Regulatory Notes on Bitcoin and Other Cryptocurrency Derivatives

Six things every investor, start-up, financial institution and payment processor should know about the future regulation of Bitcoin and other cryptocurrency derivatives.

With the quickly developing market for cryptocurrency derivatives and seemingly inexhaustive possibilities of applications on the blockchain protocol, the U.S. Commodity Futures Trading Commission (CFTC) is keeping a watchful eye, though has not formally announced any policy or regulatory regime for cryptocurrency derivatives. This article considers the current U.S. derivatives regulatory regime of the CFTC and its applicability to Bitcoin, other cryptocurrencies, and the blockchain protocol. We also discuss practical considerations for those entering the market and what future CFTC regulation of cryptocurrency derivatives and blockchain technology may look like.¹

1. The CFTC is keeping a watchful eye on Bitcoin, but has not yet formalized any regulatory position on Bitcoin and Bitcoin derivatives products.

The advent of Bitcoin and other cryptocurrencies has drawn attention from the CFTC. Despite the volatility (and because of the volatility) firms are looking for ways to leverage Bitcoin for investment and hedging strategies. As more retailers, payment processors and financial institutions begin to use cryptocurrencies as a form of payment, the need to hedge the risk of volatility naturally will grow. The growth of the derivatives market for cryptocurrency is a natural result of the nascent cryptocurrency market. Not only will users of Bitcoin see an increasing need to hedge the risk of volatility in the value of Bitcoin, but increasingly investors are surveying the landscape for investing in Bitcoin and other cryptocurrencies.

In the fall of 2014, the CFTC held an open meeting to discuss Bitcoin derivatives just as the first swap execution facility was launching the first Bitcoin derivative. Since this meeting, the Commission has cleared up any doubt as to whether or not Bitcoin would fall under the CFTC’s purview. CFTC Chairman Timothy Massad has stated that “derivative contracts based on a virtual currency represent one area within the [CFTC] responsibility.”² CFTC Commissioner Wetjen similarly has stated that the definition of commodity “could be read to include Bitcoin, in which case the CFTC would have authority to bring enforcement actions against anyone who attempts to manipulate the virtual currency…and ensure to the greatest extent the integrity of the derivatives markets, including those for Bitcoin swaps and other virtual currencies.”³

While we know the CFTC is considering the issue, other than several public statements, however, the CFTC has not yet formalized any regulatory position on Bitcoin and other cryptocurrency derivatives products. Parsing through the overarching regulatory umbrella of the CFTC and its applicability to Bitcoin
derivatives will be a bit daunting, but an exercise the CFTC will need to undertake as the market continues to increase demand for synthetic exposure to Bitcoin and other cryptocurrencies. Moreover, the CFTC will also need to consider its regulatory authority with respect to other digital capabilities on the blockchain protocol, such as “smart” contracts (more on this to follow below).

2. Increased activity in the Bitcoin derivatives space in the US has raised questions as to how the CFTC will regulate the commodity.

Last year, the CFTC approved the trading of a Bitcoin non-deliverable forward (Bitcoin NDF) on TeraExchange, whereby the settlement rate is determined using a proprietary Bitcoin Price Index. The trading of the Bitcoin NDF was the first swap execution facility to introduce such a derivatives product on a swap execution facility (SEF) in the United States. Since then we have witnessed increasing activity in the cryptocurrency derivatives space in the United States. North American Derivatives Exchange followed TeraExchange by offering a Bitcoin option contract referencing TeraExchange’s proprietary index. And, LedgerX has applied for registration as a SEF and a derivatives clearing organization (DCO) hoping to become the first Bitcoin options exchange. SolidX Partners offers institutional investors total return swaps on Bitcoin and Hedgy is offering “smart” forward contracts, referencing the Bitcoin price index which TradeBlock developed.

Some of the cryptocurrency derivatives products and related developing markets already logically fit into the fabric of the current derivatives regulatory landscape. Such recent trading of Bitcoin will be informative to the regulators as they are increasingly under pressure to take a view on the regulation of and market practices in cryptocurrencies derivatives that don’t fit squarely (or clearly) into the existing regulatory regime.

3. The CFTC has broad enforcement authority over Bitcoin and othercryptocurrencies.

Cryptocurrencies (such as Bitcoin) likely fall under the Commodity Exchange Act’s (CEA’s) broad definition of “commodity.” Public statements by Chairman Massad and Commissioner Wetjen tend to confirm as much. As a result, the CFTC retains broad enforcement authority over Bitcoin and other cryptocurrencies, regardless of whether or not such product is a derivative. While the CFTC’s regulatory authority is generally limited to futures, options on futures and swaps, the CFTC retains general enforcement authority over any contract of sale of any commodity traded in interstate commerce.

Additionally, the CFTC has specific enforcement authority and regulatory authority over certain retail commodity transactions (the Retail Commodity Rules). Any retail commodity transaction falling within the scope of CFTC jurisdiction under the Retail Commodity Rules is subject to certain CEA provisions — as if such agreement were a futures contract — including the provisions requiring trading such contract on an exchange registered with the CFTC. The Retail Commodity Rules broadly apply to: (a) contracts that qualify as “commodity interests”; (b) entered into with, or offered to, a non-ECP (i.e., a retail customer); and (c) on a leveraged or margined basis, or financed by the offeror, counterparty or other person. Contracts that result in “actual delivery” of such commodity within 28 days are exempt from the Retail Commodity Rules, so long as these contracts do not qualify as swaps, futures or options. The application of the Retail Commodity Rules to Bitcoin (for instance) would suggest that Bitcoin transactions (not just Bitcoin derivatives but all spot transactions) that are transacted with retail customers would need to analyze the applicability, if any, of the Retail Commodity Rules to such retail transaction.

4. Bitcoin and other cryptocurrency spot contracts will likely remain largely unregulated.
Cryptocurrency spot contracts likely will remain largely unregulated, unless a unique reason to regulate them that does not currently exist in the foreign exchange or commodity cash markets arises. “Spot” or “cash” contracts for commodities that result in the immediate or near-immediate delivery of the commodity are beyond the CFTC’s regulatory scope, other than with respect to certain enforcement authority retained by the CFTC (as discussed above). A cash or spot transaction results in the actual physical delivery of the commodity, absent extraordinary or extenuating circumstances. In the Bitcoin space, a Bitcoin spot contract (to US dollars) involves the actual exchange of a US dollar or other fiat currency and Bitcoin at the spot exchange rate (i.e., X amount of Bitcoin in exchange for X amount of US dollars). That is, both parties exchange the relevant fiat currency or cryptocurrency at settlement, so that the seller of the cryptocurrency pays the buyer of the cryptocurrency an amount in cryptocurrency equal to the spot exchange rate, payable to buyer’s designated account; and similarly the seller of the fiat currency pays the buyer of the fiat currency an amount in the fiat currency equal to the spot exchange rate, payable in the applicable fiat currency to the buyer’s designated account. This structure is no different from a spot contract involving two fiat currencies, other than the fact that one leg is a cryptocurrency. Physical cash is not customarily exchanged in non-cryptocurrency spot contracts, but rather, the custodial bank credits the account with an amount equal to the settlement amount in the fiat currency. While Bitcoin and other cryptocurrencies do not have a physical or tangible form such as fiat currencies that are exchanged, precedent exists in the non-financial commodity markets that would imply the credit of cryptocurrency by seller for the benefit of buyer in the buyer’s designated cryptocurrency account (for the specified amount) would constitute physical delivery. Moreover, such a contract would derive its settlement amount in the same way that a physically-settled foreign exchange spot contract does (i.e., by reference to a spot exchange rate).

Notably, however, unlike fiat currency foreign exchange contracts, the Bitcoin and other cryptocurrency market will need to develop a customary settlement time for a cryptocurrency spot contract as opposed to a forward contract. Presumably, cryptocurrency spot contracts (cryptocurrency to cryptocurrency) would be capable of being settled in minutes or seconds whereas cryptocurrency to fiat currency exchange contracts would likely be settled in T+2 (the typical spot settlement time for fiat currencies) given the fiat currency leg. But while we would see a different market, we wouldn’t necessarily need to see a different set of rules.

5. Whether the CFTC will regulate Bitcoin swaps and forwards as it does foreign exchange transactions, or other commodities — or if an entirely new regulatory regime will apply — remains to be seen.

Retail transactions, general enforcement authority and spot contracts aside (which some may consider the easier analysis when it comes to Bitcoin’s regulatory framework), exactly how such Bitcoin derivatives contracts will be regulated, in particular in the off-exchange and off-facility markets and the market impact that flows from such regulation is the larger, less certain issue.

For Bitcoin and other cryptocurrency swaps and forwards, the CFTC must decide whether it will regulate cryptocurrency derivatives in a similar fashion as it does foreign exchange transactions; or if cryptocurrency derivatives will be regulated in a similar way as other commodities, such as precious metals; or if an entirely new regulatory regime will apply. The effect of this choice will determine whether or not physically-settled cryptocurrency forwards and cryptocurrency swaps would be largely exempt from CFTC (including Dodd-Frank) regulation.

If the CFTC takes a position that cryptocurrency is an “exempt commodity” such as a “currency,” and that contracts referencing cryptocurrency qualify as “foreign exchange forwards” and “foreign exchange swaps,” these contracts would be subject to a much lighter regulatory regime. However other
cryptocurrency derivatives, such as cryptocurrency options and NDFs, would be subject to the full slate of regulatory requirements. In practical terms, a lighter regulatory regime for cryptocurrency foreign exchange forwards and foreign exchange swaps would mean the following:

- Expansion of a business to only cryptocurrency swaps and physically-settled forwards would not require registration as a SEF, but
- Expansion of a business to cryptocurrency options or NDFs would require registration as a SEF.

Moreover, if the CFTC takes a regulatory approach similar to the foreign exchange market, market participants would also be subject to retail off-exchange forex transaction rules. The complex history of the foreign exchange derivatives rules, begs the question, however, of whether or not transposing the foreign exchange derivatives rules on the cryptocurrency derivatives market would be appropriate. That is, the foreign exchange forwards and swaps markets developed in a dealer market which was limited to banking institutions already subject to robust capital and liquidity requirements. Such foreign exchange transactions do not carry the same risk profile as other foreign exchange derivatives — such as options or NDFs — and have a shorter tenor than other trades. Bitcoin derivatives (including swaps and forwards) are the very by-product of a non-bank peer-to-peer market. While Bitcoin swaps and forwards may be similar in some ways to foreign exchange swaps and forwards, many of the Bitcoin industry participants are largely unregulated and dissimilar to the regulated participant bank dealers that cover the foreign exchange markets.

Critical to the strategic expansion of a cryptocurrency derivatives business will be the CFTC’s position with respect to which regulatory regime will overlay the cryptocurrency derivatives market, or if an entirely new regulatory regime shall apply that adopts properties of its various regulatory frameworks for financial and non-financial commodities.

6. Applications on the blockchain could potentially revolutionize the derivatives industry — hopefully regulation won’t get in the way.

Bitcoin is but one of the many cryptocurrencies that has been and that will be developed on the blockchain, not to mention just one of the many applications that can be developed on the blockchain. The technology that can be (and is currently being developed) on the blockchain, could potentially revolutionize the derivatives industry. Technology is not new to the over-the-counter derivatives market and the futures market. In fact, the flow business of participants in the market depends on the efficient straight-through processing capabilities of the market service providers which enable market participants to trade in high frequency and high volume. Moreover, collateral management processes are crucial to the backbone operations of every derivatives clearinghouse, futures exchange, futures commission merchants and dealers. Yet, many of these processes are rickety at best and failing to keep pace with the demands of the industry. Unsurprisingly, despite the reliance on software and technology in derivatives, the blockchain protocol could certainly provide functionality currently unavailable in the listed and over-the-counter derivatives markets.

Because the messaging underlying the blockchain protocol is programmable, industry participants foresee the development of “smart” contracts whereby complex payment obligations, collateral and other terms of the agreement would be programmed into the contract without the need for intermediaries. In the derivatives world this would mean, “smart” derivatives contracts whereby parties would agree to the collateral, payment and clearing obligations, all with the transmission of a message. This process would not require the monitoring of such trade and would substantially decrease the ability for fraud or manipulation of such trade. A “smart” derivatives contract, for instance, would be set up so that parties
automatically pay ordinary course payments, automatically transfer margin upon margin calls, and automatically adjust initial and variation margin depending on the creditworthiness of the entity and volatility of the trade, respectively. The modeling for margin calls themselves could also be embedded in oracles that would function with the protocol so that such margin call was truly automated after the initial modeling was embedded in the technology. And, one could imagine, a “smart” futures contract that would embed the core principles of designated contract markets which are required under CFTC regulation. This type of contract would arguably eliminate the need for a futures exchange, or at least call into question its intermediary role while inserting a low-cost transparent platform we know as the blockchain protocol.

**Conclusion**

On the heels of Bitcoin and other cryptocurrencies (warmly referred to as Crypto 1.0), the advent of Crypto 2.0 is already upon us. And, while the market is quickly beginning to test “smart” contracts, the CFTC will need to apply the general principles of ensuring against market manipulation, reducing systemic risk and consumer protection against the protections that the protocol itself embeds on the open ledger. The CFTC will face questions of how to regulate (or “not” regulate the first “smart” futures contract) and how to align its public policy goals with the benefits that we hope the technology can bring to the market: a safer, more efficient, low-cost market. If the peer-to-peer open ledger that is the blockchain protocol proves to provide a viable and cost efficient means of effectuating futures and derivatives in an environment that protects against market manipulation and reduces systemic risk, the CFTC will need to rethink many of its applicable rules regarding intermediation, retail, contract markets and more. First, however, the CFTC will need to tackle how it will regulate Bitcoin and other cryptocurrency derivatives, the first of many iterations on the blockchain to come.

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Endnotes

1. Note, this article focuses solely on the applicability of CFTC regulation to cryptocurrencies and the blockchain protocol and does not address the regulatory framework for Bitcoin and other cryptocurrencies as it relates to state money transmitter laws, SEC regulation, prudential regulation or tax. Any platform or transaction settling in Bitcoin or other cryptocurrency or application utilizing blockchain technology will need to account for the potential applicability of these rules and any other applicable rules.

2. CEA Section 2(c)(2)(D).


4. The fact that a sales contract stipulates conditions under which the obligations of delivery may be excused does not necessarily have the effect of voiding the contract from being considered a spot contract. Force majeure clauses, for example, if triggered, may cause parties to agree to liquidated damages in lieu of physical delivery. So long as alternatives to physical delivery are exceptional, there is little risk that a spot contract could be recharacterized into a futures or option contract or similar instrument. See Philip McBride Johnson, Thomas Lee Hazen, and Susan C. Ervin, DERIVATIVES REGULATION, (Successor Edition to Commodities Regulation, Third Edition), §1.12 (citing to CFTC v. Zelener, 2003 WL 22284295 *4 (N.D.Ill. 2003); CFTC v. Frankwell Bullion Ltd, 1994 WL 449071 (N.D. Cal. 1994).

5. The CFTC has also previously addressed the issue of how to consider physical delivery of an “intangible” commodity in the market of nonfinancial commodity transactions, such as environmental transactions. The CFTC has stated that “an intangible commodity (that is not an excluded commodity) which can be physically delivered qualifies as a nonfinancial commodity if ownership of the commodity can be conveyed in some manner and the commodity can be consumed. See Further Definition of “Swap,” “Security-based Swap,” and “Security-based Swap Agreement” Mixed Swaps, Security-based Swap Agreement Recordkeeping, 77 Fed. Reg. 48208,48233 (Aug. 13, 2012). While not expressly on point, the analysis of the CFTC with respect to environmental commodities implies that the “physical” component of delivery would not be a literal translation but rather a facts and circumstances approach.