategy Group, has a staff with deep connections to the CFTC given that two thirds of the firm's staff have spent time working for the CFTC.

It makes sense that an applicant to become a DCO would retain attorneys to assist in the process. But there should be no reason to retain former commission members, and no advantage should be gained by their retention. So why give equity to Mr. Newsome and engage Delta Strategy Group? The only plausible reason is to curry favor with the commission as a means of having an application accepted.

I understand that Mr. Newsome has become deeply involved with the Chamber of Digital Commerce, a bitcoin trade association whose mission is to lobby US regulators, including the commission, on the virtues of bitcoin. How can the commission expect market participants to trust the CFTC when there exists such a glaring perception of regulatory capture?

2. Inadequate financial resources to be a DCO: As the commission is well aware, a DCO is a clearinghouse that "enables each party to an agreement, contract, or transaction to substitute, through novation or otherwise, the credit of the DCO for the credit of the parties; arranges or provides, on a multilateral basis, for the settlement or netting of obligations; or otherwise provides clearing services or arrangements that mutualize or transfer credit risk among

participants.” The key to a successful DCO therefore is its ability to substitute its credit for the credit of the parties. That is why the entities currently registered as DCOs are limited in number to those with adequate financial, operational, and managerial resources (e.g., CME, ICE and OCC). Within such a framework, how exactly will the commission ensure that a startup with limited resources and seeking to trade a volatile asset will guarantee the safety of customer funds? It plainly cannot.

3. Dangerous and inappropriate collateral: LedgerX intends to clear fully-collateralized, “physically-settled” options on bitcoin (I use the words physically-settled in quotes because there is nothing physical about bitcoin – it is a purely digital artifact). LedgerX intends to hold as collateral the underlying bitcoin deposited by market participants who sell options on their exchange.

Mr. Newsome claims that “It’s no different than with corn farmers... They’ve got all this corn, the grain markets have been volatile. They could enter into hedging contracts knowing exactly what it’s worth, and not worrying about volatility” (Wall Street Journal article by Yuliya Chernova, Oct 27, 2014). Unfortunately, nothing could be further from the truth.

Under normal circumstances, a DCO holding dollars as collateral has inherent safeguards: movements of dollars occur through entities governed by the Federal Reserve, state banking authorities, the FDIC and other regulators. No such regulated entities control the movement of bitcoin.

If, as a consequence of accident or fraud, US dollars are sent to an incorrect bank account, the transaction is generally reversible. That is not the case for bitcoin. Bitcoin transactions are inherently irreversible, so if bitcoins are sent to the wrong recipient, stolen or otherwise lost, there is no way to recover the lost assets. It is exceedingly dangerous therefore for a DCO to hold bitcoin as collateral, and should automatically disqualify LedgerX from acting as a centralized counterparty.

4. Inadequate oversight: The CFTC cannot prevent LedgerX from incurring losses of bitcoin held as collateral. CFTC Chairman Timothy Massad, speaking at a conference in Chicago in November 2014 overtly stated that cybersecurity checks have been impaired by the CFTC’s thinly stretched budget (Wall Street Journal article by Andrew Ackerman, Nov 5, 2014).

Beyond the CFTC’s budgetary constraints, bitcoin-related enterprises have a long history of incurring losses. As recent events have proven, even the most prominent exchanges have lost significant amounts of bitcoin – Mt. Gox and Bitstamp are two well-known examples. Bitstamp, unlike Mt. Gox, was capitalized with \$10 million in US venture capital, and is considered an honest actor that maintained sophisticated technology, experienced management and enjoyed a successful three-year track record. During the first week in January

Bitstamp revealed an attack on its exchange that led to the loss of 19,000 bitcoins worth over \$5 million. Bitstamp ceased trading and it took them one full week to resume trading. There can be no question that Bitcoin is unlike any other commodity, and the commission is currently ill equipped to deal with the unique aspects underpinning bitcoin – there is no way for the commission to know that LedgerX won't lose bitcoin.

5. Lack of a guaranty fund: There is no mention as to whether LedgerX's DCO will maintain a guaranty fund, and, if so, who will comprise the fund. Not requiring a guaranty fund because the underlying is fully collateralized is obviously dangerous and sets a perilous precedent. Can anyone who so desires create a DCO simply by proposing "full collateralization"? Does the CFTC propose to create new margin rules where any underlying asset can be used as collateral? In the case of LedgerX, the situation is particularly perilous because the "collateral" could simply disappear. The situation in question is in fact the exact form of risk that Dodd Frank seeks to prevent.

The lack of a guaranty fund is a core problem with LedgerX's application. As Mr. Newsome knows, the entire premise of a CCP is to enable the mutualization of risk via participation from member organizations. In reality, LedgerX isn't a CCP at all – there is no mutualization whatsoever. The CFTC could call LedgerX a DCO, but that is no different from calling a wolf a sheep. The effective redefinition of a DCO sets a very dangerous precedent. If a DCO need not actually be a CCP then why do we have DCOs at all? What does it mean to be a DCO? Seemingly, the answer would be "it means nothing".

6. Risk contagion from the failure of a CCP: Under normal circumstances, DCO guaranty funds consist of banks and other Basel III regulated entities, and are considered low-risk enterprises for the banks. To the extent any banks are included in LedgerX's guaranty fund, the mismatch between perception and reality of bitcoin would cause havoc to the risk-weighted asset exposure for the banks' balance sheets.

Moreover, the failure of a centralized counterparty would have disastrous consequences for market stability. It would be particularly bad for LedgerX, which allegedly will fully collateralize their options, to fail. And if a fully-collateralized CCP can fail, then why can't others, such as CME and ICE, who are not fully collateralized? The perception of safety for non-fully collateralized options would be terrible. Market participants must be assured that the commission has instituted adequate safeguards to protect them from unnecessary risks. A CCP failure would negatively impact how market participants perceive the commission, and result in a chilling effect for investors seeking to enter the derivatives markets.

Beyond the negative impact on the market, the failure of a CCP would likely create additional negative externalities. As we have learned from the financial

crisis in 2008, public funds can be used to provide support for failing institutions. Taxpayers shouldn't be on the hook for a failed DCO, particularly when its failure is easily predictable by the commission.

The proposition that a "fully collateralized" DCO could fail might seem alien to Mr. Newsome. The whole idea of "full collateralization" could be justified as a mechanism to avoid another 2008-like event. But, in this case, the "full collateralization" is a mirage.

One could argue that problems arising from LedgerX's collateral are highly unlikely (although I disagree). Nonetheless, as many financial markets participants have learned the hard way, "unlikely" does NOT equal "impossible". On the contrary, an unlikely event (loss or theft of bitcoin, etc.) can happen at any time – and, over a long enough timeframe, it will eventually happen. Didn't we just see that with the Swiss Franc? Several hedge funds and retail forex brokerages either went out of business or were severely hobbled by an "unlikely" event.

7. Unacceptable risk to the investing public: There is no way for LedgerX or the commission to verify that all participants on LedgerX's DCO are eligible contract participants. There is nothing to prevent a retail investor – a possible bad actor – from falsely claiming ECP status. There is simply no mechanism for such verification. Non-ECPs are intended to be excluded from the swap market for a reason: an ECP is considered to have financial resources and sophistication that go far beyond mom-and-pop investors. The participation of non-ECPs in the market could be disastrous for smaller investors who will be the first to get hurt if LedgerX's CCP were to fail. This presents an unacceptable risk to the general investing public.

8. Money laundering / circumvention of FinCEN and state regulations: By falsely claiming ECP status, retail investors could circumvent appropriately scrutinized KYC and AML frameworks to obtain bitcoin on LedgerX's DCO. Worse yet, there is no established framework to demonstrate legal title to bitcoin holdings. Having the ability to move bitcoin from one address to another certainly does not prove title. The existence of multi-sig makes the situation all the more confounding. The entire notion of legal title becomes murky. One could argue that multiple parties all simultaneously have a reasonable claim on bitcoin held at a particular multi-sig address.

LedgerX's acceptance of bitcoin as collateral provides an efficient mechanism of laundering bitcoin for surreptitious thieves or for individuals whose legal title status is murky. As the commission knows, the Federal Government has prosecuted cases involving illegal uses of bitcoin, such as drugs and money laundering. LedgerX is essentially taking advantage of the CFTC's regulatory framework to eliminate their responsibilities to FinCEN and other state money transmitter regimes.

9. Inadequate assurance that prices will not be manipulated: Bitcoin has a long history of price manipulation. Market participants must be able to price options based on the true price of the underlying asset, in this case bitcoin. In the current market, bitcoin cannot be priced with any certainty. There does not currently exist a regulated bitcoin exchange in the US where investors can exchange USD for bitcoin. There is therefore no established cash market for the underlying asset. Creating an options market before a legal cash market will result in distortions in the cash price when a fully and properly licensed bitcoin exchange comes online in the US. Furthermore, Commissioner Mark Wetjen stated in an op-ed in the Wall Street Journal that the CFTC may or may not have the authority under the CEA to bring enforcement actions against anyone attempting to manipulate the price of bitcoin (Wall Street Journal, November 3 2014). How can the CFTC approve a DCO in which the authority tasked with preventing price manipulation has yet to be determined?

10. Woefully inadequate public disclosure: It is particularly disappointing that Mr. Newsome would advise LedgerX to submit applications to the CFTC that are as inadequate as those filed by LedgerX. After reviewing over 200 pages of submissions to the CFTC, I was stunned to see the word “bitcoin” mentioned exactly one time (page 22 of the Certificate of Incorporation). Rather than disclosing the risks of using bitcoin as collateral, the application simply refers to “collateral” over and over again. The public cannot be expected to evaluate risk in the absence of appropriate disclosure. LedgerX’s application does not begin to approach the level of disclosure that would be appropriate.

The commission has a duty to ensure that an organization’s financial resources are sufficient and that its mechanics fit the confines of a regulatory framework built for the benefit and security of the investing public. Furthermore, the commission has an ethical and practical obligation to avoid even the slightest appearance of regulatory capture. Jim Newsome’s slyly crafted design for this new DCO is unacceptable.

With all of the above said, I do think LedgerX’s goal of enabling the hedging of bitcoin via options is laudable and it seems they have assembled an excellent team of intelligent professionals. To remediate LedgerX’s application, I would suggest the following:

1. Completely eliminate the use of bitcoin as collateral. Let the options be USD settled and enable the use of USD as margin
2. Pair up with a financial institution that can create an adequate guaranty fund (akin to the size of other DCOs: CME, ICE, etc.)
3. Wait for the bitcoin market to mature sufficiently such that price manipulation is of lower risk
4. Provide appropriate public disclosure in application forms
5. Do not allow Jim Newsome or other former CFTC commissioners or staff members to attempt to manipulate the approval process

I hope the commission understands the risks outlined in this letter and that LedgerX reforms its plan to be safe and acceptable.

Respectfully,
Michael Green