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January 29, 2015

Chris Kirkpatrick
Secretary
Commodity Futures Trading Commission
Three Lafayette Center
1155 21st Street, NW
Washington, DC 20581

Re: Related Applications Submitted by LedgerX, LLC for Registration as a Derivatives Clearing Organization and Swap Execution Facility, IF 14-006

Dear Mr. Kirkpatrick:

These comments are submitted in response to the request for public comment issued by the Commodity Futures Trading Commission ("CFTC" or "Commission") on two related applications (the "Applications") submitted by LedgerX, LLC ("LedgerX") for registration with the Commission as a derivatives clearing organization ("DCO") and a swap execution facility ("SEF") for transactions in bitcoin. As a pure creature of digital commerce, bitcoin and other virtual currencies raise novel challenges that differ from physical commodities and from well-established financial assets for which time-tested financial infrastructure currently exists. Ensuring an appropriate regulatory framework for the safe and effective trading and clearing of virtual currency derivatives is a critically important Commission objective.

The Applications are unique not only for the type of product that LedgerX proposes to list and clear, but also for the respects in which LedgerX proposes to depart from core elements of the Commission's frameworks for regulating DCOs and SEFs. As described in greater detail below, these elements include critical financial integrity and impartial/open access protections. In particular, the combination of this novel product's digital attributes with the proposed (and novel) departures from core DCO financial integrity protections increase the risks associated with the proposed departures from DCO core principles.

In addition, because key aspects of the Applications, including a request for "no-action relief from various regulations [applicable to DCOs],"[1] have been submitted by LedgerX on a confidential basis or have not otherwise been made public, it is not clear from the public file whether these protections are the only Commission requirements for which LedgerX is seeking special treatment. Additionally, a number of elements that are critical to understanding and commenting on the public interest and other considerations raised by the Applications have not been made public. While the Commission must certainly protect sensitive proprietary information of the applicant from unnecessary public disclosure, the Commission must at the

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[1] *See* Applications at SEF Exhibit D.

same time ensure that while doing so, the public file is sufficiently complete to facilitate meaningful and effective public comment. There is information missing from this record that is relevant to the application, is central to the Commission's assurances of financially stable institutions that, at the same, time cannot be deemed proprietary.

Approving LedgerX's registration in the face of these deficiencies would not promote the development of safe and sound virtual currency derivatives markets. It could also establish a harmful precedent for future DCO/SEF applicants and existing registrants. Accordingly, until these gaps concerning non-proprietary information in the public file and related deficiencies in the Applications are addressed, the Commission should not approve the DCO or SEF registrations contemplated by these Applications.

I. Inadequate Financial Resources Due to Risk of Lost Bitcoin

DCO Core Principle B requires a DCO to possess financial resources that, at a minimum, exceed the total amount that would enable the DCO to meet its financial obligations to its clearing members notwithstanding a default by the clearing member creating the largest financial exposure for the DCO in extreme but plausible market conditions and to cover its operating costs for a period one year, as calculated on a rolling basis.[2]

LedgerX proposes to meet this obligation entirely through margin posted by its self-clearing members, without any additional guaranty fund deposits or non-margin financial resources. Specifically, LedgerX proposes to employ a "fully collateralized" model under which LedgerX would require a member, either when entering an order for a short option contract or exercising a long option contract, to post the full amount of its delivery obligation in either bitcoin (for short call order or long put exercise) or U.S. dollars (for a short put order or long call exercise).[3]

Yet, even though half of LedgerX's margin would come in the form of bitcoin, LedgerX has not explained how it will guard against the very significant security and other operational risks that exist with respect to ownership or custody of bitcoin. Ledger X merely makes blanket and highly generalized assertions that it "continually monitors for actual or threatened risks" and that it maintains "a high-degree of security to prevent system outages and cyber-attacks."[4]

The omission of information concerning the manner in which LedgerX will secure its bitcoin collateral raises serious questions about how it can satisfy DCO Core Principle B when half its financial resources is susceptible to loss, for example, through cyber-abuse. Bitcoin is unlike other forms of collateral insofar as it is subject to irreversible theft or loss. It is

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2 Commodity Exchange Act ("CEA") Section 5b(c)(2)(B). *See, also* CFTC Regulations § 39.11.

3 *See* Applications at DCO Exhibit A-3.

4 Applications at DCO Exhibit A-1(I). The absence of additional details behind these assertions also raises questions about how LedgerX will satisfy DCO Core Principle I, which requires a DCO to identify and minimize sources of operational risk. *See* CEA Section 5b(c)(2)(I) and CFTC Regulations § 39.18.

unprecedented for the CFTC to authorize a DCO which is so reliant on a highly volatile, potentially-illiquid instrument at the core of its capital base.

Concerns have also been raised about the treatment of bitcoin collateral under the Uniform Commercial Code.[5] The Applications, however, do not provide an adequate basis to assess the steps LedgerX intends to take to ensure that it will obtain and maintain a perfected first priority security interest in bitcoin collateral.[6]

Additionally, although the published excerpts of the Applications purport to require the funding of accounts prior to trade execution,[7] the Applications at least contemplate the possibility that the requisite account funding may not occur despite the execution of the trade.[8] Limitations on exercise, however, would not fully protect counterparties to cleared trades who will have acted in reliance on the existence of its cleared position, with potentially significant adverse economic consequences to it if its counterparty is unable to perform and the DCO does not have the financial resources to perform on behalf of the defaulting counterparty. The Application does not appear address this risk, why it is acceptable from a DCO financial integrity perspective or how the related clearing certainty obligations of the SEF will be satisfied and prevent the occurrence of such events.

II. Limits on Participation Inconsistent with Impartial, Fair and Open Access

The CEA and Commission rules thereunder require SEFs to provide "impartial access" to market participants[9] and require DCOs to establish participation requirements that "permit fair and open access."[10] Several aspects of the Applications raise questions as to how LedgerX can be said to satisfy these requirements.

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5 *See, e.g.,* National Law Review, Secured Lender Protection Limited When Bitcoin is Collateral (June 19, 2014), *available at* http://www.natlawreview.com/article/secured-lender-protection-limited-when-bitcoin-collateral.

6 LedgerX's rules merely address the granting of a security interest, not its perfection. *See* Applications at DCO Exhibit A-2, Rule 7.2.B.

7 *See* Applications at DCO Exhibit A-1(G); DCO Exhibit A-2, Rule 7.1. (requiring participants to "deposit funds or the applicable amount of [bitcoin] required to fully collateralize Orders . . . including payment of premiums, payment in exchange for delivery or to fulfill delivery obligations, as applicable, prior to submission of such Orders to the Exchange").

8 *See* Applications at DCO Exhibit A-2, Rule 7.1. (providing that "a Participant shall not be permitted to exercise such option if the Participant has not already deposited sufficient collateral to fully collateralize the [bitcoin] or funds necessary to complete delivery or payment of the option," suggesting that somehow positions may be held in the absence of full collateralization as described above).

9 CEA Section 5h(f)(2)(B)(ii) and CFTC Regulations § 37.202.

10 CEA Section 5b(c)(2)(C)(iii)(III) and CFTC Regulations § 39.12(a).

As an initial matter, it appears that LedgerX intends to require that any market participant seeking to trade on its SEF must be a direct member of the SEF and clearing member of LedgerX's DCO. This proposed self-clearing requirement would impede open access to the DCO (and, indirectly, the SEF) and discriminate unfairly against market participants lacking the administrative and operational resources necessary to satisfy DCO membership and operational requirements. Such restrictions may be appropriate in the case of some markets, such as physical energy markets, whose participants are commercial, professional firms who can invariably satisfy such requirements. In the bitcoin markets, however, the self-clearing requirement may prove problematic for merchants and others in the real economy who want to use bitcoin derivatives for bona fide hedging purposes, but who may well be unable to satisfy DCO membership and operational requirements. Nonetheless, the published portions of the Application do not explain the basis for these limitations nor do they identify any public interest benefit that would be derived by waiving the related core principle requirements of the CEA and Commission regulations.

Just as LedgerX's "direct clearing member only" model is likely to impede impartial, fair and open access by hedgers and other market participants, its "full collateralization" model is likely to impede such access by market makers. Only the biggest institutions are likely to have the resources necessary to post the full delivery obligation (for a short call) or full strike price (for a short put) for every quote they put in LedgerX's order book and every outstanding option contract they have executed.[11] Even if smaller market makers are able to obtain outside financing for the margin they would be required to post to LedgerX, they would likely need to obtain that financing from large financial institutions. In effect, LedgerX's model provides a recipe for these large institutions to dominate market making in bitcoin options.[12] The CFTC's final rule on DCO participant eligibility was intended to ensure fair and open access to clearing services, in part by reducing concentration in the derivatives clearing market to these large entities only.[13] A more traditional margin and guarantee fund financial resource package would promote wider participation and deeper liquidity.

III. Discrimination Against Third-Party Venues

Section 2(h)(B)(ii) of the CEA requires DCOs to provide non-discriminatory clearing of swaps (which include commodity options, such as those LedgerX proposes to list) executed on unaffiliated SEFs, designated contract markets or bi-laterally. The Applications, in contrast, indicate that LedgerX's DCO will only permit clearing of products that are executed on

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11 This effect would be worsened because LedgerX would not provide for any netting of offsetting positions on opposite sides of the market. *See* Applications at DCO Exhibit A-3(E).

12 To some extent, LedgerX could mitigate this concern by offering options with smalier contract sizes. However, it is not possible to evaluate whether LedgerX has done so because it has not made contract terms publicly available.

13 *See*, e.g. Michael Greenberger, Fordham Journal of Corporate & Financial Law, Vol XVII, *Diversifying Clearinghouse Ownership in Order to Safeguard Free and Open Access to the Derivatives Markets.Available at* http://works.bepress.com/michael_greenberger/44/

the LedgerX SEF by LedgerX members.[14] This proposal is clearly inconsistent with the CEA and CFTC regulations. Nonetheless, the published portions of the Application do not explain the basis for these limitations nor do they identify any public interest benefit that would be derived by waiving the related core principle requirements of the CEA and Commission regulations.

IV. Insufficient Information Regarding LedgerX Contracts

LedgerX has provided no detailed information regarding the contract specifications for the bitcoin options it intends to list and clear. In the absence of more specific disclosures as to product specifications, including the means by which the price of bitcoin options will be determined, the public is unable to provide meaningful comment on the characterization or economic utility of LedgerX's listed products. It is also impossible for the public to provide meaningful comment on the susceptibility of LedgerX's contracts to manipulation, or the financial integrity implications for the DCO, without further disclosure of these details.[15]

V. Conclusion

Development of a regulated market and clearinghouse for virtual currency hedging would be beneficial for the growth of the sector and would help accelerate its use and acceptance by the traditional financial markets. That said, as described above, LedgerX's proposal incorporates untried elements, deviates from core principles applicable to the proposed registrants and generally raises issues of significant concern. The Commission should not undermine the integrity of its regulatory framework for DCOs and SEFs in a rush to promote the establishment of a regulated virtual currency derivatives market. Instead, the Commission should encourage new trading and clearing ventures, including LedgerX, to develop structures that comply fully with, or otherwise reliably satisfy the policy objectives of, the CEA and Commission regulations.

Sincerely,

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14 Applications at DCO Exhibit A-3.

15 *See* CFTC Regulations § 37.300 (permitting SEF trading "only in swaps that are not readily susceptible to manipulation.").